THE LAND REPORT

Fall 1992 Number 45

Contents

Number 45 Fall 1992

PHOTOGRAPHS: Thanks to Terry Evans for the photograph on page 15 and to Cynthia Vagnetti for those on pages 23-24. The rest in this issue, were taken by Laura Sayre, Volker Vittig, Supi Seshan, and Sara Wilson. Sara Wilson made the prints in The Land's darkroom..
SKETCHES: Former Editor Jake Vail's mark on this publication remains with the New Roots logo on page 12.

On the Cover

An unusually rainy July brought high waters in the Smoky Hill River that borders The Land on the west. Cropland on the opposite side was cut away, soil and trees washed out upstream were deposited in the middle. The River is a constant reminder of the failure of conventional agriculture to abosorb rainfall and hold the soil in place and illustrates the importance of The Land's ' mission.

The cover photograph is the work of Sara Wilson.

In This Issue

The interns finished their fall term working frantically on their research papers for presentation at Kansas State University and Kansas University and getting their written reports turned in. (No matter how carefully we plan, the crunch always comes in November and December.) Several found that they could not write *Land Report* articles they had wanted to write and also fulfill their research responsibilities, and for awhile we wondered if there would be a fall issue. But, Tonya, Supi, Ted, Darryl and Corey persevered with their writing and rewriting; Mark Sagoff, Jim French and Anne Fitzgerald gave us permission to reprint their articles, and Sara turned out some great prints in the darkroom, and here it is, number 45.

Images have been important in our publication, due to the early influence of our arts associate Terry Evans. One advantage of having fewer articles this time is the opportunity to give more space to images.

Since number 45 is the final issue this editor will ever produce, we confess that some nostalgia creeps into a few articles, and we hope readers will forgive this indulgence.

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THE LAND INSTITUTE

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THE LAND INSTITUTE IS A NON-PROFIT EDUCATIONAL-RESEARCH ORGANIZATION DEVOTED TO SUSTAINABLE AGRICULTURE AND GOOD STEWARDSHIP OF THE EARTH

STAFF: Stam Amick, Marty Bender, Mary Handley, Dana Jackson, Wes Jackson, John Jilka, Peter Kulakow, Tom Mulhern, Linda Okeson, Jon Piper, Sharon Thelander, Louise

Visitors Eat Perennial Grains

Corey Samuels

Fall Visitors' Day is The Land's annual open house afternoon designed to entice both local folk who are new to The Land Institute and those old friends who will take any excuse to check out the latest goings-on here. This year, on October 4, sunny weather with just a touch of the cool bite of fall provided the perfect day for faces both old and new to explore The Land Institute.

Standard fare at Visitors' Day includes tours of the grounds and research plots, a prairie walk, and several talks or panels. The rainy summer and lush growth made the prairie walk especially colorful. New projects at The Land are always food for thought, and this year Marty Bender and Ray Dean hosted workshop discussions on the new Sunshine Farm project, inviting feedback and ideas from the audience. Land alumni Patti Boehner, Vern Stiefel, Volker Wittig, and Ann Zimmerman returned to take part in a panel discussion about the intern program. The participants entertained themselves as well as their audience with their stories of the best and worst memories of their years here, and told how their internship influenced paths they have taken since leaving The Land.

A special feature at this year's Visitors' Day was long-time friend Harry Mason appearing in honor of the release of his book *Life on the Dry Line* (see page 31). Harry signed books and told stories to interested visitors. Harry's book describes the early days of the automobile in Kansas, and to add authenticity, local collectors displayed two vehicles of that era. William T. Graves of Salina brought a 1926 Model T, and Ron and Thelma Winters of New Cambria showed their 1937 John Deere tractor.

The gallery featured an exhibit of Minnesota landscape photographs by artist Nancy Hanauer and Kansas clay pottery by Salina artist Brad Anderson. Nancy was on hand to discuss her work with visitors.

Intern Sara Wilson added a special twist to the refreshments served following the programs: Land Institute perennial grains. She took responsibility for getting the grains ground into flour and adapted standard wheat flour and corn meal recipes for them. Sara and other interns shared the baking and turned out an impressive array of refreshments. For the first time ever, guests at The Land were invited to sample baked goods featuring the fruits of our research work. Eastern gamagrass carrot cake, pumpkin pie with a perennial grain sorghum crust, and perennial rye bread made by the Great Plain Bread Company headlined the menu. Amazingly, the food was as good as the conversation, making a fun and tasty end to a great day.

"If the perennial grain project at The Land Institute ever goes commercial, American cooks have a treat in store for them."

Joan Morrison
Topeka Capital- Journal

Interns Create Visitors' Center

Tonya Haigh

Public education at The Land Institute most often takes the form of visits and tours. This provides opportunity for interested persons to talk with interns and staff members, to see native unplowed prairie, and to ask questions about our research in perennial polyculture. The Land, however, has never had an information center for the public. The research library contains some information about the research program, and the business office displays visitor guides and pamphlets that are distributed by office staff as needed, but there is no place to read about our history or get an overview of our objectives.

Staff, interns, and visitors all have suggested that we need a space designed to educate and orient the public to our work. This summer, intern Emily Pullins initiated conversations to plan the proposed visitors' center. Her energy helped to spark others into taking personal responsibility for different aspects of the project. We identified the front half of the Kreibbel House garage as an excellent site, as it is very accessible and opens into the gallery which occupies the back half of the room.

With Visitors' Day as our goal, we began work on "phase one" this summer, which included a thorough cleaning of the space and a paint job. Stan Amick and Laura Sayre imported a set of storage cabinets and a display counter, which had been discarded by the former Marymount College. Emily compiled two notebooks containing magazine articles about people associated with the Land and publications written by people at The Land, which will be kept current. Tonya Haigh organized a display containing basic information about our mission, current research projects, and an introduction to the concepts and plants we study. Sara Wilson and Supi Seshan, our photography crew, created a display featuring photographs of all the "People of The Land." It will be a permanent (though changing) addition to the Visitors' Center.

Sharon Thelander is ready for Visitors' Day registrations in the new Visitors' Center.

The work that interns began this year leads us to imagine many future improvements for the Vistors' Center. One day we hope to replace the garage door with a permanent wall and transform the space into a room that can be heated and used all year round.

Sunshine Farm Scientific Advisory Committee to Meet

A Scientific Advisory Committee for the Sunshine Farm has been chosen and will meet with staff at The Land Institute on January 16-17 to give Marty Bender's project design a critical and thorough review. The members are as follows.

Richard Cartwright Austin: (Convenor) Environmental theologian, Chestnut Ridge Farm, Dungannon, VA.

Miguel Altieri: entomologist and agroecologist, U.C., Berkeley, CA and Chile.

Orville W. Bidwell: Emeritus Professor of Soil Science, Kansas State University.

Jim Dyer: Director of the Water and Agriculture Programs, Rocky Mountain Institute, Snowmass, CO.

Rhonda Jahnke: Research Director at Rodale Institute Research Center, Kutztown, PA.

Fred Kirschenmann: organic farmer, Windsor, N.D., Pres. of Northern Plains Sustainable Ag. Soc.

Stewart Smith: Dept. of Ag. & Resource Economics, Univ. of Maine, former Maine Commissioner of Ag.

Garth Youngberg: Executive Director of the Institute for Alternative Agriculture, Washington D.C

The Sunshine Farm is to be a ten year research project combining traditional farming methods with recent scientific findings and technology . A central question is how much agricultural productivity can be maintained on a sunlight-powered farm that sponsors its own inputs without fossil fuels.

Sunshine Farmer Hired

Darryl Short

This fall, the staff began preparations for the coming year's inauguration of the Sunshine Farm Project. (See *Land Report* #44 for more information on the project.) An important first step was the search for a farm manager with the practical expertise to oversee a variety of farm operations and alternative technologies. In addition to knowing how to care for chickens, pigs, and cattle, the farm manager must know how to work with draft horses. The cropping plan requires someone with knowledge of the growing needs of many crops. Furthermore, the farm manager must understand alternative energy systems since the project will employ photovoltaics and wind generators as well a tractor fueled by soybean oil. We were afraid that we'd never find a person able to assume so many diverse responsibilities, as well as someone creative, engaged, and lively enough to act as an educator and as an articulate spokesperson for the project. To our delight, we did find such a person, Jim Huskins.

Jim, who will arrive at the Land in mid-January to take the position of Sunshine Farm manager calls himself "a generalist in a world hell-bent on specialization". He attended St. Louis Christian College for two years, followed by two years at Milligan College in Tennessee, where he pursued an English major and theology minor. In 1977 he married Beverly Hensley who shared his belief that environmental degradation is directly related to lifestyle choices. Together they acquired a four and one half acre homestead on which they experimented extensively with gardening, home dairy and meat production, wood and passive solar energy, and other elements of a low impact lifestyle. In 1979 they began farming with draft horses. Since then Jim and Beverly have continued to practice subsistence and part-time farming in North Carolina, Tennessee, and most recently, Pennsylvania. Along the way, Jim has gained experience in livestock husbandry, draft horses farming, carpentry, mechanics, plumbing, wiring, welding, and harness making. In addition, he entered the pastoral ministry in 1987 and currently pastors the Rummel Church of the Brethren in Pennsylvania.

Next spring on south Ohio street in Salina, you may be surprised to pass an Amish buggy. The Huskins family aren't Amish, but they do see simplicity as a positive approach to modern problems. Jim explains, "We see the use of the buggy and bicycle not as a step back but as a progressive move towards something that's sustainable." Jim and Beverly Huskins may well be the farmers of the future.

1993 Research Fellow Chosen

Each year the research staff asks one intern to stay on for the next year as a research fellow. Corey Samuels was chosen by the staff to be the Research Fellow for 1993. Her main responsibility will be to provide continuity and to ease the new group of interns into the research philosophy and procedures of The Land Institute. Corey will coordinate intern field work and assist staff with the research and education program. She will begin her new position on January 4, 1993.

Corey graduated from the University of Arizona in 1991 with a degree in political science. She also studied chemical biology at Stevens Institute of Technology in Hoboken, New Jersey, and before that she worked on a kibbutz and attended Jerusalem's Hebrew Union College.

During her 1992 internship, Corey took on special responsibility as an assistant to Tom Mulhern in development and planned Fall Visitors' Day.

Friend of The Land Makes Generous Gift

The Land Institute recently received a $25,000 anonymous gift from a Friend of The Land. The donor gave us several options for the use of this generous contribution, and we have decided to use it to support our ongoing perennial polyculture research. In the brief letter that accompanied the check, the donor stated: "It is a pleasure to contribute to an organization as respectful of nature, as supportive of idealism and as free of commercialism as The Land Institute." We are very grateful to this unknown benefactor for the wonderful gift and the interest that inspired it.

Dana Jackson Takes New Position

Dana Jackson has resigned her position as Director of Education and editor of *The Land Report* at the end of the fall term, December 11. She will begin a new job as Senior Program Associate with the Minnesota Food Association in St. Paul, Minnesota, on January 4, 1993.

The mission of the Minnesota Food Association (MFA) is "to form an urban-rural coalition of informed, connected and activated citizens committed to the development of a sustainable food and agriculture system." The ten year old membership organization grew out of a campaign by farmers and urban dwellers to save the Farmers' Market in downtown St. Paul. Although the city allowed a hotel to be built on the market site, the organization convinced city officials to find an alternate site for the market, where it still stands.

Dana will have major responsibility for MFA's program of public policy research, education and advocacy. Though specific subject areas change over time, the current focus is on land grant university accountability, community supported agriculture development and on biotechnology policy. MFA and other organizations successfully influenced the Minnesota Legislature to establish the Institute of Sustainable Agriculture at the University of Minnesota and pass legislation regulating releases of bioengineered organisms. Dana will monitor sustainable agriculture and biotechnology policy in Minnesota for MFA.

Dana co-founded The Land Institute in 1976 with Wes Jackson and served as co-director from 1979 to 1989 when she became Director of Education and a member of the Management Team. During her sixteen years of association with The Land, some of Dana's responsibilities included writing grant proposals, editing *The Land Report*, designing and planning twelve Prairie Festivals, coordinating the student intern curriculum called Considerations for a Sustainable Society, organizing the biennial organic garden workshop and other public programs, managing the garden, and developing and supervising the library. Working with interns has been her favorite part of the job.

In 1991-92, Dana participated in the Mid-Career Program at Harvard's Kennedy School of Government and earned a master's degree in public administration.

Dana invites friends and colleagues to contact her at the Minnesota Food Association, 2395 University Avenue, # 309, St. Paul, MN 55514. Phone (614) 644-2038 after January 4, 1993.

Interim Director Hired

John Ellefson of Richland, Nebraska, has been hired to be the interim Director of Education beginning in January. The Land Institute Board of Directors and staff will evaluate and perhaps redesign the education program before hiring a permanent replacement for Dana Jackson.

Since 1969 John has been self-employed in subsistence farming, with two to three months a year spent working away from the homestead in general construction and remodeling and occasional college teaching for a quarter or semester. He has built two houses for his family using alternative techniques, locally available or recycled materials. His current home is heated by wood and solar and relies upon a windmill, gravity-fed water system.

John served in the U.S. Marine Corps from 1956-58 and graduated magna cum laude from Harvard University in 1961. In 1967 he received a Ph.D. in anthropology from the University of California, Berkeley. His dissertation was on the natural history of gibbons in the Malayan Peninsula. John then spent two years in a post doctoral fellowship in the Department of Psychiatry at Stanford University.

John is an accomplished gardener and a member of the board of directors of the Nebraska Sustainable Agriculture Society.

A Dialogue about Education at The Land

Dana Jackson *Tonya Haigh*

One October afternoon, Tonya Haigh and I sat in my office and talked about education at The Land Institute. Although The Land has become well known for its unique research program to develop perennial grain crops in mixtures that mimic the prairie, it is primarily an educational institution, not an agricultural research station. The intern program is one part of our educational mission. Public education is the other.

Tonya will soon complete her internship, and she reflected on what she had learned in the ten month period and her impressions of the educational program. I will soon leave my job as Director of Education and a sixteen year association with The Land Institute, and I reflected upon the evolution of The Land's intern program and the history of my involvement in many diverse educational programs and activities.

We decided to translate our conversation into a dialogue by way of side-by-side essays. First we talked about the intern program, then traded thoughts and experiences related to The Land's public programs.

D. J.

I've been involved in the intern program at some level since we began The Land Institute in 1976. In the first couple of years, I just cooked soup on Wednesday for everyone. Gradually I began sitting in on classes that Wes taught, then we co-taught some classes, then we divided the curriculum with parts for us and other staff members. I had enjoyed teaching high school English and organizing and presenting League of Women Voter studies, and found The Land's classroom was a stimulating variation of both. By the time we started the intern program in 1983, I was coordinating the curriculum schedule, although Danielle Carre, as intern coordinator, did it in 1986.

Research-related material dominated in 1983, 1984 and 1985, but we included "Sustainable Society" classes as early as 1984. In 1986 a staff-board-intern committee looked closely at the curriculum and decided to reduce the research readings to 40-50% of the whole to allow more emphasis on "Considerations for a Sustainable Society." I coordinated staff choices for the curriculum based on agreed-upon goals and objectives after I became Director of Education in 1989. Jake Vail and I developed a useful program outline in 1991.

The Land Institute isn't a college. Interns have finished undergraduate degrees already, and generally, they aren't looking for a college experience. They are personally motivated to learn, and most are voracious readers, so being a teacher has a different meaning in the Land Institute classroom. Initially, I was self-conscious about "teaching" interns, because I didn't have a PH.D. with depth in a particular field like Jon, Peter and Mary. I was afraid interns would feel cheated if I led classes, so I took on the role of facilitator. (In the past couple of years, I've come to believe that my experience as an environmental activist and my years at The Land Institute do give me something to contribute to the interns' learning, and I'm not as apologetic for being a generalist.)

I think The Land's basic philosophy of education includes the importance of always being both teachers and learners of one another. It seems very simple, and yet in most of our education system in this country, the two are separate and thus unequal. The instrument we have named countless times in this ideology is dialogue. Dialogue is our tool for listening and responding to one another, for building a whole consciousness which can be greater that its parts. Yet however well we can name and describe and analyze this process, it is still an ideal with which we struggle. Dialogue is tricky.

Skills such as listening and responding are often not included in our public or private education, and may be, in fact, trained out of us. We are instead taught to be passive sinks of knowledge, our input not to be part of the process of learning, but rather a reflection of the product. We learn to edit our comments and to be "right" every time we speak up. This sort of interaction limits our abilities to hear and to reflect. I think we found this year that factors, such as interpersonal relationships and our own individual histories, affect our abilities to accept and give. As eight interns coming from different places, with a wide range of academic backgrounds and unique experiences, we have language barriers and often lack common understanding of technical and philosophical concepts. A good portion of our internship has been spent figuring out what each of us is saying.

The format for warm-up and class at The Land requires us to take responsibility for thinking, teaching, and listening to one another. We have no lecturers, only a circle of chairs and a reading or idea to focus on. Warm-up, a time devoted to free-flowing discussions three mornings a week, has challenged us to bring our lives and interests into the circle. We are encouraged to discuss ideas or current events from recent reading. Sometimes it's difficult and awkward because it means someone must take responsibility; sometimes it's spontaneous and entertaining and thought provoking.

Dana

My approach to teaching classes was to find good questions to open discussion, to encourage students to make connections between the assignment and other materials we had read, and to stimulate critical thinking. I've tried to affirm each intern and develop an atmosphere that invites them all to participate in the discussion. We've had wonderful classes when everyone reads the assignments and participates. But sometimes I chose readings that interns didn't appreciate or assigned too many pages out of a long and repetitive book, and class discussions didn't go anywhere.

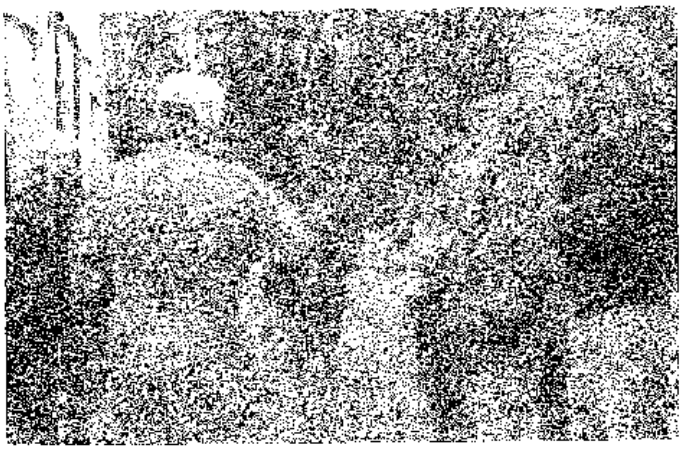
Before I became so involved with the interns, I organized more public educational programs. The first one was a conference in 1978 called "Soft Energy Paths: Energy Policy for a Shrinking Planet," featuring energy scholar Amory Lovins and Ruth Hinerfeld, President of the National League of Women Voters. In the early days we offered discussion evenings around particular books like Herman Daly's *Economics, Ecology and Ethics* and sponsored panels on land use and workshops on wood burning stoves, solar energy and gardening. We invited the community to "Evenings with" writers and thinkers visiting The Land. Conn Nugent and Wendell Berry have been featured speakers at such evenings several times, most recently, this past spring.

In the early 1980's The Land was particularly involved in issues relating to energy policy, and I wrote newsletters urging Friends of The Land to attend public hearings on electric utility rates. We spoke at these hearings and at rallies opposing the construction of the Wolf Creek nuclear power plant. *The Land Report* contained many energy-related articles; some of the finest were written by board member Ivy Marsh. All of these activities were part of our public education program about energy.

Some students wanted to organize special events, and I supported them and helped when I could. In the spring of 1980 Deb Parks organized an Earth Day Celebration on the Green by Government Center in Salina, and the following fall, Paul Rasch put together an all day energy fair with exhibits and kids' programs and a ceremony with Governor Carlin giving out awards. In 1985, Mary Bruns worked with the Kansas Rural Center to bring rural women together at Kansas State University to discuss "The Role of Women in an Changing Agriculture."

I've always seen the annual Prairie Festival as an educational program. True, it is a celebration of the prairie ecosystem and prairie folk, but a celebration with a theme and an exploration of serious ideas. Among the twelve themes I've invented, my favorites are "Soil and Seeds: the Sources of Culture," and "Citizenship and the Land Ethic." Developing themes through speakers and panelists has been like producing a play. I knew the basic plot, but it didn't develop until I had

Tonya



Emily, Dana, Darryl, Tonya, Ted & Chad listen to Jim French describe his livestock.

In warm-up, staff and interns also bring up issues about new projects, management decisions and the ethics of our activities. For instance, Marty Bender and Ray Dean provided us with an outline of the proposed Sunshine Farm project, and asked us to participate in a general meeting about it. The discussion led interns to a better understanding about energy accounting and experimental design. Also, we introduced new questions and ideas to the discussion that challenged assumptions in the design of the experiment; for instance, traditional gender roles. Considering such issues at The Land in warm-up allows us to look at our work critically and to acknowledge how hard it is to induce change in society. We also experience the frustration that comes of contributing ideas which are never pursued. For groups of interns who dream of educating a society to be more sustainable and bringing about change, this process seems invaluable.

Our experience here would be incomplete without the interactions we have with Kansas State professors, rural activists, and farmers and ranchers. We learn a great deal by interacting for short periods of time with people away from The Land Institute, who may or may not share all our assumptions.

Learning at this level occurred this year when we visited Lisa and Jim French on their diversified farm. They showed us a field with strips of alfalfa, milo, and Austrian winter peas and explained their rotations. We listened to them explain the reasons they chose to raise a particular breed of cattle. We enjoyed sitting inside their house and talking with them about why they came back to farming and what their small community is like and what their favorite books are.

We also visited the Flint Hills ranches of Jane Koger and Pete Ferrell and learned about their concepts of grazing as part of a natural ecosystem. We toured Pete's land and argued about cattle versus bison with him and ended up questioning our own assumptions

Dana

chosen the actors and actresses. And everyone who attended was a player.

My goal was to encourage a high level of participation. We wanted people to ask questions and engage the speakers and other participants in dialogue. We believed that too many people at an event would discourage this from happening, so we tried to plan several events at the same time to spread out our audience. Attendance has increased so much since our first festivals that we have difficulty finding enough places to schedule the number of programs we need. I'm worried that large audiences will decrease the educational impact for everyone. We've forbidden the Prairie Festival to be filmed on video cameras. It isn't an event to be enjoyed passively later; we want those who come to be engaged while it happens.

The Land is a sort of magic place, I think. It attracts people who want to tune in their ecological consciousness for intellectual growth, inspiration, and sharing. They find the physical place appealing in its unrefined "prairieness." They are intrigued by our unique vision for agriculture and charmed by our annual crop of interns. I hope The Land Institute will continue to respond to this interest and provide diverse opportunities for many people to discuss Considerations for a Sustainable Society.

Darryl Short cleans the classroom chimneys.

Tonya

and knowledge. These experiences added new dimensions to our thinking and stirred up countless small and large group discussions.

We join the rest of the staff as educators when we are involved with public outreach. Yet our tours not only let us practice explaining our work and ideas in an understandable and interesting way, but often end up to be a real two-way interaction between tour-guide and visitors. One of the most educational experiences I can remember came after a week of discussing gender roles in class. We had looked at a variety of readings about women's historical roles on the farm and how they are changing and talked about our ideals of how a farm family or community might be structured. At the end of the week, Sara Wilson and I gave a tour to a farm women's extension group. A wonderful dialogue ensued—an exchange of questions and life-experience—and a reminder that people living on farms don't necessarily share our concerns and ideas, and that they have plenty of their own. The experience was valuable not only in supplementing our week of readings, but in demonstrating to us the limitations of our readings, theory, and experience when relating to the world beyond The Land Institute.

Tonya, Sara, Supi & Emily chjoy a warm place in the sun

Intern Network News

Dana Jackson

In October I mailed 132 letters to former students and interns informing them of changes to come at The Land Institute and asking them to return survey forms reporting on their activities and occupations. Ninety-seven alums replied by December 8; most of them wrote letters on the back side. What a treat it was to read their news and catch up on changes in their lives. Spouses, significant others, and children have increased the size of the Land "family." Travel, education and job experience have increased the breadth of knowledge, expertise and contributions they now make to society.

The survey shows more alums involved in farming or graduate school than in any other category. This is the outcome we wanted. However, alums work in many different fields, and some are searching for a field. Here's a summary .

Farming	23
Graduate School (GS) Total	27
Agronomy & other Ag.-related fields	7
Ecology	7
Other Biological Sciences	5
Environmental Planning or Policy	2
English, other	6
Social Services or Government	19
Private Business	15
Teaching	9
Other	9

From the returned forms and word of mouth information (also included in the summary figures), I've made a brief directory organized by the year interns were at The Land. It tells where they are and their occupations, and omits (because of time and space) other really important details about their health, children, citizenship activism, travel, crafts and music.

If there are interns reading this who did not receive or return the form, I ask them to please send their current addresses to Sharon Thelander at The Land. If I lost a form and omitted someone, I apologize.

The Land Institute intern network has been helpful to many former interns. Alums from different years have met and decided to share apartments. Current interns have been welcomed as visitors in homes of former interns. Some alums moving to new cities have sought information or advice from former Land people living there.

The network has certainly enriched my life this past year. Several East Coast former interns visited me in Boston during my leave of absence , and Alisa Coffin even shared Thanksgiving dinner with me as she had with my family nine years before when she was a Land student. And this past fall I saw Beth Gibans in Santa Cruz, California, Colin Laird at the Rocky Mountain Institute board meeting in Colorado and Roger Leibovitz in Burlington, Vermont. When I move to St. Paul, I'll look up Holly Ewing, Mark & Carol Gernes, and Kyle Mansfield. After December 29, my door will be open to former interns at 689 S. Snelling, #201, St. Paul, Minnesota.

Intern Alumni Directory

1991
Adam Davis: Brown Univ., GS biology teaching
Tim Coppinger: Food Bank Farm, Hadley, MA
Teresa Jones: Univ. of Mass., science classes
Michelle Mack: U.C. Berkeley, GS Plant ecology
Charlie Pedersen: Univ. Florida, GS Botany
Laura Sayre: Princeton Univ, GS English
Volker Vittig: Salina, engineer, Kejr Engineering
Sarah Jane Williamson: Grindstone Farm, Pulaski, NY

1990
Kathy Collmer: Minneapolis, KS, Farming & writing
Holly Ewing: Univ. of Minnesota, GS ecology
Jean-Luc Jannink: Univ. of Maine, GS agronomy/ecology
Tamara Kraus: U.C., Davis, GS agronomy
Tracy Noel: Recently at Ehrhardt Organic Farm, Knoxville, MD— now traveling
Doug Romig: Univ. of Wisconsin, GS Agronomy (soils)
Kristin Schaefer: Portland, OR, Montessori teaching

1989
Brooks Anderson: Univ. of Wisconsin, GS Rural Sociology
Nancy Baumeister: OR State Univ., recent MS, agroecology
Pamela Cubbage: Putney, VT, employed at pottery & bakery
Bernadette Jilka: Tucson, Az, Wildland Restoration Co.
Colin Laird: U.C., Davis, GS community development

1988
Laura Benson: Viroqua, WI, working with Kickapoo Organic Resource Network
Jennifer Delisle: Univ. of Nebraska, GS wildlife ecology
Karen Finley: Oregon State Univ., GS ecology
Beth Gibans: soon in San Francisco to learn skills to open a garden/restaurant business
Douglas Towne: Phoenix, AZ, AZ Dept. of Water Resources
Jake Vail: recently at Ehrhardt Organic Farm, Knoxville, MD, now traveling

1987
Patti Boehner: Univ. of Nebraska, GS agronomy
Doug Dittman: Raymond, NE, farming
Bruce Kendall: Univ. of AZ, GS ecology
Veronica Mecco-Ray: Lawrence, MI, Sunshower Farm

1986
Patrick Bohlen: Ohio State Univ., GS ecology (soils)

Brad Burritt: Hotchkiss, CO, farming & art
Mark Gernes: Maplewood, MN, MN Pollution Control Agency
Guy Grigsby: Erie, CO, runs own 57 acre organic farm
Roger Leibovitz: Univ. of VT, GS Env. Planning
Melissa Sarlat: Montague, MA, organic market garden
Mark Slater: Santa Fe, NM, garden-landscape business

1985
Mary Ann Bruns: Michigan State Univ., GS Crop Soil Sciences and Ctr. for Microbial Ecology
Danielle Carre: Hotchkiss, CO, farming & art
Michel Cavigelli: Michigan State Univ., Microbial Ecol.
Steve Ela: Hotchkiss, CO, Silver Spruce Orchards
Juli Kois: Carrboro, NC, preschool teacher & food coop
Carol LaLiberte: Weston, MA, massage therapist and landscape design/ permaculture business
Vernon Stiefel: Kansas State Univ., GS entomology
Holly Winger: Fayetteville, AR, Information specialist for Appropriate Technology Transfer for Rural Areas

1984
Mike Berghoef: Grand Rapids, MI, Chief of Staff, Outpatient Substance Abuse Therapy, also GS Social Work, W. MI
Lois Braun: Americus, GA, Koinonia Farm, farming & on-farm research
Janine Calsbeek: Orange City, IA, feature story writer for weekly newspaper
Tony Martin: Big Island, VA, teaching & farming
Dana Price: Denver, CO, Peace Corps returnee applying to GS in ethnobotany
Martin Gursky: New Germany, Nova Scotia, farming & on farm research
Kirk Riley: Michigan State Univ., GS Env. Policy & Econ.
Ann Zimmerman: Manhattan, KS, Flint Hills Legal Services (for low income people)

1983
Helen Attohowe: Stevensville, MT, Plant Production Manager, Bitterroot Native Growers Inc.
David Burris: Floyd, VA, Environmental Health-Soil Studies for drainfields and well placements
Rev. Hugh (Ruskin) Gould: Shasta, CA, monk at Shasta Abbey training to become full priest
Debra Israel: Albany, NY, legislative fiscal analyst for NY Assembly Ways & Means Committee
Willow Leanders: Salina, KS, teacher-homemaker
Cary Nailling: Chapel Hill, NC, farmer, licensed appraiser
Alex Stone: Ohio State Univ, GS plant pathology

1982
Denise Attwood: Spokane, WA, Importer of Tibetan hand crafts, Director of Tibetan Rights Campaign
Alisa Coffin: Harvard, GS landscape architecture
Regina Grabrovac: Morrill, ME, farmer (CSA)
Barry Moir: Magnolia, MA, works at furniture store & natural food store, Solar Energy Assn. board member
Marvin Pauls: Missoula, MT, high school art teacher
Jan Ryan: Lansing, MI, Director- Community Garden
Stuart Slote: C. Calais, VT, Vt. Public Service, Energy Efficiency and GS, Univ. of VT, Public Administration
Stan Tippin: Merriam, KS, Midwest Research Institute

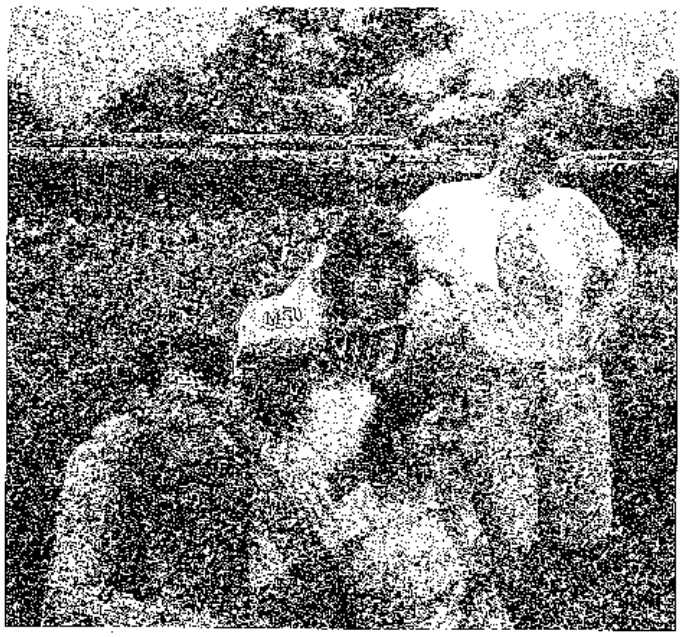
1981
Deb Parks: Sioux FAlls, SD, teacher of Dressage
Nora Kelleher Pepi: Williamsburg, MA, farming
Marie Rasch: Conklin, MI, orchardist, IPM consultant
Annie Ronsse: Anchorage, AK, teacher of 2nd grade
Dennis Ronsse: Anchorage, AK, H.S. counselor
Jean Strammel: Fort Hays State, GS Biology
Margo Thompson: Stanford Univ., GS Construction Eng.
Max Vogler: Boulder, CO, acting, directing, teaching

1979
Curtis Carroll: Eagle Butte, SD, Judge, Cheyenne River Sioux Tribal Court
Mari Sorensen Detrixhe: Clyde, KS, farmer
Jeanne Green: Eugene, OR, recent move, in transition
Karl Parker: Galway, NY, Senior Wildlife Biologist, NY State Dept. of Environmental Conservation
Karl Zimmerer: Univ. of Wisconsin, Madison, Asst. Prof., Dept. of Geography

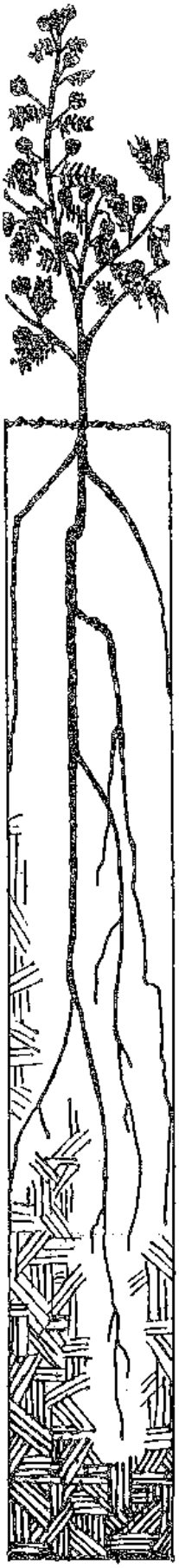
1978
Marty Bender: The Land Institute, Farm ecologist
Tom Birt (Moore): Olathe, KS, teacher of Jr. High gifted
Jefferson Brown: Manhattan, KS, teacher's aide and small outdoor adventure business
Pat Dreese: Decatur, IL, Researcher for Stanley, Tate & Lyle
Carol Craft: Goessel, KS, teacher

1977
John Craft: Hillsboro, KS, small-scale design & manufacture of wind & solar electric equip.
Cindy Thompson: Salina, KS, homemaker
Bill Craig: Austin, TX, microprocessor business
Kerry Kramer: Pueblo, CO GS anthropology, Colorado Univ. Denver, to finish 12/92.
Michael Weiss: Roswell, GA, Application Engineer for Control Systems manufacturer

1976
Russell Brehm: Hope, KS, farmer
Eric Herminghausen: W. Burke, VT, carpenter & groundskeeper
Sue (Leikam) Moore: Phoenix, AZ, owner/operator of Arcadia Kumon Math Center and Succinct Ink
Kyle Mansfield: Minneapolis, MN, law firm
Nancy Vogelsberg-Busch: Home, KS, farmer



1984 Interns' summer reunion at Tony's in Virginia. Tony Martin, Kirk Riley, Ann Zimmerman, Dana Price, Janine Calsbeek. Not in photo, Lois Braun.



New Roots for Agriculture

Thinking Like an Ecosystem

Ted Schuur

I recently gained a novel perspective of the Kansas landscape when a friend took me flying in his ultralight aircraft, a machine looking something like a hybrid between an aluminum lawn chair and a riding lawnmower. I tucked myself into a brilliant red, one piece snowmobile suit, donned a blue motorcycle helmet, and buckled myself in beside my friend on a wide black seat. We rumbled down the sandy section road, the craft accelerating to critical speed until we rose into the chilly morning air. The earth dropped away rapidly, taking the crops, the trees, the fields, the section road and everything familiar with it. The curved horizon of the Earth rolled out beneath me blanketed with a thick blue gauze of moisture, the dew of the early morning now rising as a breath exhaled by the earth. Beneath me I saw a vastly different picture of the Kansas landscape than I knew. Tracks from giant farm implements appeared as erratic trails of beetles scribbling strange hieroglyphics on the land. The patchwork squares of farm fields interlocked neatly and did a jigsaw dance down the river valley. The individuality of the rectangular farm field began to soften and dissolve, replaced by the sinuous flow of the hills that line either side of the Smoky Hill River valley. From this height the interplay between the landscape and the activities of people was glaringly apparent. The marriage between ecology and agriculture, a phrase that motivates our agricultural research at The Land Institute, took on new clarity and meaning: exploring the link between humans and the land was essential from my new perspective.

The marriage of ecology and agriculture will help us unite knowledge in both disciplines to form a coherent picture of a new type of agriculture. Agricultural research has focused primarily on the dynamics of living systems occurring on the farm field, an area that we can define as within the dominion of human manipulation. On the other hand, the study of ecology focuses on the behavior of systems in their natural states, systems that lie traditionally outside human manipulation, outside the farm. To propose a marriage between ecology and agriculture is to suggest that we look again to those elements outside the farm to reexplore their essential connectedness and relevance to our farm activities.

In order for us to reconsider these presently disparate elements, we must first ask ourselves what the uniting force will be that will guide our coexistence with the land. Traditional agricultural research has intensively explored food production at the level of the individual crop plant and at the level of the farm field. Now it is time to step beyond the levels of the organism and the population and consider the level of the ecosystem. The level of the ecosystem has been secondary in our efforts to produce food, but now that we acknowledge that humans have the power to disrupt natural processes at the ecosystem and even the global scale, this level of consideration becomes vital.

Aldo Leopold once perceived that "only the mountain has lived long enough to listen objectively to the howl of the wolf". Likewise, when we consider our need for food within the context of the requirements of a healthy landscape, only the native prairie ecosystem has persisted long enough to have some answers. In order for humans to create an agriculture that can sustain us as long as the prairie has sustained itself, we must imagine agriculture fitting within and working in concert with the prairie ecosystem as a functional whole.

To this end, Land Institute researchers have been studying the prairie from the perspective of agriculture. These studies have led to the idea of perennial polycultures, perennial plants grown in species mixtures for seed production in a

system that mimics the prairie. The work has been described in detail in The Land Report and The Land Institute Research Report. Although this is an exciting vision of a form of sustainable agriculture, the novelty of this idea can, at times, obscure the larger idea of an integrated landscape. In the excitement for perennial polyculture, it is easy to imagine it replacing the old cropping systems on all the highly erodible farmland and assume it will be sustainable. This leads to the fallacy of infinite, or perfect substitutability. The substitution of perennial polycultures for row crop fields does not assure sustainable agriculture, nor does it assure continuation of agribusiness as usual.

The idea of perfect substitutability has pervaded our thought extensively, from the theoretical economists to the agricultural researcher. It assumes that we can change one of the components of a system and that it will have negligible effects on the whole system. While substitutability between variables may be possible to some degree, we sometimes carry the notion too far. For example, synthetic nitrogen fertilizer has replaced legume rotations, a natural way to enrich the soil with nitrogen. Now we find ourselves applying anhydrous ammonia, a form of chemical nitrogen readily available for plant utilization but toxic to soil organisms and a nitrogen contaminant of groundwater. Although this substitution is immediately beneficial to plant growth, over time the substitute degrades the health of the soil.

Perhaps the only way to incorporate ecosystem processes in agriculture is to abandon the basic assumption of perfect substitutability. Instead, we would perceive how each change that we make potentially alters the whole system. This awareness might cause us to deny ourselves practices that bring apparent short term benefits but allow us to look again at the ecology of the natural system for information. With this new assumption in mind, we may have a chance of maintaining the ecosystem level resilience of the prairie in our farm fields.

If we imagine agriculture as a functional component of the total ecosystem, we can see how perennial polyculture might fit into the larger patterns of the landscape. Again we can turn to the prairie to study the patterns of these plants in their

Tonya Haigh and Ted Schuur

natural state. Nature on the whole is very rarely homogeneous. Reflected in the distribution of the plants on the prairie, we see patterns of aggregation. Clumps of the same species nested with other clumps of different species into larger areas of similarly aged plants. To mimic this mosaic means an end to the homogeneous state of the vast monocultures of annuals that currently dominate our crop lands.

Similar to the cropping rotations that are traditionally used in farming, our ecosystem farm might have different patches of fields in different successional states of vegetative cover. Newly tilled soil could be sowed with annual cover crops interplanted or interseeded with perennials that would flourish following the harvest of the annuals. This would give rise to stands of perennials growing in mixtures that could be harvested for seed. Different parts of the farm field could be tilled in different years to give rise to several patches of perennials of different ages, with the oldest patches of the perennials plowed under yearly to begin the pattern anew.

Finally, to further break down the barriers between the farm and nature, we have to consider the vital importance of wild areas of native plants within the boundaries of the farm. If we are going to rely on capturing the ecosystem level processes on our reconstructed farm, than we cannot ignore the need to have wild, untilled land within our boundaries. We would still be affecting this land, but minimally. We could manage domesticated grazers as an integral part of our farm just as the bison were an integral part of the native prairie. On the ecosystem farm, fields of annuals could blend into the larger fields of perennial grasses forming a seamless continuum with the native prairie. It is perhaps only by imagining the native prairie ecosystem as a part of the whole farm, and the farm as a part of the native prairie, that we can marry ecology and agriculture.

The Relationship Between Organic and Sustainable Agriculture: Coming to Terms

Dana Jackson

"Too many in the farm community view sustainable agriculture as a threat—some kind of conspiracy to turn everyone into organic farmers. And too many in the non-farm sector confuse 'sustainable' and 'organic.' The terms are not interchangeable."
Ralph Grossi in "Letter from the President," *American Farmland*, Summer 1992.

Grossi is right. Sometimes sustainable agriculture is organic, and sometimes organic agriculture is sustainable, but the terms organic and sustainable are not interchangeable. The rest of Grossi's editorial is a concerted effort to disassociate sustainable agriculture from organic agriculture, to remove the taint of organic methods from sustainable agriculture. Perhaps he wants to reassure farmers contemplating a transition to lower input practices or agricultural scientists beginning to consider research on alternative methods that they don't have to be extremists. But this is an artificial separation and unnecessary. Organic farming and sustainable agriculture are inextricably linked.

No one is more tired of discussing the meaning of sustainable agriculture than I; yet, here I go again. Those at The Land Institute who began using the term in the late 70s and early 80s, before the Low Input Sustainable Agriculture (LISA) program in the 1985 farm bill, were conscientiously thinking about the longevity, the endurability, of agricultural systems and asking hard questions. How long can farmers keep farming the way they do now? Will conventional practices destroy the long term ability of the land to produce food? The underpinnings for these large questions were more specific concerns. What will happen to the food system when our nonrenewable oil resources became scarce and expensive? How long can we continue to dump chemicals onto the land before the groundwater will be unusable for livestock and irrigation as well as human drinking water? What kind of soil quality will we have after a century of anhydrous ammonia, intensive herbicide use, and compaction by heavy machinery? For the sake of production efficiency, can we continue to sacrifice farmers and rural communities?

Jon Piper, Land Institute ecologist and co-author with former Land Institute ecologist Judy Soule of *Farming in Nature's Image*, speaks of sustainable agriculture as "informed by the ecosystem perspective." It must address three questions: (1) What is the sustainable water supply? (2) How can we farm without depletion of critical soil nutrients? (3) How will our fields manage pests and weeds? And a Land Institute principle reminds us that ultimately, a sustainable agriculture must be part of a sustainable culture.

The word "sustainable," in its current, popular use, does not mean the same as The Land's use of it. The basic idea of an endurable agriculture is perhaps the same, but The Land Institute understands it in a much longer time frame than many other sustainable agriculture advocates. Linking sustainability with the word "Low-input" in the 1985 farm bill made it more contemporary and changed the focus from ecology to economics. Now it means that those who cut back on off-farm, purchased inputs, but still use them, are considered to be practicing sustainable agriclture. In this context, sustainable agriculture is not organic agriculture.

Similarly, while some practices of organic farming are considered sustainable, organic farmers sometimes use unsustainable practices. For example, an organic farmer who relies on fossil fuel to pump irrigation water from an ancient aquifer that is being depleted by withdrawals for irrigation (like the Ogallala), is not practicing sustainable agriculture from The Land's perspective.

There isn't much use in insisting on purity in the use of "sustainable." Once a word is loose in the culture, its change and evolution are inevitable. The common usage of a word defines its meaning, and the common usage now is different from The Land Institute's. However, in our research, sustainability will always be within a much longer time frame.

The definition of "organic" poses many problems too. Grossi defines organic farming in his editorial as supported by market demand and "operating without the use of certain tools ofproduction, specifically synthetic chemicals." Farmers practicing sustainable agriculture (low-input), Grossi claims, "do not necessarily deny themselves these tools."

My first introduction to organic gardening and farming was through books and magazines published by the Rodale Publishing Company. My first acquaintance with organic farmers was through the late John Vogelsberg and the Kansas Organic Producers in the mid 1970s. They farmed the way they did because it made sense to them, not because there was market demand for their organic grain hogs and

beef cattle (there wasn't). I learned to garden in the early 70s by building up a healthy soil through the addition of organic matter: green manures, animal manures, compost and rotting mulch. I learned to control weed and insect pests by intercropping, mulching, and interrupting life cycles of pests. The organic farmers I knew also focused on building a healthy soil by rotating corn and soybeans with small grains and legumes and spreading livestock manure on their fields. They controlled weed and insect pests through the rotations, cultivation, careful timing of operations, and introduction of insect predators. Organic gardening and farming friends described their methods in terms of the tools of production they used, not in terms of tools they denied themselves.

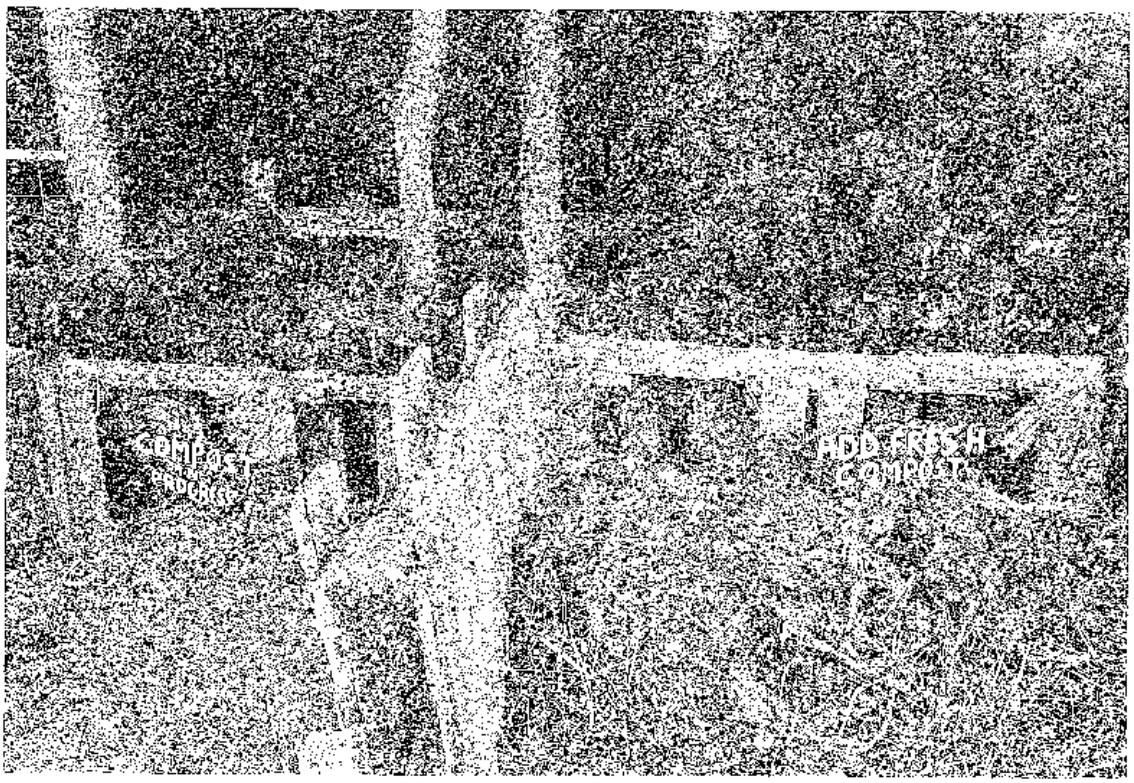
In creating standards under the new Organic Certification law, the emphasis does seem to be on lists of inputs that are or are not acceptable in order to get premium prices for the organic label. But premier certification agencies like the California Certified Organic Farmers also stress the importance of building soil and conserving it.

Further along in the *American Farmland* article, Grossi describes a sustainable farming system as one motivated by a desire to "balance economic, environmental and social objectives." He implies that this is in contrast to organic farming. But surely organic farmers have the same objectives! The key word here is "balance," and the implication is that environmental objectives of organic farmers (who use no synthetic chemicals) are so strong as to be unbalanced in relationship to economic and social objectives. Chemical company and Farm Bureau lobbyists have always used this argument to make organic farmers and environmentalists appear as extremists. It is uncomfortable to have it coming from a proponent of sustainable agriculture.

The effort to define organic farming out of sustainable agriculture ignores the fact that the roots of the current sustainable agriculture movement are clearly in organic agriculture. Environmental and economic advantages of organic farming were recognized in the 1980 USDA study chaired by Garth Youngberg (now executive director of the Institute for Alternative Agriculture). The *Report and Recommendations on Organic Farming* proposed:

> ...research and educational programs should be developed and implemented to address the needs and problems of organic farmers and to enhance the success of conventional farmers who may want to shift toward organic farming, adopt some organic methods, or reduce their dependency on agricultural chemicals.

A direct consequence of the study was the introduction of The Organic Farming Act by Representative Weaver (D-OR) in 1981. Senator Patrick Leahy (D-VT) introduced a similar bill with a differ-



Compost: good organic garden soil in the making.

ent name in the Senate, but neither bill was passed. However, hearings held in connection with these bills kept the recommendations of Youngberg's report alive. They surfaced in the Agricultural Productivity Act passed as part of the 1985 Food Security Act. Congress did not appropriate funds for it until fiscal year 1988, when it created the Low Input Sustainable Agriculture (LISA) Program. The American Farmland Trust worked hand-in-hand with the leading organic farming proponents in the country, especially the Rodale Research Institute in Emmaus Pennsylvania, and Garth Youngberg's Institute for Alternative Agriculture, to secure funding for the LISA program in the Organic Farming Act, renamed the Agricultural Productivity Act.

The basic principles of sustainable agriculture are organic farming principles, and we should not try to cover up that fact. We need to make organic farming practices sustainable and sustainable (in the popular sense) practices more organic. Both should set their standards high enough that their methods move us toward agricultural systems that truly can endure without destroying the resource base of soil, water, farmers and rural communities. However, it is important to avoid being purists, to keep building bridges and help conventional farmers make the transition to more ecological farming systems. But we should not burn the bridges after they are across.

The Challenge of National Organic Standards

Tonya Haigh

Buying organic produce from farmers' markets, grocery store chains, and local food coops has often been an act of blind faith for the consumer. Because the label "organic" can add value to a product, it has sometimes been used dishonestly. In addition, because of the many private non-profit certifying agencies and a growing number of states setting their own certification legislation, there are no national uniform standards for growing, processing, and storing food.

In 1989 Senator Patrick Leahy (D-Vermont) set out to solve these problems when he introduced organic certification legislation. Many farmers' associations, certifying agencies, citizen action and environmental groups, and many state departments of agriculture considered it to be a landmark bill and began working together to influence the legislative process. "This is the first thing to ever cross the USDA desks that goes all the way from production to marketing." commented Margaret Clark, National Organic Standards Board member.

In addition to the establishment of standards, the Leahy Bill included other purposes: to provide consumers with reliable information, to assist growers and emerging markets, to change the policies that currently discourage the use of organic and sustainable practices, and to preserve the integrity of organic programs implemented by states while encouraging adoption by other states. Therefore, when the Organic Foods Production Act of 1990 passed through the U.S. Congress as part of the 1990 Farm Bill, the skies looked clear and sunny for the future of organic agriculture in this country. However, organic growers have since seen that the process is going to be slow and full of pitfalls.

The Organic Foods Production Act requires the United States Department of Agriculture (USDA) to establish organic certification guidelines and to develop a certification program for producers and handlers of organically grown agricultural products. All organic producers and handlers must be certified by a USDA accredited state or private certifier. The act prohibits certain synthetic and toxic natural substances to be used in production, processing and handling of organic agricultural products. It enables states to set standards that are more restrictive than those of the Federal government without extending to them the right to discriminate against products that meet Federal standards.

The act also creates a National Organic Standard Board (NOSB) to advise the Secretary of Agriculture on the standards and requirements of the program. These include standards for synthetic and natural substances found in fertilizers and pesticides. The board will propose a list of approved synthetic substances and a list of prohibited natural substances to the Secretary of Agriculture.

Secretary of Agriculture Edward Madigan named fifteen members chosen from 112 candidates to the National Organic Standards Board in late January, 1992. Five of the members were among those recommended by the Organic Industry, four are farmers and two are women. The Board met for the first time in March, 1992. At that time they discussed how public input would be handled and selected officers and assignments to committees. The committees (Livestock Standards, Crop Standards, Materials, Manufacturing and processing, Accreditation, and International Issues) began meeting and working soon after. Since that time, hearings for public input have been held in Maryland, California, and Maine. The next full board meeting is scheduled for January 17 - 20, 1993, in Asilomar, California.

While the Organic Foods Production Act of

1990 required the establishment of advisory boards and regulations, it did not attend directly to how the program would be funded. The Organic Foods Production Association of North America (OFPANA), prime coordinator of the organic foods trade, recommended a budget of $750,000 for the first year of the USDA's organic program (fiscal year 1992), but only a $120,000 appropriation was approved by Congress. In order to move forward, the organic trade was forced to bear much of the predicted costs through contributions and volunteer time. Still, all of the appropriated money was spent, and USDA and OFPANA spokespersons hoped that fiscal year 1993 would bring a larger budget to work within.

This year the budget was cut to $15,000. This is the total amount of money NOSB has to design the program and implement it in 1993. According to Katherine DiMatteo of OFPANA, this means a delay of at least six months in the start-up time.

> "Consumers and the organic industry have expected that the organic program would be implemented according to the date mandated in the Act, October 1, 1993. Any delay will erode consumer confidence in the organic label and seriously effect the continued growth of the organic industry."

The USDA expects the program to be ready in 1993 in spite of time and money constraints. Michael Sligh, NOSB board chairman, recently explained to the Biotechnology Working Group, " The USDA is pressuring us to put up wet hay."

Funding seems to have been subverted by language in the legislation which states that the organic certification program would be self-funding through user fees. However, start-up money is necessary to establish the program. In a meeting with USDA officials, OFPANA Legislative Council stressed that fees for participation in the organic program cannot be collected until the regulations are complete.

Funding is definitely an issue for many organic growers across the country. An informal opinion poll done by OFPANA and published in their newsletter, OFPANA Reports (Sept. 1992), revealed many other concerns with the legislation that organic farmers would like to see more specifically addressed. Although many pressed for this legislation to protect themselves with national standards, almost all express uneasiness at the idea of organic marketing becoming federally regulated. They question if the law really intends to protect growers, or to just help the retailer. They also are wary of the amount of power given to the Secretary of Agriculture, believing that there may be potential for making the movement vulnerable to that person's personal sympathies. Many farmers were also concerned about the price of certification, which they feel is already too expensive and will probably be driven much higher as a result of government bureaucracy.

The latest challenge to the Organic Industry has been a legal interpretation of the Organic Foods Production Act which would make private certification programs obsolete. Although one of the major revisions to the bill throughout the legislative process was to include private certification programs, unclear language has left this up to interpretation. Miscommunication such as this is leaving increasing numbers of organic growers and certifiers skeptical of the process and program.

To some of those in the organic movement who have struggled to farm organically and make a living, this national legislation is simply another mountain to climb. Its potential is either to open up possibility and reward in their work, or to subvert and mainstream the movement built not on value-added prices, but on concern and love. However, because the program seems very much in organic growers' hands, a tool as much as any pitchfork or shovel, organic standards legislation in this country can still be shaped and owned by the people it affects.

Information for this article came from 1991-92 issues of Organic Farmer and newsletters of OFPANA and the Calif. Certified Organic Farmers.

K. O. P. Becomes Marketing Cooperative

At the 18th annual meeting of the Kansas Organic Producers (KOP) on December 5, 1992, members voted unanimously to revise their constitution and by-laws and become a marketing cooperative.

Under the new structure, the Kansas Organic Producers Association (KOP) grower members will legally be able to set target prices and collectively try to reach those prices. As more growers become certified and as the organic market moves towards wanting certified products, the KOP Association will be prepared to assist Kansas organic farmers.

Most Kansas farmers are certified by the Organic Crop Improvement Association (OCIA) or Farm Verified Organic (FVO) and market grains, alfalfa seed and livestock. Growers will be urged to report regularly to the KOP about certified products they have stored, what they expect to harvest, and what they plan to produce the following year. This information will enable the Marketing Committee to organize marketable units. Volunteers initially will do market research and coordination, but KOP hopes eventually to hire a marketing coordinator.

A Sense of Place

Introduction by Dana Jackson

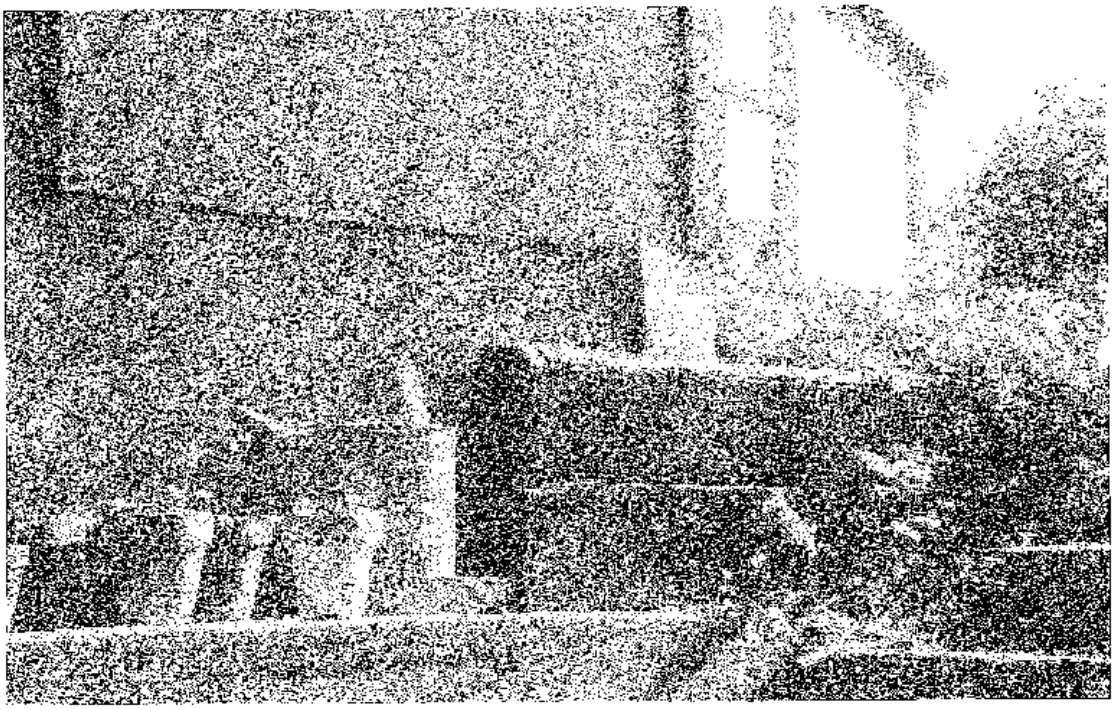
Because I am about to leave The Land, where I have lived for 18 years, I am very conscious of the deep connections between sense of place and sense of self. I wonder if I can ever have a sense of place somewhere else, if I will ever feel like a whole person away from here? The garden defines me as I have defined it. The office where I have worked for so many years, the classroom library, and the path I have walked thousands of times to the house describe me. Will I ever become attached to a different piece of earth that identifies me differently?

Much has been written about a "sense of place." In discussions within the sustainable agriculture network about community and rural life, people often refer to a "sense of place" as if everyone knows what it is and all the good people have it. When our leading writers and speakers refer to a "sense of place," their words are piously repeated as part of the liturgy of sustainability. But "sense of place" is a broad concept; like "sustainable agriculture," it has been defined and applied differently to suit the particular purposes of speakers and writers.

Perhaps we could come to some common understanding of what it means by answering the following questions: Can anyone acquire a sense of place? Why does one lose a sense of place? How does a sense of place manifest itself; is it just a feeling, or is it expressed in actions? Is it a romantic notion, or a philosophical basis for behavior? Can one just look out over an area and say, "I feel good here," and be expressing a sense of place? Can one have a sense of place for many places—a sense of places? Does the phrase imply loyalty to place or commitment? Must one live there to experience a sense of place? Is a sense of place a sense of belonging? Can one measure a sense of place on a gradient, with values ranging from "weak" sense of place to "strong," and "stronger"? Can one have a sense of place in the human built environment, or must it always be connected to the natural world? Is a sense of place an awareness or curiosity about one's bioregion or ecosystem? Or one's building, or block, or neighborhood?

Asking the questions is easy. But could we add up all the yes answers and come up with a definition of "sense of place?" Again, the results would depend upon who was giving the answers in what place at what time and they would vary tremendously from one person to another. Maybe all we can do is use the term in a context and explain what it means in that context.

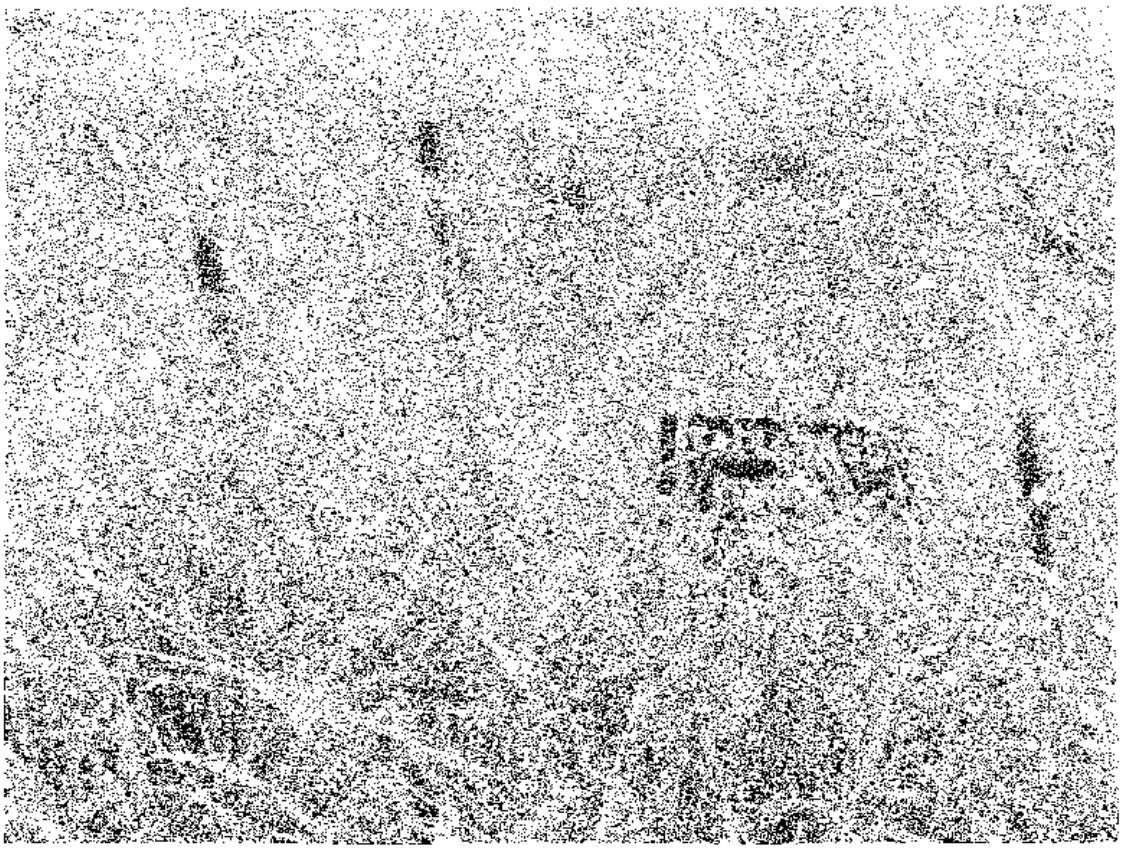
This section does not tackle all the questions; In fact, the last article asks even more. We only present some personal insights in words and images of a sense of place, hoping to understand it better.



Southeast side of classroom building at The Land

Left: machinery and Prairie Festival barn.

Below: Looking north off the Herbary path.



The Concept of Place in Environmental Ethics

Mark Sagoff

Before the American Revolution, Hector St. Jean de Crevecoeur asked, "What then is the American, this new man?" and gave an answer we might give today.[1] We are Americans, he wrote, insofar as we take our customs and culture from this new land or, as Robert Frost said at the inauguration of President Kennedy, we are Americans insofar as we belong to — we are possessed by — the land we possess.[2] Our community is bounded not by race, ancestry, or religion but by the history, natural and cultural, of the land we inhabit. We become Americans by becoming native to this place.

In 1864, Vermont naturalist George Perkins Marsh in his classic study *Man and Nature* cast Nature as the "earthly home" of human beings, thereby including all humanity in a global community.[3] Marsh understood that if there is any response to scarcity, it has to be found in technology. He saw that "the multiplying population and impoverished resources of the globe demand new triumphs of mind over matter."[4] Yet, while technology may supplement nature, it should not separate us from nature. Nature must remain the norm. We shall conceive of the earth, which is the common habitat, as inviolable. One does not act rightly towards one's fellows if one does not know how to act rightly toward the earth."[5]

What is it, then, to "act rightly toward the earth"? The answer depends most of all on what we mean by the "earth." We might mean Nature, for example, or we might mean the environment. If we mean Nature or Creation, then we may think of the earth as the world existing apart from us — the world insofar as it is not affected by human activity.[6] Treating the earth rightly may then involve treating it with reverence and thus not violating its beauty or integrity. We may value Nature, then, not simply because of the good it does us but because it is good in itself.

On the other hand, we may think of the earth as our environment, in other words, as our life-support system and as the material basis for economic activity. In that context, to act rightly toward the earth is to allocate resources prudently and efficiently. The point of environmental policy would not be to protect nature for its own sake but to maximize the long-run benefits nature offers humankind.

Some things are "more to be admired and enjoyed than used,"[7] Thoreau said in 1837 to the graduating class at Harvard, thereby foreshadowing the great debate in environmental ethics between preservationists like John Muir, who wished to protect large tracts of the natural world in an unspoiled condition, from conservationists like Gifford Pinchot, who held that "the first duty of the human race is to control the earth it lives upon."[8] Many of the concepts, metaphors, and norms familiar in environmental controversies derive from a century-long debate between preservationists, who would protect nature for its own sake, and conservationists who would manage resources for human use.[9]

Has there been progress in the debate between preservationists and instrumentalists over the past hundred years? As we look back upon the last century of controversy, we may be impressed less with what divided preservationism and conservationism than with what these two general positions held in common. Both preservationists and conservationists drew a metaphysical and moral distinction between nature and humanity; each wrote an equation with the variables on one side to be solved in terms of constants on the other.

Preservationists believed that all the moral constants lay with nature; instrumentalists found their data in human wants; so they would solve the policy equation differently. Whether people agreed with instrumentalists or with preservationists, however, they saw nature on one side of the balance and human wants on the other, and the underlying metaphor remained that of nature versus humankind[10]

Both preservationism and instrumentalism have changed, however, to meet changing circumstances, which have brought them more closely into agreement. Preservationists have had to contend with the fact that little if any pristine nature remains to be preserved. Preservationists have to answer questions concerning how to manage nature, i.e., questions about the appropriate role or influence of humankind in the natural environments, rather than questions about how to minimize that role in order to keep nature in a supposed "untouched" state.[11]

Instrumentalists, in turn, find that concepts drawn from microeconomics concerning the efficiency of particular projects do not help to answer macroeconomics questions about the "carrying capacity" of environmental systems as a whole and ethical questions about the sustainability and, indeed, desirabil-

Mark Sagoff , Director of the Institute for Philosophy and Public Policy, University of Maryland, presented this paper as testimony before a joint committee of Congress on Religion and the Environment chaired by Senator Albert Gore on May 12, 1992. A longer article, from which this testimony was drawn, will appear in the *Journal of Energy, Natural Resources and Environmental Law* published by the University of Utah College of Law.

ity, of growth aimed primarily at maximizing consumption. Efforts to allocate resources efficiently, however helpful, fail to speak to the urgent need to adjust the aggregate scale of the economy (the sheer amount of throughput of low entropy resources taken from nature and high entropy wastes put back in) to the ecological systems on which it depends. Thus instrumentalists must answer questions not just abut the efficiency of projects but, like preservationists, also about the appropriate role and scale of human activity in the natural world.

I should like to leave you with a concept that mediates between the ideas of Nature and of the environment and captures much of what may be most important in each. This is the concept of place. Commentators tell us that Americans lack a sense of or affection for places: we do not settle anywhere, but move on, always going to somewhere or something new.[12] The mobile home, the chain store, the fast-food stand, and the commercial strip turn placelessness into a way of life.[13] "In this country, at this moment," writes artist Alan Gussow, "we are very conscious of man as a violator of his environment, a destroyer of the earth's lovely places."[14]

Much of what we deplore about the human subversion of Nature — and fear about the destruction of the environment— has to do with the loss of places we keep in shared memory and cherish with instinctive and collective loyalty. It has to do with a loss of diversity and an attendant loss of security — the security one has when one relies upon the characteristic aspects of places and communities one knows well. What may worry us most is the prospect of becoming strangers in our own land, of never quite settling into it, of being no more at home here than anywhere. The prospect that a person of European, African, or Asian descent, no matter for how many generations in this country, can never be native to it—never become a "native American"—must be an unsettling one. It commits us forever to the vagrancy of the frontier, to a footloose and pioneering spirit that strikes a claim and then moves on.
"The maintenance of a livable global environment," William Ruckelshaus wrote in a recent essay, "depends on the sustainable development of the entire human family." It requires that we see the planet as a communal place to share — not as a grab-bag of resources to divide. He noted in this respect that poverty has direct environmental consequences: "If the poor nations attempt to improve their lot by the methods we rich have pioneered, the result will eventually be world ecological damage."[15]

The emerging field of environmental macroeconomics recognizes issues of poverty, intergenerational equity, and third-world development as essential elements of the basic theory. Economists in the 1990s understand that the way income is distributed has everything to do with the way resources are allocated, which is to say, the way they are used; for example, the distribution of income may determine whether a society must deplete resources to satisfy immediate needs or whether it may manage them in sustainable ways. Current macroeconomics theory therefore helps the policy agenda to replace the obsolete efficiency goal with other criteria, such as quality of life, provision of basic needs, and limits on throughput, for societal success.

While other species rely on instinct to develop nature into their habitat, human beings have to depend on culture. The traditional work of culture, indeed, has been to make nature into our habitat or home. It is to create a sense of place about the earth-- as the pictures of the planet taken from space helped to do. The word "culture" derives from colere—to cultivate, to dwell, to care for, and to preserve—and relates primarily, as Hannah Arendt notes:

> ...to the intercourse of man with nature in the sense of cultivating and tending nature until it becomes fit for habitation. As such, it indicates an attitude of loving care and stands in sharp contrast to all efforts to subject nature to the domination of man.[16]

The appropriate cultivation of nature as habitat — which is neither to preserve nature for its own sake or to industrialize it for the sake of maximizing wealth — may be America's next great moral achievement. The attitude of loving care for nature, far more than that of efficient exploitation, expresses and preserves the essential aspect of American culture and, therefore, of our character and identity as a nation. This attitude as Robert Frost wrote in the poem with which this essay began, has as much to do with giving as with getting and spending. The land was not given to us, Frost wrote, but we to the land:

> Such as we were, we gave ourselves outright
> (The deed of gift was many deeds of war)
> To the land vaguely realizing westward,
> But still unstoried, artless, unenhanced,
> Such as she was, such as she would become.[17]

REFERENCES AND NOTES

1. "He is an American who, leaving behind him all his ancient prejudices and manners, received new ones from the new mode of life he has embraced." Hector St. Jean de Crevecoeur (Michel-Guillaume-Jean de Crevecoeur), *Letters from an American Farmer* (Peter Smith, 1968, Gloucester, MA) p. 49.
2. Robert Frost recited "The Gift Outright" at the Inaugural of President Kennedy, Washington, DC, in January 1961. He had intended to read a different poem, but

the sun was in his eyes and the wind blew the paper out of his hands, so he recited "The Gift Outright," which he had in memory. He was 87 years old.

3. George Perkins Marsh, 1864. *Man and Nature*. David Lowenthal, ed. 1965. Harvard Univ. Press, Cambridge, MA., p. 13. Marsh writes: "As we have seen, man has reacted upon organized and inorganic nature, and thereby modified, if not determined, the material structure of his earthly home."
4. Marsh, p. 4.
5. Marsh, p. 3. This imperative is fundamentally religious; "To live in sincere relations with the company of created things and with conscious regard for the support of all men now and yet to come...", p. 14.
6. The best philosophical essay discriminating among the senses of the word "nature" remains J.S. Mill, "Nature," in *Three Essays on Religion* (1874), but see also Raymond Williams, "Ideas of Nature," in *Problems of Materialism and Culture*, pp. 67-85.
7. F. B. Sanborn, ed.,1984. *Familiar Letters of Henry David Thoreau*, Houghton Mifflin, Boston and New York, p. 9. The passage reads: "This curious world we inhabit is more wonderful than convenient; more beautiful than useful; it is more to be admired and enjoyed than used."
   The transcendentalists, Emerson most notably, but also Thoreau, inherited this neoplatonic vision of nature as the expression or emanation of divinity; thus their aesthetic was founded in religious reverence, not in an aesthetic sensibility of the sort Oscar Wilde disparages (see note above). For a convincing argument to this effect, see Perry Miller, "From Edwards to Emerson," in Miller, 1970. *Errand into the Wilderness*.
8. Gifford Pinchot, 1910. *The Fight for Conservation*, Doubleday, New York, p. 45.
9. The humanities may influence environmental policy in part by examining and helping to change the terms of discourse. As Gramsci put this idea: "to change, correct or perfect the concepts of the world that exist in (our) particular age and thus to change the norms of conduct that go along with them; in other words, to change practical society as a whole." Antonio Gramsci, *Selections from the Prison Notebooks*, Quinton Hoare and Geoffrey Nowell Smith eds., 1971. Lawrence and Wishart, London, p. 344.
10. If the environmental struggles of the 1990s were continuous with those of the 1890s, if the central problem today were whether to emphasize intrinsic or instrumental values, whether to adopt a "gospel of preservation" or a "gospel of efficiency," we might have little to add to what artists, writers, philosophers, historians, and others have said on this question. There are good reasons to think, however, that the environmental struggles of the 1990s will not resemble those of the 1890s and to hope that those who contribute to the arts and humanities will not only help society to strike a compromise between preservation and management but, more important, to find other terms in which to cast the debate. The concepts, metaphors, images, and associated norms and attitudes that characterize the traditions of Muir and Pinchot may not be useful in our present circumstances.
    Advocates of preservation may reply with great plausibility that the attitudes and interests that lead us to preserve trees for their own sake are better or "nobler" in some sense than those that lead us to tear them down and plant split levels and condominiums in their place. Nevertheless, when we act on these nobler interests and attitudes, a forest remains an object of our will, just as surely as if we had converted it to paper and chewing gum. The preservation of nature for its own sake represents a high aspiration — but one of many human aspirations nonetheless. Thus, advocates of the efficient use of natural resources may plausibly describe calls for preservation as the pleadings of special interest groups and factor these preferences into the general social calculus on which they believe environmental policy should be based.
11. For an excellent example of how this has been done, see Kai N. Lee, 1989. "The Columbia River Basin: Experimenting with Sustainability," *Environment* 31: 6. pp. 7-11, 30-33.
12. The historian Frederick Jackson Turner predicated the development of the American national character on the existence of the frontier — "an area of free land, its continuous recession, and the advance of American settlement westward..." Frederick Jackson Turner, 1894. *The Frontier in American History*, Govt. Printing Office, Washington, DC, p. 1.
13. Wallace Stegner comments:
    "Ghost towns and dust bowls, like motels are western inventions. All are reflections of transience, and transscience in most of the West has hampered the development of stable, rooted communities and aborted the kind of communal effort that takes in everything from kindergarten to graveyard and involves all kinds of grades and ages of people in a shared past and a promise of continuance."
    Wallace Stegner, 1992. Where the Bluebird Sings to the *Lemonade Springs*. Random House, New York, p. xvi.
14. Alan Gussow, 1972. *A Sense of Place: The Artist and the American Land*. Friends of the Earth, San Francisco, p. 27.
    Henry Miller's indictment is more severe:
    America is full of places. Empty places. And all those places are crowded...Everyone seeking a nice cosy little joint to be with his fellow man...Not ever finding such a place, but pretending that it does exist. If not here then elsewhere.
    Henry Miller, 1947. *Remember to Remember*, New Directions Books, Norfolk, CT, p. xv.
15. William Ruckelshaus, "Toward a Sustainable World,", p. 168.
16. Robert Frost, "The Gift Outright," 11. 12-16.

A Sense of Place and the Ethics of Care

Dana Jackson

Photos by Cynthia Vagnetti

"Kansas Farm Women: Growing out of Tilth," is the name of a multi-media production produced by Cynthia Vagnetti under a grant from the Kansas Committee for the Humanities. Cynthia has presented this show in communities around Kansas to honor farm women and their families. The 160 black and white images show Nancy Vogelsberg-Busch (Marshall County), Marilyn Jones (Marion County), and Lisa French (Reno County) on their farms caring for home, livestock and equipment, moving hay bales, gardening, attending community events with children, etc. Their voices accompany the images, describing their tasks in field and garden, expressing devotion and care for their farms, their families and communities.

> *The seamless quality of my life on the farm is very important to me. Farm work, household chores, parenting and community service intertwine and overlap.* (Lisa)

> *Gardening is just a real big passion... I probably see this particular land as my connection with the people that have lived here before me, the people that will live here later.* (Marilyn)

One idea kept coming to my mind when I saw this program, an aspect of a sense of place that is related to the ethics of sustainability—one's responsibility to care for it. The women in the photographs spend their lives taking care of their places.

Once one has made a place her own—has created, built, begun to occupy or even interact in a place, one has a certain obligation to it. That means upkeep, repair, nurture, beautification. One scrubs the bathtub, fixes a fence gate, plants petunias, prunes hedges, feeds the animals, bakes a pie. This obligation is also expressed in how fields crops are laid out, as in the thoughtfully planned rotating strips of grain and legumes on the French farm. Care involves an active participation in the place, over time—physically, spiritually and socially.

Caring for people who live in that place is as important as caring for the soil, animals, trees, buildings and streets. Relationships in family and community require attentive listening and responding to the needs and concerns of other members. Human relationships must be nurtured and sometimes mended so that a place can be inhabited in peace and enjoyed by all. That means nurturing the sense of self worth, respecting and encouraging the expression of individual gifts and interests, while also supporting common values and goals.

My kids have learned to respect hogs. We rub them (they become more gentle). That's important to my livestock and important for my children that they have that bonding back and forth. (Nancy)

Above: Marilyn Jones

Below: Lisa French

Whether place is home, neighborhood, farm or community, the sense of place is developed and displayed through care.

In the farm family, indoors and outdoors blend; the house for humans and houses for animals both require attention as do the floors and fields. Yet, as Susan Sweitzer Oberst points out in a *Kentucky New* Farm Gazetter article ," Teachers and Learners: *Reflections on Women and Farming,*" the tasks do not receive equal status.

> ...I decided in between milking Bertha and washing off Annie's udder, that actually vacuuming the house is as valuable, as rewarding and as important as scraping manure off the cow lot with the tractor. Making cheese rates close to using the team of horses.
>
> The analogies could go on. Historically the divisions have not always been the same, but women's work has been devalued, only taking on social significance as that work becomes traditionally men's work.

As long as women, men and children are all engaged in care for the parts without ranking those who work, labor can be divided and shared in various ways. The rewards of care go to all, including a sense of pride in the order and continuity, the satisfaction in striving for what E. F. Schumacher called "health, beauty and permanence."

Care for people blends with care for things. Mending clothes, fixing faucets and preparing healthy food from the garden are tasks we take care of because we care for other people.

Beyond the household or farm and into the neighborhood and community, we extend care if we belong to a place. The customs of taking food to bereaved or sick people, volunteering for church or school projects, and helping Habitat for Humanity construct a house are all aspects of care. Teaching children the customs of a place and respect for those who created them is teaching them a sense of place. How we care for traditions, as well as material things, left to us by former generations informs children about place.

For something within human culture to endure, to be sustainable, it must be maintained, whether a soil, a building, or a relationship. For a sense of place to exist and to endure, care must be expressed for that place, though an investment of time, labor and love.

Puzzling about Person and Place

From Suprabha Seshan's Journal: December 1990, Dasilnaickanoor Village, Tamil Nadu, India.

The Nayakar tribals are proud of their ancestry and it shows in their manner and bearing. Dark, like chocolate and ebony mixed, they have lean strong bodies proportioned by generations of hard work and a fat free diet. I saw the most beautiful man the other day—every muscle in his gleaming torso was highlighted in turn by his rhythmic digging action, each limb moving with sinuous grace and suppleness. He was completely unselfconscious, it seemed, of his own beauty.

We work with them every morning, play with the children in the afternoons and sing and dance with the whole community in the late evenings. Their songs have a pattern, always in duet form, with a lead singer. High pitched, in semi tones, they follow a key of their own, using very few notes.

So many questions arise in my mind about these people, who, to me, are beautiful. I also wonder if I am creating romantic images of them, something untrue or inaccurate. There is no denying the enchantment, no denying the fact that I perceive them to be a rare breed of human culture, different from what I am accustomed to. There seems so little trace of vice, or greed or indulgence and to find a living culture with no overt expression of these fairly common human attributes, makes them very attractive. While the skeptic in me warns of the possibility of spinning yarns, I also admit to being under some kind of a spell...

The large kummi-attams or communal dances of the previous evenings gave no clue to the great complexity of rhythm, movement and form that the Nayakar dances can take; the religious ones we witnessed last night were in another league altogether, and I can only visualize in my mind's eye the festivals and gatherings in which these lithe, graceful men transport their audience to another realm entirely. For that's what I felt on that shadowy, dark night, squatting on the glittering sands against a temple wall. I was neither here nor there—my past and my strong sense of identity seemed to fall away under the mesmeric performance, under the spell of drum-beats and the high, full-throated quavering semi tones and the shuffling feet.

Where was I? Who was I? What was I doing there with a German volunteer on one side and a bewitching Nayakar woman on the other; with a recent past of walking in the Swiss Alps and bird

watching in the Orkneys—and my home just a night's journey away? The incongruity of it all hits me now, with a force I find difficult to comprehend. Of all the emotions that could have surfaced then, it was the sense of being lost that I felt. No fixed point, nothing to hold on to. No place, no person, no idea.

The other day, at the work site that same feeling of being "lost "was very powerful. I was translating a very complicated discussion between the European volunteers and Rangaswamy Nayakar, an extremely perceptive elder of the village. Both sides were intense in their comments and queries, and I was caught in the drama between the two, realizing that I had a part to play in the making of the drama. How could I convey what I understood of the Nayakar elder, for his questions seemed enormous? And how in turn, could I convey to him, the responses from Heather, Kaija and Franco, who had come to India to learn?

"Why have they come, these men and women with soft hands, to work in this village?"

"To share in your lives, to see the world, to understand..."

"Why have they come, these men and women with skin that resents our sun? Why do they wish to work with us?"

"To learn how others live, so that we don't become complacent with our own ways of life."

"Ask them, ma, why they have come, truly. I am familiar with what they say, but that does not tell me their real reason for moving so far from their homes, from their families and children. Why do they want to work in this brain-shattering heat?"

"We come in a spirit of peace and friendship, so that there may be a greater harmony in this violent and embittered world."

"Is their land so full of goodness and so free of trouble that they travel to help others so far away? Do they have no suffering in their countries, no struggle like we have? We could never travel so far. Why do they come?"

"Our countries are not full of goodness; please do not think so. We have suffering of another kind, of the mind and spirit. We have terrible problems of violence and greed and isolation, though we may know little physical hardship."

"We are happy that they are here and working with us, but we still do not understand what makes a man or a woman travel such distance, to do work that they are totally unused to, to live a life that must be so alien, to leave behind their people. Perhaps they are of a restless kind, and maybe they move like our people did when they traveled a great distance several generations ago."

What on earth was going on? Such different world views, such a divide in their understandings. There was plenty of goodwill and affection and curiosity on both parts, a tremendous capacity to listen to the other, to perceive that there was indeed another world view, that theirs was not the only way to live. Both had myths about the other, some idealistic vision that life was better for the other. I could see Kaija wondering if sitting eight hours a day in an air-conditioned office were better, in quality terms, than a life of toil on poor land. I could hear Ranga Nayakar saying, "They do not know the meaning of suffering." What indeed was going on?

Where was I in all this? Could I see the whole? Or was I caught in myths of my own making? Was I "lost" because I sat right on the fence of that great cultural, intellectual divide? My brain could comprehend with ease the movement in Western thought, the European's pattern of logic and reason, their desire to travel and see other lands. And somewhere else, call it my heart or gut, I could understand equally well— through a conditioning of culture, some customs, history, language and appearance that I perhaps did share with the Nayakars—the movement in Rangaswamy Nayakar.

Or, perhaps I understand neither. That, if it is so, I must accept.

At present however, there seems to be a connectedness to both. I think consciously like one group and follow similar rules of inference, enquiry and rationale. I look like the other—blackened limbs, chapped palms and soles, more bone than flesh—and I speak their tongue. With both there is a meeting ground, some common points of identity. With both there are occasions that highlight my own distance from them, an unnerving feeling, difficult to articulate, but profoundly there.

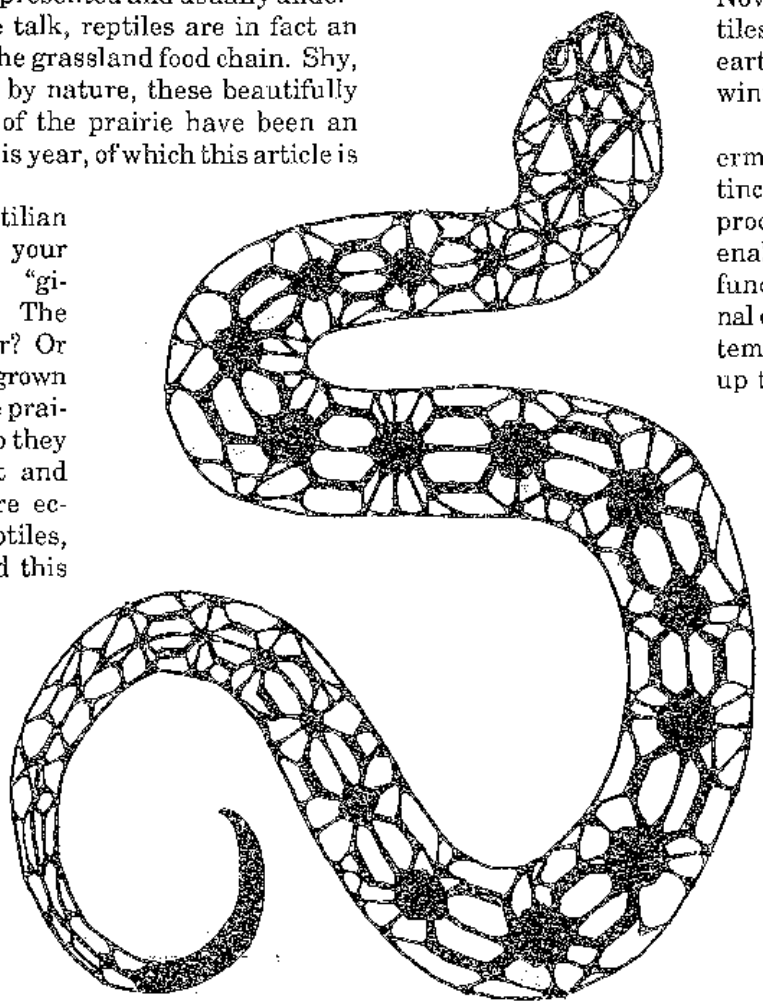
Suprabha Seshan (Supi)

Serpentine Obsessions

Illustrations by
Ted Schuur

Suprabha Seshan

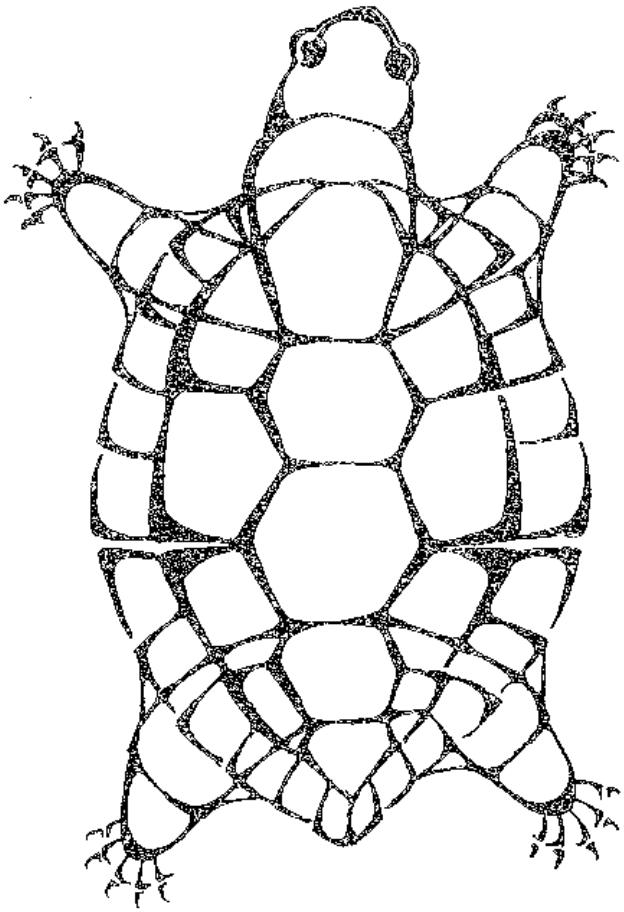
Enter, the Saga of Snakes into the Prairie Paradigm. Enter too, lizards and turtles. Generally ignored till now in the revolutionary rethinking of agriculture, this fascinating group of animals has received unaccustomed attention this year from interns Ted and Supi who have delighted in wild snake chases and skink-hunts within the hallowed precincts of perennial polyculture. Poorly under-represented and usually under-respected in most prairie talk, reptiles are in fact an important component of the grassland food chain. Shy, discreet and unobtrusive by nature, these beautifully constructed macrofauna of the prairie have been an object of informal study this year, of which this article is an informal outcome.



Consider a few reptilian characteristics. Choose your favorite species. The "ginormous" Gila monster? The smooth sinuous sidewinder? Or maybe our very own homegrown box turtle that haunts the prairie bottomlands? What do they have in common? First and most significant, they are ectotherms (as are all reptiles, amphibians and fish) and this means that their body temperatures are dependent on the surrounding temperatures of whatever medium they happen to be in—air, soil or water. (Hence the misleading title "cold blooded"). Birds and mammals, on the other hand, are endotherms and can generate their own body heat through metabolic activity. This allows them to survive in conditions where there is little heat. That reptiles are ectothermic is common knowledge, taught in all biology classes, but worth emphasizing as it determines their levels of activity (and thus also of their pursuers!). This is because the main source of energy for their metabolic processes is the sun so they are generally unable to live in cold regions. Those that do live in temperate climates, (like our Kansas species) thus hibernate during the winter, keeping their metabolism to an absolute minimum. This is why one sees reptiles only during the warmer parts of the year in this region; this year at The Land Institute we saw our first snake on the 15th of April. In the spring one commonly sees snakes or skinks on flat rocks or stone walls or even bare ground absorbing the radiating heat after cool "bloodchillin" nights. And, by now, late October, early November, the last of the reptiles retreat into dens or under earth to sleep away the cold winter months.

Endothermy and ectothermy are associated with distinctly different physiological processes. While the former enables the development and functioning of complex internal organs that need stable body temperatures, it also requires up to 80% of the calories consumed through food in maintaining that. So, mammals need to have a frequent and consistent food supply. Ectotherms, in contrast, eat relatively infrequently, in some cases the animal does not consume food more than a dozen times a year. The lower metabolic process does not require much food (in comparison to endotherms) and also takes much longer. Anyone who keeps reptiles knows that they take a long time to ingest and digest their meals. In times of scarce food supplies, they are able to modify their behavior, such as to not reproduce, to accommodate these fluxes. (Here is a lesson for Land Institute scientists: maybe our design of a sustainable future should include not only perennial polycultures that require little tilling but also the biological engineering of humans that eat very little and take very long to eat very little!)

Second, all reptiles have scales or shells, an important evolutionary development that allowed rep-



tilian prototypes to leave the water environment and live on land. Unlike fish or amphibians which are wholly or partially dependent on aqueous surroundings, reptiles can breed and live outside of water. Historically, this was an important stage in the colonization of land and was such a successful adaptation that reptiles ruled the planet for several hundred million years, until dramatic environmental changes proved the early mammals to be better adapted. Their watertight scales and shells, also enabled them to colonize arid areas and deserts where their success as a group is still easily seen.

I spent some time one afternoon this summer peering at the marvelous structure of the scales on a bullsnake (an unfortunately dead bullsnake) and I was amazed at the way they fit together and at the detail of design on each individual scale. In trying to key out some species (using Joseph T. Collins' excellent Amphibians and Reptiles of Kansas), I learnt that not only are the number, color and configuration of scales important for distinguishing between species, but the presence or absence of keels on each scale are also. Thus bullsnakes, rat snakes and gartersnakes have keeled dorsal scales, while king snakes, racers and coachwhips do not. One rarely needs to know such detail when identifying snakes, and certainly in the case of rattlers, one looks for the presence of a rattle and not keeled dorsal scales! Lizard scales are complex and take all kinds of forms: polished, iridescent stained glasswork (skinks), intricate beadwork (collared lizards), or jagged pointed protrusions (horned lizards). These different types of scale actually have a function in territorial display or as defense mechanisms. The third group of reptiles found in Kansas are the turtles whose scales are enlarged into horny plates, reinforced from below by bone, that enclose the soft body parts into which the animal can retreat in times of danger.

A fascinating aspect of many reptiles, particularly snakes and lizards is the periodic sloughing off of dead skin or scales, which are made from a keratinous substance. Before the old set gets cast off, a new one starts growing underneath, bright and shiny and soft. Cast-off reptile skins retain an amazing amount of detail, so it is possible to identify the species from the sloughed off sets. I once kept a seven foot long cobra skin, complete with hood markings for several months before it disintegrated from overhandling. On The Land's native prairie, snake skins-- ethereal and delicate, transparent and papery, caught against a rock or the bark of a tree fluttering in the Kansas wind-- are more commonly seen than snakes.

Not long ago I had the privilege of watching a garter snake stalk its prey, a small frog. The utter deliberation and complete control, the minimal amount of movement, the wide open black eyes, the poise composed an art form to appreciate. This particular snake was not successful in its stalking,

Reptile Sightings

There are 63 species of reptiles to be found in Kansas, of which we have seen around 15-20 this year. There was a period during the summer when some Land staff person or intern seemed to be spotting snakes almost everyday, resulting of course in considerable excitement. I tried vaguely to keep track of who had seen what and where. Fewer sightings of lizards and turtles were reported. Here is a list of what we have seen: Ornate box turtle (*Terrapene o. ornata*), Western painted turtle (*Chrysemys scripta elegans*), Common snapping turtle (*Chelydra s. serpentina*), softshell turtle (*Trionyx sp.*), Eastern fence lizard (*Sceloporus undulatus*), Eastern collared lizard (*Crotaphytus c. collaris*), Prairie skink (*Eumeces septentrionalis*), Great Plain skink (*Eumeces obsoletus*), Prairie lined racerunner (*Cnemidophorus sexlineatis viridus*), Prairie ringneck snake (*Diadophis punctatus arnyi*), Eastern Yellowbelly Racer (*Coluber constrictor flaviventris*), Ratsnake (*Elaphe sp.*), Bullsnake (*Pituophis melanoleucus sayi*), Kingsnake (*Lampropeltis sp.*), Garter snake (*Thamnophis sp*), Lined snake (*Tropidoclonion lineatum*).

not through any fault of its own, but of its stalker instead, a clumsy human who happened just then to step on a twig! One crackle and the garter snake vanished through the grass, still hungry but wary.

I was delighted to see a small table on the classroom building patio with a display about prairie wildlife at this year's Prairie Festival. People were allowed to pick up and handle a kingsnake kept in a glass cage. Though the display was for children, many adults were also curious about it. Coming from a culture where snakes are either whipped to death in fearful frenzy or worshiped as an omnipotent deity, I was encouraged to see this happy medium of excitement mixed with cautious wonder and an eagerness to learn about a traditionally feared animal. Classroom education goes a long way in removing prejudice but even more important is experiencing these silent, shy creatures. Reptiles can do with much more appreciation and I am glad that we were able to do a lot of it this year at The Land Institute.

Many thanks to Dwight Platt, Professor of Biology at Bethel College, Newton, Kansas , who spent an afternoon sharing reptilian delights with us.

A Haunting November Encounter

Jim French

I had cautiously driven the ten miles to South Hutchinson for some prescriptions that my parents needed filled and for some calf medication. An ice storm on the previous day, Halloween, had deposited several inches of packed sleet on the county. This made the roads slick and driving a foolhardy venture. I remember walking up to the Ashcraft Pharmacy and stopping, thinking I had heard something, but uncertain what it was. Then it came again—a distant familiar cry, what the Peterson Field Guide to Eastern Birds describes as a "shrill rolling garoo-a-a-a-." A Sandhill Crane called somewhere hundreds of feet above me. I could never spot what I imagined was a small group circling in the bright sky that afternoon. Nevertheless, like others I had observed, I assumed that their wings and necks were outstretched, motionless, as they circled and floated like silver splinters in the sun.

But why were they there, now, after a customary bout of unusual Kansas weather? There, in that biting wind that made fifteen degrees feel like zero, were birds that usually marked the coming of fall and the first freeze in early October. But Reno County had an unusually dry and hot October, prolonging a persistent, if locally fluctuating, drought. I imagine the harvested milo fields with stray heads of grain, the open water of Cheney Lake as well as the warm temperatures encouraged the cranes to slow their migration to south Texas and Mexico. Whatever the reason, like me, they probably did not expect the gusty winds of late October that brought freezing precipitation and a frigid Canadian air mass.

That day after Halloween as I stood in the intense winter cold, surrounded by concrete, glass, asphalt and exhaust fumes, my body froze at the barely audible squawk of a huge wetlands bird. For a moment, I had the sense of suddenly waking in an alien world that had come into being while I slept. The experience was "haunting"—complete with a tightening of the diaphragm, and a tingling along the

Jim French

nape of the neck. Webster associates the verb, "haunt," with the presence of something that lingers or continues to inhabit a place. A ghost continues to dwell in a site beyond the normal restrictions of time, mortality and expectations of the correct residents.

On that November day, I was haunted by a bird co-inhabiting my native household. As a creature of nature like the crane, my body responded before my brain. And in that moment what became strange and alien turned out not to be the bird, or the ice, or the wind, but the concrete, glass and metal. That freak October storm, like the spring tornadoes of the past two years, revealed humans' fragile power to live impervious to natural forces and creatures. The cry of that bird planted a homestead claim in the same territory it has inhabited for thousands of years—even in a past era when humans moved on foot, clothed in skins, following the vast herds of bison as they moved south across the wide Arkansas River toward the Ninnescah.

And so it is that in a landscape manipulated and reformed according to our fancy, we are haunted by companions that we seldom notice who have lived in this space since long before the arrival of humans.

For example, skunks are ancient dwellers of this continent. They have dug for roots, grubs and insects for tens of thousands of years. No amount of human encroachment has modified that. This year saw an abundant proliferation of crickets in our area, particularly in my parents' basement across the driveway from us. According to the dictates of appetite and taste, one young skunk managed to follow the aroma of crickets through a crack in the foundation and end up in my parents house. After penetrating the wall, the skunk fell into the basement, and while trying to discover a way out, eventually ended up in a spare bedroom on the second floor.

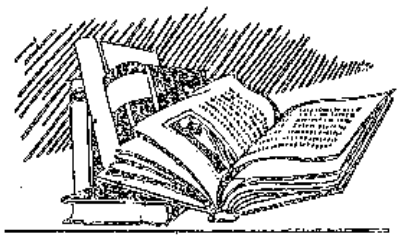
There was no mistaking the sort of presence that haunted the hallways of the house when this ghost moved in that night. To avoid a tragic encounter between the house cat and the skunk, Dad closed the intruder in the bedroom, hoping he would settle in without much alarm. The next morning, Dad and I cracked the door and peered in. Nothing. We opened the door wider. Still no sign of skunk. Then we stepped in and took a look around. Finally, under a chest of drawers, we spied black fur. The nocturnal skunk slept soundly on a stomach full of crickets. Dad carefully removed clothes that my mom had placed on the bed—clothes laid out for trip to England that she was planning. We closed the door again.

However, we were at a loss at what to do. I have a live trap that I use for raccoons around the chicken house. But how would one deal with a skunk in a live trap in someone's bedroom? That option was out. We also dismissed the idea of shooting the animal. Next, the exterminator that Mom called laughed. Finally, we decided to bait the animal onto the porch roof outside of the bedroom window. I got on the roof and removed the storm window and screen and raised the inside window. Next we placed some slices of cantaloupe and tomato by the edge of the roof where I had leaned a couple of two by twelves that would act as a ramp. Although we never saw the skunk leave, the next morning he was gone. We checked behind all the furniture and even in the springs of the bed and rocking chair. But even though he was gone, the skunk was not forgotten. A faint perfume floated in that old house for weeks.

The skunk, like the crane, is a rightful resident. While the rare intersection of their lives and ours may be haunting, comical, exasperating or tragic, we should not try to alter the fact that we share the same home. Even though the Sandhill Crane is literally not a ghost, many species have entered the realm of the dead by the action of humans. The Sandhill Crane, like his cousin the Whooping Crane, has experienced a great shrinking in the breeding area around the Platte River in Nebraska due to increased irrigation in the Sandhills. Wetland drainage and development in the Great Lakes region has adversely affected the nesting range. So it might not be too remote of a possibility that these magnificent cranes would move into extinction and their calls haunt only our memory. But for now, I hope that we can continue to allow space for these neighbors, for only so long as they live in health and independence do we do the same.

My story of cranes on the prairie for this season drew to a close several days after November first. I was driving by one of my fields of milo stubble when I saw a group of a hundred or more cranes foraging. Bent over, picking for grain, their large rounded bodies resembled a flock of grazing sheep. But with the slight disturbance of my pickup engine, hundreds of red-capped heads craned upward to determine the source of the noise. They did not take off at my passing. I didn't pause long. Maybe they will remember this place and set down again next spring, and the next, and again for hundreds of years to come. Maybe they will continue to haunt this land even if we are no longer present to watch and disturb.

This article first appeared on November 15, 1991 as one of Jim French's regular columns for the *Reno County New Times*, published twice a month in Pretty Prairie, Kansas. Jim and Lisa French earn their living from a diversified grain-livestock farm near Partridge, Kansas, and serve on the board of directors of the Kansas Rural Center.



Books

Life On theDry Line: Working the Land 1902-1944

By Harry Morgan Mason
Fulcrum Publishing, Golden, Colorado, 1992
Hardcover, $19.95, 197 pages

Reviewed by *Anne Fitzgerald*

Just when you were losing hope because you're turning 30 (or, God forbid, 40 or 50) and have not yet published a book, along comes an octogenarian like Harry Morgan Mason to restore your faith in the possibility of being immortalized in print.

In *Life on the Dry Line: Working the Land, 1902-1944*, his first book, Mason offers a rich collection of essays about what it was like to live and farm in rural western Kansas in the days before industrialized agriculture. An 84-year-old with a Ph.D. in experimental psychology, Mason is almost half a century removed from the simple, though difficult, life he portrays in his 197 page memoir, whose title refers to the 100th meridian.

But his recollections are carefully detailed and sharply focused, as if the author had just stepped in from a day of work on a threshing crew or behind a horse-drawn plow. The author's voice is confident but gentle; his humor, measured but effective—in both cases, decidedly Kansan.

In the preface, the author says his now deceased wife, Isabel, inspired the book by suggesting, in response to his complaint about having nothing to do, that he write about what it was like to farm with horses when he was young.

In three chapters organized around his parents' moves from operating a farm to running a garage and, eventually, back to the land, Mason weaves a tapestry of the stuff of rural life when horse-drawn field work and handshake collateral were commonplace.

In precise, often colorful, language, he describes work, play, mealtime, church and social gatherings. Using his parents lives as a vehicle to dip into 19th century Kansas, Mason also describes cattle drives, train rides and the building of a sod house.

He recounts seeing his father cry for the first time, describes girls flirting with thresher crew workers and talks about his father's financial meanderings.

Mason also details his parents' conflicting views of organized religion, and how his father's aversion to it affected him: "Father's brittle attitude toward organized religion troubled me during my youth. Emotional, undersized and given to fantasy, I was an early candidate for salvation. Only in my own later years have I seen his position as the beginning of my own agnosticism."

If this book falls down, it may be in its detailed descriptions of the workings of farm machines and cars from that period, but even they have an allure because of the author's lively narration.

He also goes into great detail about the draft horses that powered farm implements before fossil fuels took over, often spicing the descriptions with humor, as in this passage:

> "We usually had six horses, working abreast, pulling a gang plow; shoulders were inspected and washed down with weak saltwater in evenings, and each horse had its own collar. When we lent horses at harvest time to our neighbor, Sam Campbell, each one was accompanied by its own collar, and Campbell always inquired about each horses's name.
>
> Sometimes this was embarrassing, as when a particularly rigid-dispositioned animal was named "Sam," or a mare mule was named "Alice V" for a local piano teacher."

It's hard to imagine farming with horses without ever having done so. (Although having ridden horses since a toddler and spent many a summer day as a child pulling weeds from fields of corn and soybeans, I can appreciate the arduousness of the task.)

Mason brings it to life, as in this description of a team of horses running out of control:

> "...my team began to trot on the outward trip of the last round and to gallop as they turned to produce the last furrow. Controlling them was impossible. I tried to retard them by dropping the plow deep into the ground, but this only raised the wheels of the sulky crazily above the ground, and I soon abandoned the effort."

Anne Fitzgerald, author of Rock Creek Crossings, writes about agriculture for *The Wichita Eagle*, in which this review appeared September 27, 1992. It is reprinted by permission of the Wichita Eagle Beacon Company.

In the book's foreward, Wes Jackson, author and co-founder of The Land Institute in Salina, calls it "More than a mere footnote. It is another view, like opening a door on another side of a house for the first time."

Now residing in Port Orford, Oregon, Mason was in Kansas for a book signing at The Land Institute in conjunction with its annual fall visitors' day and open house.

Changing Consciousness: Exploring the Hidden Source of the Social, Political and Environmental Crises Facing our World. A Dialogue of Words and Images.

By David Bohm & Mark Edwards
Harper, San Francisco, 1991
Paper, $16.95

Reviewed by *Suprabha Seshan*

Interns this year, as in years past, have given a great deal of time and energy to "Considerations for a sustainable society" (the title of The Land's fall curriculum) in our efforts to gain a deeper understanding of the world. We have thought hard about a new economics for the future, about a more humane and just society, about what it means to live as a person-in-nature or person-in-community, about revamping political systems, about the energetics of a sustainable way of life, about religion, gender, and science. We have discussed each of the above, in particular, and in the context of a greater whole. The essence of such deliberations has freely moved from the classroom to our lives outside the classroom, weaving together our personal and private beings with that of the group and society at large.

A theme that has frequently come up is the paradoxical nature of things, the apparently unresolvable extremes in society and within each one of us. Familiarity with conflict in our everyday lives has occupied much of our individual and collective thinking this year. Class often started with a rigorous critique of social and environmental issues and ended with the big unanswerable "Why?" question. At some deeper level everything seems to point to the same origin, to an underlying, all encompassing, fundamental process which we acknowledge but also find the most difficult to articulate or explore.

It is in this context that I would like to introduce what I think is a fairly unusual book by two people I happen to know, that has as its primary objective a call for attention, or perhaps greater attention, to that deeper, fuzzier aspect of our lives. The book is *Changing Consciousness : Exploring the Hidden Source of the Social, Political and Environmental Crises Facing our World*. The authors, physicist David Bohm and photographer Mark Edwards, are both well known in their fields and each is unusual in attempting to link his "discipline" with social and psychological paradigms. They came together originally through their mutual association with the late philosopher and educator J. Krishnamurti, and both were profoundly affected by their contact with him.

The "hidden source" is the human thought process, which, the authors suggest, is at the root of society and technology as we know it. Bohm and Edwards propose that unless the thought process changes, political, environmental and social crises will not disappear.

> "...Indeed, for both rich and poor, life is dominated by an evergrowing current of problems, most of which seem to have no real and lasting solution.....the ultimate source of all these problems is thought itself, the very thing of which our civilization is most proud, and therefore the one thing that is 'hidden' because of our failure to seriously engage with its actual workings in our own individual lives and in the life of society...."

This book unfolds as a dialogue between Bohm and Edwards. They talk through the whole course of the book which invites the reader to be a third participant. Juxtaposed to the dialogue is a picture essay by Edwards, a fascinating arrangement of photographs taken from different corners of the world, highlighting not only the seriousness of crises facing us but also the connection between the crises and the daily lives of ordinary people the world over.

If interested in only a cursory examination of the content of *Changing Consciousness,* one could flip it open to any page, skim it and have a general idea as to what the book is all about. It is almost like a hologram as any part will tell the whole. One may read further and wonder why the authors appear to raise the same points over and over again, albeit in different ways. Having said it at the outset—that thought is at the root of all our problems—why do they reiterate the issue? Besides, is it not a little like stating the obvious? Another reader may say "very interesting, but what are they asking us to do, meditate while the world burns?" A reader who did indeed take either of these views would have missed something very precious. Reading the book demands, at the very least, an open but critical mind; reading it closely demands (as I see it) a willingness to be deeply

introspective and to be intimate with one's own reactions and responses. I could not read three lines straight without pausing to wonder, is this really so? Is this me? Is this society? The tendency is to say, "but it's not like that, that is not true, things are oversimplified, I believe this, my life is good; the problem is out there, not in here," etc. Strangely enough, all this is part of the central theme of the book: the nature of our minds, our consciousness.

Changing Consciousness takes us through an examination of the very structure of thought. Bohm and Edwards start by observing our tendency to produce conflict and use the theme of nationalism and political identity to enquire into divisiveness and fragmentation. How real is the notion of nationhood and where does it come from? The geographic boundaries that exist today between nations were originally a product of thinking and are maintained today by thought, yet people are willing to die for them. In this context the authors make a distinction between thinking and thought in that the latter is a movement of the past, of memory and is instrumental in creating images that are then imposed on the world, while thinking is more an activity of the present. The original perception of a fact either through the senses or through the mind feeds into the memory bank where it is stored. This becomes either a tacit form of knowledge, (e.g. how to ride a bicycle) or a more informative kind which then inform action almost automatically- how to be, what to do, what to believe and so on. In addition, the stored thought also influences further perception. Through selective and abstractive processes thought creates a version of reality, which at times is representational and at times transformational. But the one thing it does not do is to acknowledge that it is the source of this new version of reality. Pollution, poverty, destruction of nature and social fragmentation are all outcomes of its absractive mechanism, but once thought creates these problems it divorces itself from that creative process and treates them as separate issues. Bohm and Edwards suggest that there is a deceptive aspect of thought with which it defends itself against evidence of its own falseness, particularly when fundamental beliefs are threatened.

At this point I cannot help but think of interpersonal relationships and of how at times one feels entrenched in certain destructive mechanisms of being. How many of us are willing to examine what we hold to be very dear? How many of us are willing to understand problems as created from within and not as objectified, externalized symptoms? It doesn't take much effort to see that we live so much by myths of our own making, myths about ourselves and about other individuals. The perpetration of the myth creates, at times, tremendous problems within oneself and between persons. Problems in environment, politics and technology are not so different. They are not just because of some one else; they too have as their source the all pervasive fragmentary thought process. Bohm and Edwards propose that side by side with all the work that people are trying to do to make the world a better place and to heal the planet, there must be an accompanying enquiry into the nature of thought, our thought.

The authors explore the changes that took place in thinking with the increase in technological complexity, by looking at examples of native and indigenous societies in different parts of the world. Again the startling photoessay that accompanies the dialogue provides a visual dimension to the enquiry. Central to this is the examination of the relationship between emotions and intellect which differ in their immediacy of response to the world around. Throughout their conversation Bohm and Edwards also explore the root meanings of words, partly to show how they have changed and partly also, I think, to loosen the rigidity with which we hold them. Part of attending to our thought process and exploring underlying assumptions is to look closely at language, which informs ourselves and our cultures in such fundamental ways. e.g. "The word intelligence is based on a Latin root, intelligere, which in turn is based on two words: inter and legere. Legere might mean 'to choose' or 'to gather' - [so] you could say that it means to choose between".

There is more to *Changing Consciousnesss* than exploring the limitations of thought. In the final section, Bohm and Edwards talk about the role of dialogue, which they claim is crucial to a collective approach that will give sustained attention to the process of thought. Dialogue is not for the exchange of ideas or opinions but for the "free flow of meaning" that will facilitate the "suspension" of rigidly held notions and assumptions. They even discuss the medium for dialogue and the kinds of things a group could do to unravel conditionings that are collective in origin. The flow of meaning is the very essence of culture, something that is shared by all. Lack of "meaning" gives rise to feelings of emptiness, isolation and fragmentation that is such a common feature of society today, particularly so called "developed" or "advanced" societies.

I recommend this book as essential reading for anyone involved in environmental and social movements who is prepared to do some intensive soul searching. It contains no answers, makes few claims, has no poetic or literary or academic style; it really is a conversation into which you are invited. As I was finishing the last part of this review, I heard that David Bohm had died in the last week of October, in England, after years of heart trouble. There is little doubt that he made an outstanding contribution in addressing very fundamental issues in the world.

A Thousand Acres

by Jane Smiley
Fawcett Columbine, New York, 1991
Paper, $12.00, 371 pages

One is the Sun

by Patricia Nell Warren
Ballantine Books, New York, 1991
Paper, $12.95, 535 pages

Reviewed by *Dana Jackson*

Two works of fiction, one a recent Pulitzer prize winner that is a national bestseller, the other a little-known literary landmark that has received scant attention, have been important reading for me in recent months. Both have enlarged my understanding of the nature of human domination of the earth and how it relates to the domination of some members of the human family by other members.

A Thousand Acres by Jane Smiley, an English professor at Iowa State University, has been widely acclaimed as "powerful and poignant," and "brilliant, a thrilling work of art." I agree with all of the praise. This novel has the intensity, pain and depth of great tragedy, and unforgettable characters that one almost wishes to forget. Based on Shakespeare's tragedy of *King Lear*, the story begins when an Iowa farmer named Larry unexpectedly decides to give up control of his 1000 acre farm and form a family corporation with each of his three daughters and their husbands owning a one-third share. Then all hell breaks loose, only slowly, tortuously.

The description of large scale corn-soybean farming in Iowa, where acceptable standards for "clean" fields and high yields commonly require the intensive use of agricultural chemicals, is insightfully matched by the description of highly competitive corn-soybean farmers, establishing status through ownership of new farm equipment and land. Farmers achieve success by heavy-handed ownership, control and domination of the land and their families. The dark side of this success reveals itself particularly in the lives of women and children who are owned, used and abused in the same way that the land is owned, used and abused.

The characters are not stereotypes, however, and they are not completely analogous to those in King Lear, although similarities are obvious. I have less empathy for Larry than Lear, more for Ginny and Rose than for Goneril and Regan, and less for Caroline than Cordelia. Each character is carefully drawn as an individual and as a family member involved in complex relationships with other family members. In the painful unraveling of the story, one almost wishes not to know the characters so well, not to see so clearly through the ideas of the narrator, the oldest daughter Ginny.

Ginny is a person who always tries to see the good side of things and avoid conflict. She doesn't question her role as a daughter and wife until Rose makes her recall incidents that she has denied and forgotten. She doesn't question the way they farm until Jess Clark suggests that her miscarriages could be caused by the nitrates in their drinking water. She later refers to herself during this period of her life as a "ninny."

In *King Lear*, crimes against "nature," the violation of natural relationships, as between father and daughter, bring on chaos and violence. The same occurs in *A Thousand Acres*, although the nature of the violation takes a different twist. Smiley expands on the theme by connecting the violation of the land through aggressive farming practices to violation of human relationships and health (breast cancer and miscarriages) as farm families drink the groundwater contaminated by their farming practices. It is clear that what we do to the earth we do to ourselves. Jane Smiley's novel illustrates that we cannot have a sustainable society or a sustainable agriculture unless all members of the land community are valued and respected.

One is the Sun presents the same theme. When I began reading this historical novel by Patricia Nell Warren, I kept imagining that I was seeing a movie. It has all the qualities of a popular adventure film: romance, adventure, danger, spirituality, good and evil. It is a grand saga featuring handsome men, beautiful Indian warrior maidens, good Indians and bad Indians, Bavarian nobility, evil highway robbers and equally evil church fathers. There is drama in the herds of horses and cattle moving through mountain passes on their way to be sold in Gold Rush era San Francisco. The battles, ceremonies and love stories are all set in the majesty of Montana mountain wilderness between 1857 and 1862.

Among the familiar images of an heroic wild, wild west, are unfamiliar images that make the story unique. The main characters are peace-seeking native Americans led by an old Indian medicine woman whose followers included mixed bloods and whites as well as native Americans. This healer, Earth Thunder, teaches them to love and respect Earth, to respond to Her wisdom through patterns of daily living as well as through special ceremonies. In the circle of lodges, women have status equal to men, and men must respect women's rights to make choices. Women are not banished to "moon" lodges each month during their menses. They are expected to take charge of their own lives and share responsibility for the physical defense of their community by

CLEANING TREE

learning to shoot with a bow and handle firearms. Also, nurturing is to be demonstrated by both genders.

Earth Thunder is a character of mythological proportions, an ideal of wisdom, moral strength, independence and compassion. Her knowledge of the human spirit and ability to empower people to heal themselves is complemented by her knowledge of the plants that aid in healing. She has a strong intuition for imminent danger and is quite competent with bows and guns. Though she has a sense of humor, she also has a sharp tongue that knives out pretense and false assumptions from her apprentices.

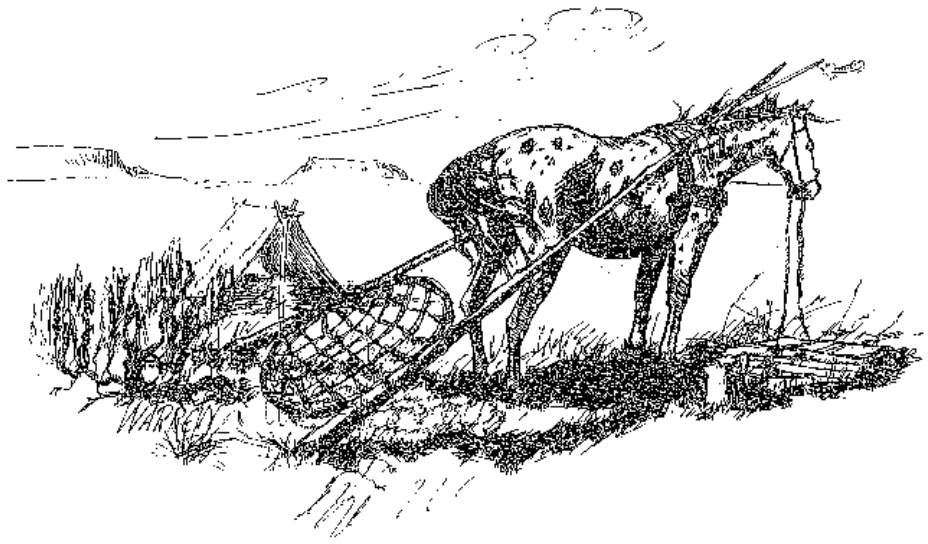
The "Mother Wheel" set up in the Deer Lodge Valley of Montana is doomed to be crushed as soon as its strength is understood by the Roman Catholic and Protestant missionaries. After Earth Thunder's journey to Deer Lodge Valley with her young apprentice Singing River and a band of Indian survivors from another lodge, she becomes allied with Valley mixed bloods (Metis) and lives under the special protection of a successful Metis trader named East Deer. They establish their lodges and begin to create items of trade, grow a garden to supplement the hunters' harvest, and build a large circle of stones within which Earth Thunder performs healing ceremonies. They are joined by a family of Bavarians sent on a mission by the matriarch of their family who has taught them the ancient Earth religion associated with ruins of ancient stone monuments found in England. Gold in the valley and the determination of a Protestant clergyman to destroy the "witch" and her followers bring down the settlement.

This is not a tragedy like *A Thousand Acres,* which is an account of contemporary people revealed so well that readers "live" through the story with the characters, at least those who are familiar with the Midwest corn-soybean-hogs economy do. Smiley's novel surprises the reader by an "unnatural" turn of events that yanks the story from one disruptive event to another, sliding toward escalating, tragic consequences.

One is the Sun engages the reader to care for the characters, to hope for them and be disappointed with their reverses, but the reader does not lose sight of the story as a story, as an historical-based piece of fiction. The villains are classic: a highwayman with no redeeming qualities except maybe that he likes horses (his followers are called "Polecats") and the Rev. Uggams, clearly a merciless power-hungry religious fanatic.

One is the Sun is hopeful in that it gives the reader a glimpse of what a community could be like in which the culture and governing structure value men and women equally, in which each individual is encouraged to develop talents and interests into useful skills appreciated by the community, in which all parts of the natural world taken to support humans are used respectfully and carefully.

A Thousand Acres does not leave the reader hopeful. Smiley shows us how the industrial agricultural system works through a culture organized around ownership and domination; but like Ginny who tells the story, once we understand, we will not be "ninnies" again.



CAT AND HER TRAVOIS

Patricia (Patch) Nell Warren lives near Los Angeles and is now, appropriately, writing a film script for her novel. But don't wait to see if it becomes a movie. Read the book now and you will appreciate the movie more later. Patch is also an artist. The sketches with this review are illustrations in her novel.

1992 Interns on Water Well Road.

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