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Dr. W. Brönnimann
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Ecological Problems and Notions of the Relationship between Humans and Nature in Jane Smiley's A Thousand Acres and William Shakespeare's King Lear



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Introduction

## Introduction

In this paper I want to discuss Jane Smiley's *A Thousand Acres* and William Shakespeare's *King Lear* with regard to the notions of the relationship between humans and nature that are expressed by certain protagonists in these literary works on the one, as well as with regard to some of the ecological problems related to agricultural practices in *A Thousand Acres* and their effects on humans and nature on the other hand; as far as Jane Smiley's novel is concerned, I shall also comment on some of the "ecologically sound" farming methods that are shown in this book, and trace some of the ecological themes of the novel.

My primary aim in examining the notions that some of the characters of these two works of literature have with respect to their surrounding environment will be to relate such individual notions to two more general concepts of nature, namely either to a dualistic Western concept of nature which perceives humans as superior, or, at least, separate from nature, or alternatively to the more holistic concept of nature that is advocated by ecologists.

The paper is divided into four sections. In section one I attempt, by briefly introducing key concepts and definitions to which I shall refer throughout the paper, to set the stage for the ensuing discussion of *A Thousand Acres* and *King Lear* with regard to those aspects which I have just mentioned above. In section two, which represents the lion's share of this paper and thus takes centre stage, I will exclusively concentrate on *A Thousand Acres*, whereas section three will be earmarked for a discussion of Shakespeare's *King Lear*. Last and least, I will finish this paper by making a few concluding remarks, in which I try to emphasise the importance of the ecological theme in literature.

Setting the Stage 1

I. Setting the Stage

### A. Environmental Crisis and the Dualistic Conception of Nature

The powerful threat that the current environmental crisis in general and recent ecological disasters in particular, both of which have been seen by Meeker (1980: 26–27) in his book *The Comedy of Survival: In Search of an Environmental Ethic* as "symbol(s) of apocalyptic expectations", pose, has led to a widespread concern for the obvious degradation of the environment.

Although there is undoubtedly a profound feeling that something must be wrong with the state of the world we live in, the relatively recent awareness of the potentially fatal consequences of ecological crises for the conditions required by all life on earth has not seriously modified the dualistic notion, which sets humans apart from their surrounding environment, and enables them to act as controllers of it, that we have in respect of our environment. This assumption of a dualism between humans and nature has undoubtedly a very long history in Western society and

has become an integral part of Western science ... . We conceive of nature as something external and independent of ourselves.

Bargatzky and Kuschel (1994: 9)

In its modern and still current form the Western concept of nature came—as Bargatzky and Kuschel (1994: 9–10) in their book *The Invention of Nature* illustrate—into being about the turn of the 18<sup>th</sup> century and had reached its full development during the decades following the industrial revolution.

Philosophically and intellectually, the prevailing perspective associated with this mentioned dualistic world view, namely the desirability to stamp humans' will on non-human nature, derives from—as Martin (1994: 69–71) in her article *Ecology, dualism, and utilitarianism: Attitudes toward nature in American society* shows—a blending of two fundamental tenets; namely that of utilitarianism, which maintains that "nature' is for man's benefit" and therefore "it is man's duty, as well as his privilege, to use nature for his own needs" on the one, and that of materialism, which considers nature to be "a 'natural resource' to be used by man for his relaxation, enjoyment, and economic utility" on the other hand.

### B. Nature as an Organism or Humans Are Part of the Web

But the belief that nature is something separate from man, that there is a dichotomy between human and non-human nature, is erroneous—humans are deeply embedded in nature. As McLaughlin (1993: 88) in his book *Regarding Nature*. *Industrialism and Deep Ecology* says: "We exist within a web of a complexly interrelated nature. We are parts of the web."

This is one of the most fundamental insights of ecology presented in a nutshell. Precisely because of this interdependence of the various components of nature often an analogy is drawn between nature and that of an organism, where the different organs act in harmony with each other for the benefit of the whole. From such a viewpoint nature as a whole is indivisible. It cannot therefore be separated into independent pieces.

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### C. Of Ecology and Ecosystems

But before I can proceed from here to a discussion of some of the key thoughts of ecology, it first becomes necessary to give a brief definition of the term *ecology* itself and to expound the whole concept of ecosystems.

Ecology is defined by Ingold (1986: 4) in his book The Appropriation of Nature. Essays on human ecology and social relations as "the study of the interrelations between organisms and their environments". Defined slightly more informally, ecology is concerned with "humans' relationships to the plants and animals of the natural environment" (Meeker (1980: 120)). Since the focus of the latter definition is specifically on the relationship of humans to non-human organisms, we can also say that one of ecology's central interests lies with the study of humans' interspecific relationships within their surrounding environment.

Ecologists use the term ecosystem as an essential analytical unit to designate a community of living organisms such as animals and plants as well as inorganic substances, all of which to a greater or smaller degree depend on and interact with each other in a habitat.

Ecosystems, like communities, can be of any size or ecologic rank. Thus, a drop of pond water together with the organisms that live therein constitutes a small ecosystem. At the extreme, the whole earth and all its plant and animal inhabitants together constitute a world ecosystem. Dice (1955: 3)

Humans are therefore treated in ecological studies as inseparable components of and within a specific ecosystem.

Since ecosystems can essentially be of any size or ecologic rank, it becomes often very difficult or even downright impossible—to define the precise boundaries of a single ecosystem. It is important in this respect to note that ecosystems and natural systems in general are most often influenced to some extent by all the surrounding systems. In this sense they can be seen as truly open systems, a characteristic which undoubtedly adds to their complexity. Therefore the functioning and complexity of ecosystems are often simply beyond human understanding. McLaughlin (1993: 93–94) points out that "even the relatively simple system of a pond escapes anything approaching full knowledge".

If this is recognised, it becomes also apparent that any human intervention into an ecosystem can result in effects which can neither be known nor controlled.

# II. Agriculture, Ecology and Attitudes towards Nature in Jane Smiley's A Thousand Acres

### A. The Transformation of the Landscape—Nature as Raw Material

In *A Thousand Acres* the predominant attitude towards nature, an attitude, which is particularly conspicuous throughout the whole book in Larry Cook's behaviour, maintains that nature can be used by humans as a reservoir of raw materials. These raw materials appear to be "infinitely malleable and worthy of any transformation which promises greater 'ease and comfort'" (McLaughlin (1993: 71)), no matter how inherently resistant these raw materials are to the modifications attempted by humans.

The great difficulties that Sam and Arabella Davis together with John Cook experience in modifying the swampy patch of land they had acquired in Zebulon County by means of drainage bears witness to this:

My Grandmother's parents, Sam and Arabella Davis, were from the west of England, hilly country, and poor for farming. When they came the first time to Zebulon County, in the spring of 1890, and saw that half the land they had already bought, sight unseen, was under two feet of water part of the year and another quarter of it was spongy, they went back to Mason City and stayed there for the summer and winter. ... In Mason City, they met another Englishman, John Cook ... Cook was only a clerk in a dry-goods store, but a reading man, interested in the newest agricultural and industrial innovations, and he persuaded my great-grandparents to use the money remaining to them to drain part of their land. ... When the weather warmed up, John quit his job, and he and Sam went out among the mosquitoes, which were known as gallinippers, and began digging. ... John and Sam dug, leveled, and lay tile lines until the ground was too frozen to receive their forks ... It took John and Sam and, at the end, my father, a generation, twenty-five years, to lay the tile lines and dig the drainage wells and cisterns. (A Thousand Acres: 14–15)

But this whole project of transformation does by no means end with John and Sam's combined endeavour. The whole attitude which sees land resources as something that can always be modified at one's own will, should such transformations yield any increased agricultural efficiency and should such transformations therefore ultimately be to one's own economic benefit, is faithfully inherited by Larry Cook.

### 1. The Destruction of Natural Ecosystems and its Effects on Humans

Once the large objective of draining most of the land is accomplished, smaller ecosystems have to go as well, if they encumber the cultivation of the now drained and highly fertile farm land in any conceivable way.

When we were children, Rose and I used to swim in the farm pond down toward Mel's corner. The pond, an ancient pothole that predated the farm, was impressively large to us, with a tire swing hanging over the deep end. Not long before the death of our mother, Daddy drained the pond and took out the trees and stumps around it so he could work that field more efficiently. (A Thousand Acres: 85)

The destruction of such natural ecosystems has direct reverberations on humans' *Befindlichkeit*—and ultimately dissolves humans' once felt sense of a certain harmony with "outside" nature.

What Rose and I once did in our pond, simply float on our backs for what seemed like hours, soaking up the coolness of the water and living in the blue of the sky, was impossible here. There were too many hurtling bodies. There was nowhere to be privately, contemplatively immersed, one of summer's joys. The energy we had brought with us, the expectation of fun, seeped away, and left us even more listlessly reluctant to go home.

(A Thousand Acres: 95)

The human substitutes offered for the loss of natural ecosystems, which consist in the case of *A Thousand Acres* of swimming pools offered as a replacement for natural water systems such as ponds and small lakes, cannot conceivably make up for the loss of the latter.

Even when my father was a young man, there were so many lakes and pothole ponds in Zebulon County that the idea of building a swimming pool would have been ludicrous, but now every town of any size either had built one or wanted to ... (A Thousand Acres: 87)

### 2. Land Transformations in a Historical Perspective

The whole project of transforming wetlands, small ponds and lakes from what had basically either been swampy patches of soil or small water ecosystems into "fertile, black and friable" land that is ideally suited for agricultural purposes mirrors and even recreates a whole number of similar kinds of land alterations that have been conducted ever since the emergence of agriculture in the evolutionary history of humankind. The whole situation appears different from humans' earliest attempts at modifying land for agricultural purposes only in respect of the availability of advanced technological tools (as compared to the more primitive implements used by early agriculturists). Such tools in the form of industrially manufactured drainage tiles constitute the very basis of this whole process of land transformation in *A Thousand Acres*.

Once revealed by those precious tile lines, the soil yielded a treasure of schemes and plots, as well. Each acre was something to covet, something hard to get that enough of could not be gotten. (A Thousand Acres: 132)

There was no way to tell by looking that the land beneath my childish feet wasn't the primeval mold I read about at school, but it was new, created by magic lines of tile my father would talk about with pleasure and reverence. Tile "drew" the water, warmed the soil, and made it easy to work, enabled him to get into the fields with his machinery a mere twenty-four hours after the heaviest storm. Most magically, tile produced prosperity—more bushels per acre of a better crop, year after year, wet or dry.

(A Thousand Acres: 15)

# 3. Land Transformations and the Relationship between Agriculturist and Nature

McLaughlin (1993: 11) shows that the agriculturist by undertaking such large transformations of the land at the same time equally transforms his whole relationship to the rest of nature—and to the "piece of nature" converted by him in particular. For the agriculturist nature once transformed

becomes "something to be fenced and planted, altered in accord with desire, rather than dwelt within". The land which the agriculturist owns can from now on be divided into

'fields' (areas cleared of natural vegetation), 'weeds' (undesirable plants intruding upon fields), and 'crops' (desirable plants suited to human purposes).

In *A Thousand Acres* only in such a place as the dump, which constitutes an ecosystem in its own right, is the "untamed nature", the great variety of native plants—invariably seen by the agriculturist as "weeds"—and not domesticated animals allowed to exist, since there, amongst all the accumulated farm rubbish, they cannot enter into conflict with the arable land. It is not surprising at all that Jess considers this place as "still the most interesting spot on the farm" (*A Thousand Acres*: 122).

# B. "The Industrialized Farm"—Modern Farming Methods in A Thousand Acres and Possible Alternatives to them

#### 1. From Pastoral Garden to Industrialized Farm

The predominant model—as Meeker (1980: 86–87) shows—which many of the agriculturist settlers of European extraction in America had in mind when they first began cultivating the newly acquired land was that of a pastoral garden. But the settlers' idealistic vision was increasingly demolished "as the American garden was gradually transformed into an industrialized farm ...".

Such "an industrialized farm" is increasingly dependent on technological tools in the form of advanced farm machinery by means of which it becomes possible for humans to keep untamed nature out. "Dangerous or competitive plants and animals are strictly excluded. ... The machine is an indispensable part of the pastoral garden, for it alone gives people the power to civilize nature."

Jess said: "Ah, you farmers always think a big new piece of equipment is the answer." I glanced at him. His expression was aggressive but merry, and Ty took this as a joke. He said, "Nah. Two big new pieces of equipment. That's the answer."

(A Thousand Acres: 70)

### 2. The Modern Practice of Monocropping and Alternatives to it

It is obvious that further technological advances in modern farming methods and the introduction of new planting techniques, all of which are widely used in agriculture today, in the meantime allow a farmer to make extraordinarily effective use of his land resources in terms of productivity. Such modern farming procedures most often involve growing large areas of one or two species of food plant on a field, a practice, which is also known as monocropping.

Although large-scale agriculture as shown in *A Thousand Acres* today almost exclusively involves monocropping and the application of modern farming methods, alternative—and in some ways complimentary—patterns of agriculture are equally apparent in the form of horticulture and organic farming.

#### a. Horticulture

Horticulture, albeit it is practised by Ginny and Rose only on a rather small scale, involves—as Campbell (1983: 149–150) shows—"the husbandry of a mixed group of food plants in a garden, near a dwelling". This method maintains—in sharp contrast to monocropping—"a considerable diversity of species within the area cropped". This diversity in turn

helps to preserve the crops from the sort of epidemic infestation of disease and pest which tend to infest field agriculture.

Therefore often natural fertilizers and ad hoc devices (the old tin can in the passage below) instead of chemical fertilizers and insecticides are used for the cultivation of plants in horticulture.

I was putting in tomato plants the next day, a hundred tomato plants, mostly Better Boys, Gurney Girls, and Romas that Rose had grown in her cold frame. I had a knack with tomatoes that I had developed into a fairly ritualized procedure, planting deep in a mixture of peat, bonemeal, and alfalfa meal, then setting an old tin can around each plant to hold water and repel cutworms. Around that, leaves of the *Des Moines Register*, then mounds of half-decayed grass cuttings on top of those. Every year, we said we would take tomatoes to Fort Dodge and Ames and sell them at farmers markets, but every year we canned them all instead—sometimes five hundred quarts of tomato juice that we drank like orange juice all winter.

(A Thousand Acres: 50)

One further inherent quality of horticulture is that the diversity of plants carries with it a certain stability.

Something that always has amazed me is the resilience of plants. My tomato vines showed no ill effects from the onslaught of the storm, weren't even muddy, since I had made it a point to mulch them with old newspapers and grass clippings. Some of the tenderest marigolds had been beaten down, and the trellis for the peas had fallen partly off its framework, but all the greenery sparkled with new life.

(A Thousand Acres: 197-198)

Also very often horticulture offers a test ground for new varieties of plants with which one can experiment on a small scale without having to take economic considerations ("consulting the market") into account. Jess contrasts this imaginative license to the dull practice of monocropping.

"... Over at our place, Loren and my father don't have any ideas at all. Just corn and beans, beans and corn. When I was a kid, at least there were some hogs and cattle, and those sheep Loren raised for 4-H. And my mom's garden, too. She was always trying new varieties, or buying a few okra seeds to see if she could get them to grow this far north. Now even hogs would seem radical to them."

(A Thousand Acres: 36-37)

#### b. Organic Farming

Organic farming as the other discernible alternative to monocropping, is—although not practised in *A Thousand Acres* by any of the farmers in Zebulon County—at least mentally embraced with a great eagerness by Jess, whose ultimate goal is, before the break with Harold occurs, to take over his father's farm and, after having changed the whole production methods, to henceforth run it according to the principles of organic farming.

"I'm beginning to think there isn't any reward for putting up with all of this."

"A big farm and the chance to run it the way you want is a reward."

(A Thousand Acres: 160)

Although it is certainly unrealistic to see organic farming as having any great economic potential in the Iowa that is portrayed in *A Thousand Acres*, the existence of an association of organic farmers in the state of Iowa at least indicates that this alternative style of agriculture has attracted some adherents to it and is being actively practised.

"No, listen. I got some stuff in the mail. Did you know there's an association of organic farmers in this state? Guys who've never gone to chemicals, or who stopped using chemicals ten or fifteen years ago. It's pretty inspiring. And in spite of no publicity and ridicule and stiff opposition, it's a pretty lively and growing association. There's a guy over near Sac City that I thought I'd go visit, if you want to come along."

(A Thousand Acres: 160)

If we can rely on Jess's truthfulness in his account of the visit to the organic farm in the passage below (and thus discount the possibility that he is totally blinded by his fanciful ardour for the whole notion of organic farming), the economic viability of alternative practices such as organic farming, which, in contrast to monocropping, favour the cultivation of nonhybrid varieties, is unmistakably corroborated.

"Ginny, I went to see that guy, the organic guy. I just got back. It was amazing. He hasn't used chemicals on his land since 1964. He's seventy-two years old and looks fifty. They've got dairy cattle and horses and chickens for eggs, but his wife only cooks vegetarian meals. They get great yields! Just with green manures and animal manure. The vegetable garden is like a museum of nonhybrid varieties. We had carrot bread and oatmeal from their own oats for breakfast, and carrot juice, too, and he had twenty different apple varieties in his orchard. I mean it was like meeting Buddha. They were so happy! I wish you'd come."
(A Thousand Acres: 217)

## C. Problems Arising from the Use of Modern Farming Methods

### 1. The Need to Control Pests in Monocropping

While—as I have tried to show above—the mixed field approach taken in horticulture and organic farming tends to lessen the risks of any particular pest, the practice of monocropping, in sharp contrast to that, dramatically increases the need to control pests, some of which are able to wipe out an entire field. But this trade-off for a further increase in productivity can by no means dampen Larry Cook's great enthusiasm for new farming method, which he is shown to embrace wholeheartedly.

His conservatism, however, was only fiscal. Beside it lay his lust for every new method designed to swell productivity. In 1957, an article ran in *Wallace's Farmer* entitled "Will the Farmer's Greatest Machine Soon Be the Airplane?" The accompanying pictures were of our farm being sprayed for European corn borers, and my father was quoted as saying, "There isn't any room for the old methods any more. Farmers who embrace the new methods will prosper, but those that don't are already stumbling around."

(A Thousand Acres: 45)

### 2. Agricultural Chemicals as a Necessary Requirement of Modern Farming

The mentioned necessity to control pests together with a desire to further increase agricultural productivity has made the use of agricultural chemicals—such as soil nutrients, artificial fertilizers and various kinds of insecticides, fungicides and herbicides, many of which are neither controlled nor monitored—a necessary requirement of modern farming.

A farm abounds with poisons, though not many of them are fast-acting. Every farmer knows a chemical dealer's representative who has taken a demonstration drink of some insecticide—safe as mother's milk, etc. ... Arsenic is around, in the form of old rat poison. There were plenty of insecticides we used in the hog houses. ... There were atrazine and Treflan and Lasso and Dual. I knew to wear a mask and gloves if I was handling any of these chemicals. I knew never to eat without getting all traces of chemicals off me, especially the odor. (A Thousand Acres: 310–311)

# 3. The Dangers of Agricultural Poisons to Humans and other Consumers in the Food Chain

The dangers of insecticides to humans became first apparent quite early as a result of their harmful effects on farm workers. In *A Thousand Acres* the pilot who sprayed Larry's fields with the insecticide for European corn borers most likely experienced a hurtful reaction to this agricultural poison, although the relevant passage doesn't make it quite clear whether the pilot's rash was indeed a reaction to the agricultural chemicals with which he sprayed the fields:

"Remember that guy who used to pilot the spray plane when daddy was having the crops sprayed from the air? He supposedly got very crazy as he got older. They used to find him in the crawl space under the kitchen, hiding out."

"Who told you that?"

"Marlene Stanley heard it from Bob, who knew that family up near Mason City. And he had this terrible rash. They didn't know if it was some reaction to all those chemicals, or whether it was from crawling around under the house."

(A Thousand Acres: 186-187)

Such harmful effects on humans who are in contact with insecticides and other poisonous substances is—as Campbell (1983: 162) in his discussion of agricultural chemicals points out—

hardly surprising as the insecticides are powerful nerve as well as stomach poisons, and many were developed from poison gases prepared during the Second World War.

But the detrimental effects of chemicals used in agriculture are by no means confined to humans who have been in direct contact with such poisonous substances. It is important to note that agricultural poisons

such as the chlorinated hydrocarbons DDT and Dieldrin (now no longer widely used) were passed up the ... food chains from producers to consumers, and at each trophic level the poisons became more highly concentrated until they became lethal.

It should therefore not surprise us if we find that the effects of farm poisons are both apparent in primary consumers, a group comprising herbivores (and therefore also including such omnivores as humans)—and even more so in secondary consumers, a group which consists exclusively of carnivores (and thus equally includes humans).

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That DDT (and presumably other chlorinated hydrocarbons as well) had been used on the farm to protect crops becomes evident in the passage below which shows Ginny rummaging through some of the objects stored in the barn for the last time before the farm is eventually auctioned off.

I picked up one of the dry and dented tins. The label said that it contained DDT. "Handle according to instructions." I wondered where it could all go. (*A Thousand Acres*: 365)

Equally, long-term effects of these agricultural poisons—many of which were specifically developed for their persistence and therefore tend to degrade only very slowly under natural conditions—together with the whole transformation of the environment from its original wetland condition to fertile farm land shows some dramatic effect on entire ecosystems; one of those effects can be seen quite clearly in the following passage in *A Thousand Acres*, where Ginny notices the decimation of the pelican population over time:

My walk along the river bank carried me to where the river spread out into a little marsh, or where, you could also say, where the surface of the earth dipped below the surface of the sea within it, and blue water sparkled in the still limpid sunlight of mid-spring. And there was a flock of pelicans, maybe twenty-five birds, cloud white against the shine of the water. Ninety years ago, when my great-grandparents settled in Zebulon County and the whole county was wet, marshy, glistening like this, hundreds of thousands of pelicans nested in the cattails, but I hadn't seen even one since the early sixties. I watched them. The view along the Scenic, I thought, taught me a lesson about what is below the level of the visible.

(A Thousand Acres: 9)

# 4. Agricultural Poisons as the Ultimate Cause of the Health Problems Suffered by the Female Protagonists in A Thousand Acres

These chlorinated hydrocarbons are, as I have already tried to point out above, likewise conveyed—"below the level of the visible"—to humans by means of the whole food chain. We have in fact

evidence that deaths from cancers (including leukaemia) ... are associated with excessive exposure to chlorinated hydrocarbons.

Campbell (1983: 164)

With regard to *A Thousand Acres* it is easy to see how such a crucial insight as this can provide us with an entirely plausible explanation of the "health problems" suffered by the female protagonists of the novel.

One shouldn't forget after all that in this respect it is not only Rose, who—after having undergone radical mastectomy and chemotherapy—dies of breast cancer at the end of the novel, but that Verna Clark's death, too, is caused by what "started out as breast cancer. Later on, it was just plain cancer. Lymphatic." (A Thousand Acres: 53). Equally, although the ultimate cause of her premature death is not conclusively elucidated in the novel, it cannot be ruled out that Edith Cook, too, died of some sort of illness directly or indirectly related to the use of agricultural chemicals, as there can be no doubt that there has been a long history of widespread use of agricultural chemicals not only on the Cook's farm, but similarly also on the Clark's farm. Highly dangerous poisons were certainly around at the time when both women were working on their farms.

Once Verna Clark was still alive and everyone was still using chlordane for corn rootworm, Harold dropped his instructions into the tank and reached in with his hand and picked them out. (A Thousand Acres: 311)

# a. The Contamination of the Ground Water by High Levels of Nitrates as the Cause of Ginny's and Rose's Health Problems

It is beyond doubt that it was the contamination of the ground water by nitrates, which had been widely used as artificial fertilisers in the cultivation of the drained farm land, that had the most detrimental effect on the human protagonists in *A Thousand Acres*. Nitrates, in contrast to other chemicals, are very mobile substances and scarcely react with the soil matrix. Although the pathway of a detected contamination can often not be unequivocally traced back to its source, it is quite evident that the contamination in *A Thousand Acres* was caused by high levels of nitrates being washed from the farm soil into the natural water systems and aquifers.

Nitrate (NO<sub>3</sub>) itself is not toxic, but it is transformed within the body of mammals to nitrite (NO<sub>2</sub>) and nitrosamines. Nitrite reacts with the haemoglobin of the red blood cells and thus impedes blood's capacity to absorb oxygen. Death is caused in human adults if 40–70 percent of the total haemoglobin has reacted with nitrite instead of oxygen.—The risk for babies and embryos, however, is much higher, since they still have a relatively small amount of haemoglobin in their blood. Nitrosamines are carcinogens (i.e. agents that increase the chance of a cell becoming cancerous). Stomach cancer in particular can be caused by the absorption of high levels of nitrosamines.

Having discussed the relationship between nitrates and the health risks they give rise to, it should now be clear that it was the high level of nitrates in the drinking water which was ultimately responsible for Ginny's miscarriages and Rose's breast cancer.

### D. Jess Clark as "the Ecologic Hero" of Jane Smiley's Novel

Earlier on in this section I have characterised Larry Cook as the adherent of a dualistic idea of nature; therefore it might now be interesting to turn to the only character in Jane Smiley's novel who shows a profound awareness of ecological issues—and to look at some of his views in some greater depth.

Jess is throughout the whole novel the only character who is from the beginning aware of the potential hazards of nitrates in the drinking water and tries to draw Ginny's and Rose's attention to these dangers.

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"You are such a nice person. How come you and Ty don't have any kids?"
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"Ty only knows about three. He couldn't stand it after that, so I've sort of kept the fact that we're still trying to myself." A harsh look crossed Jess's face, and I felt another jolt of fear. I reached for my jeans, saying, "Well, of course I shouldn't deceive him. I know—"

"It's the fucking water."

"What?"

"Have you had your well water tested for nitrates?"

"No."

He stood up and started pulling on his jeans, then sat down and put both his socks on without speaking. I could tell he was very upset. I said, "Jess—"

He exploded. "People have known for ten years or more that nitrates in well water cause miscarriages and death of infants. Don't *you* know that the fertilizer runoff drains into the aquifer? I can't believe this."

"It wasn't that. It just hasn't worked. Rose drank the water—"

"It's not uniform. It doesn't affect everyone the same, and not all wells are the same. Yours might be closer to the drainage wells."

(A Thousand Acres: 164-165)

One cannot avoid feeling a certain sense of irony when Ty, who is being portrayed as possibly the most honest character in the novel, accuses Jess of having "harebrained ideas", after Ginny told him that Jess had made it clear to her that the cause of her miscarriages was due to the high concentration of nitrates in the drinking water.

"I mean, Jess said to me that the reason for the miscarriages is probably in the well water. Runoff in the well water. He says people have known about it for years! We never even asked about anything like that, or looked in a book, or even told people we'd had miscarriages. We kept it all a secret!" ...

"Oh, Jess. He's got the most harebrained ideas."

(A Thousand Acres: 259)

### 1. Jess's Idea of the Preservation of Natural Wetland Systems

Decisive for Ty's judgement about Jess's ideas had certainly—among other instances—been Jess's jocular remark during the monopoly game about Harold's leaving the farm and the land to the Nature Conservatory in his will.

... but Jess said, "He's probably going to leave the place to the Nature Conservancy so that they can restore it to its natural wetlands condition."

Ty said, "What's the Nature Conservancy?"

"They buy land and conserve it." Jess looked at Ty in that merry but aggressive way. "Take it out of production, you know."

"God forbid," said Ty.

(A Thousand Acres: 109-110)

That—at least from an ecological standpoint—such an idea is not quite as absurd as it may have appeared to Ty, becomes apparent if we take into account the decisive role which wetland areas as important natural ecosystems occupy within nature. This point is concisely expressed in the following passage adapted from the Iowa Geology:

<sup>&</sup>quot;Well, I've had five miscarriages."

<sup>&</sup>quot;Jesus. Oh Ginny."

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With each passing year, more people are realizing the value associated with the preservation of natural wetland systems. These sites are recognized not only for their recreational and wildlife benefits, but increasingly for their importance as part of the natural hydrologic cycle. The management and restoration of Iowa's wetlands needs to be a cooperative venture among all segments of the state's scientific community.

Iowa Geology (No. 18; 1993)

If wetlands are viewed—as the quoted article above suggests—within the wider "natural hydrologic cycle", their central role with regard to the whole problem of the contamination of the ground water by nitrates, a point to which I have already referred above, becomes immediately apparent. The effects that the whole soakaway drainage system originally set up by the ancestors of Larry Cook, which, as we have seen, took more than a generation to accomplish, had on the level of absorption of nitrates cannot be exactly known; but it is beyond doubt, however, that—even if the use of chemical fertilisers had been equally widespread—had the natural hydrologic system been left more or less intact, the level of nitrates in the drinking water would have never reached such a lethal concentration in *A Thousand Acres*.

### E. "The Eternal Drip and Trickle of the Sea beneath the Soil"

Finally, although it never quite reached the surface of her consciousness until the end of the book, a certain unexpressed sense of a menace originating from "the eternal drip and trickle of the sea beneath the soil" (A Thousand Acres: 365), which later on is identified as "the lightless mysterious underground chemical sea" (A Thousand Acres: 370), had been slumbering in Ginny throughout the whole novel. This sense of a menace had been coupled in Ginny's mind with a distinct inquisitiveness as to the origin and the destination of this mass of water flowing underneath the topsoil and as to all the invisible subterranean layers.

One of my earliest memories, in fact, is of myself in a red and green plaid pinafore, which must mean I was about three, and Ruthie in a pink shirt, probably not yet three, squatting on one of those drainage-well covers, dropping pebbles and bits of sticks through the grate. The sound of water trickling in the blackness must have drawn us, and even now the memory gives me an eerie feeling, and not because of danger to our infant selves. What I think of is our babyhoods perched thoughtlessly on the filmiest net of the modern world, over layers of rock, Wisconsin till, Mississippian carbonate, Devonian limestone, layers of dark epochs, and we seem not so much in danger (my father checked the grates often) as fleeting, as if our lives simply passed then ... (A Thousand Acres: 46–47)

I passed the drainage wells, two on each side of the road, their grates a little rusted but still bolted firmly down. I stopped the truck and went and stood on one. Under the noise of the wind, I could faintly hear the eternal drip of the sea beneath the soil. (A Thousand Acres: 365)

As soon as Larry Cook's sexual abuse of Rose and Ginny is revealed in *A Thousand Acres*, however, what appeared to be one of (if not *the*) the central motives of the story, namely how personal greed and ruthless exploitation of natural resources ultimately lead to ecocide, is now blended in Ginny's mind with the repressed memory of the sexual exploitation she had suffered at the hands of her father.

"No. I think he [i.e. Larry Cook] had lessons, and those lessons were part of the package, along with the land and the lust to run things exactly the way he wanted to no matter what, poisoning the water and destroying the topsoil and buying bigger and bigger machinery, and then feeling certain that all of it was 'right,' as you say."

(A Thousand Acres: 343)

Lodged in my every cell, along with the DNA, are molecules of topsoil and atrazine and paraquat and anhydrous ammonia and diesel fuel and plant dust, and also molecules of memory ... All of it is present now, here; each particle weighs some fraction of the hundred and thirty-six pounds that attaches me to the earth, perhaps as much as the print weighs in other sorts of histories. (A Thousand Acres: 369)

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# III. Notions of Nature in Shakespeare's King Lear

### A. Nature as a Pivotal Notion in King Lear

The notion of nature is, beyond any doubt, a pivotal one in Shakespeare's *King Lear*. Even a cursory glance at the tragedy can reveal some of the frequent references made to nature. Thus, in two of the first instances in which the term "nature" is used in the play, it is first Lear in Act I, Scene 1, who, speaking to the King of France, decries his daughter Cordelia as "a wretch whom Nature is asham'd/Almost t'acknowledge hers" (lines 212–213). Later on at the beginning of Act I, Scene 2, we have Edmund's famous soliloquy, which I will discuss in some greater detail later on. Edmund begins this soliloquy with the words 'Thou, Nature, art my goddess' (line 1), but his idea of nature is a radically different one from that which Lear had in mind when he addressed the King of France in scene 1.

But in addition to this rather impressionistic observation, we can also draw on clear statistical evidence to show the importance of the term "nature" in *King Lear*. If we don't confine our count to instances in which 'nature' occurs as a simple word, but do equally include those instances in which it appears as either a morpheme or an allomorph, we can detect 51 incidents of it in the whole play. Apart from its basic form as a lexeme, it appears in such complex words as "natural" (2 instances), "disnatured" (1 instance), "unnatural" (7 instances), "unnaturalness" (1 instance).

Such statistical evidence can certainly strengthen the initial assertion as to the significance of 'nature' in *King Lear*.

### **B.** Two Fundamentally Different Attitudes towards Nature

When I now turn to a discussion of those aspects in *King Lear* which seem to me of importance within the framework defined by the keywords nature, man and ecology, it is with the intention to show how the traditional Elizabethan thinking of nature—as epitomised in all the "good" characters with whom the reader tends to sympathise—can to a certain degree be related to ecological insights that were outlined at the beginning of this paper, whereas one "bad" figure in particular, namely Edmund, can be seen as the apotheosis of an emerging exploitative Western concept of nature which endorses man's separation from and superiority over nature.

This very helpful distinction between those two fundamentally different attitudes towards nature in *King Lear*, namely between a traditional mediaeval—and essentially religious—attitude, according to which nature expresses "itself through social order and harmony" (Thompson (1988: 25)) and a more modern one, which sees nature as raw material that can be manipulated almost *ad infinitum* by humans, was made by John F. Danby (1958) in his book *Shakespeare's Doctrine of Nature: A Study of King Lear*.

### 1. Gloucester and Edmund as Proponents of Different Notions of Nature

These different concepts of nature are succinctly expressed in Scene I, Act 2 of the play. Gloucester first talks to his bastard son Edmund and afterwards Edmund mocks his father's speech in his ensuing soliloquy.

#### a. Gloucester's Speech and His Notion of Nature

These late eclipses in the sun and moon portend no good to us. Though the wisdom of nature can reason it thus and thus, yet nature finds itself scourg'd by the sequent effects. Love cools, friendship falls off, brothers divide: in cities, mutinies; in countries, discord; in palaces, treason; and the bond crack'd 'twixt son and father. This villain of mine comes under the prediction; there's son against father: the King falls from bias of nature; there's father against child. We have seen the best of our time. Machinations, hollowness, treachery, and all ruinous disorders follow us disquietly to our graves. Find out this villain, Edmund; it shall lose thee nothing, do it carefully. And the noble and true-hearted Kent banish'd! his offense, honesty! 'Tis strange. (lines 103-117)

Gloucester in his speech views nature in terms of the interrelatedness of the three domains or hierarchies over which it—according to traditional Elizabethan theory, as outlined by Spencer (1945: 7) in his book *Shakespeare and the Nature of Man*—rules:

She [i.e. nature] rules over the cosmos—the universal world; she rules over the world of created objects on earth; and she rules over the world of human government, of man in society.

All of these domains are "parts of the same ordered unity" or the same "unified scheme" (Spencer (1945: 20)) and thus the functioning of any single domain as well as its relationship to its two "adjacent" domains can be explained by simple analogy.

For Gloucester "these late eclipses" in the cosmos offer a lucid reflection of the current corruptions in both the domain of living beings—and here in human relationships in particular ("love cools, friendship falls off, brothers divide ... the bond crack'd 'twixt son and father")—and the world of human government ("in cities, mutinies; in countries, discord; in palaces, treason"). Events in the macrocosm are mirrored in the microcosm and vice versa.

In this traditional world view humans are assigned a definite place within the universal scheme. Humans can therefore only see themselves in terms of their allocated place, which is defined by its relation to the rest of the human and non-human environment.

The individual pattern can only be preserved by a man maintaining his right position in regard to the grand universal pattern.

Danby (1958: 26)

It is easy to see how this holistic world view can be readily linked to the essential insight of ecology that there is no dichotomy between humans and their surrounding environment.

Although modern ecology as "wisdom of nature" is bound to use stringent scientific methods in its analysis of the interrelationship of organisms and their environments and thus would certainly not embrace the metaphysical reasoning behind such a traditional Elizabethan concept of nature and the domains over which it rules as a God-created "unified scheme", its insight that humans are embedded in nature and thus can only be seen as inseparable components of and within an ecosystem—which itself is an open system and thus is continuously affected by all the other ecosystems—undoubtedly bears an intimate affinity in its holistic outlook to the traditional Eliz-

abethan mode of thinking in general and its orthodox belief that nature "is always something normative for human beings" (Danby (1958: 21)) in particular.

#### Edmund's Speeches and His Notion of Nature

After Gloucester has left the stage, however, Edmund betrays in his soliloquy the total disrespect he has for such traditional holistic considerations as expressed by his father and displays a scathingly cynical attitude to all the assumptions that have been made in his father's speech.

This is the excellent foppery of the world, that when we are sick in fortune—often the surfeits of our own behavior—we make guilty of our disasters the sun, the moon, and stars, as if we were villains on necessity, fools by heavenly compulsion, knaves, thieves, and treachers by spherical predominance; drunkards, liars, and adulterers, by an enforc'd obedience of planetary influence; and all that we are evil in, by a divine thrusting on. An admirable evasion of whoremaster man, to lay his goatish disposition on the charge of a star! My father compounded with my mother under the Dragon's tail, and my nativity was under Ursa Major, so that it follows, I am rough and lecherous. [Fut,] I should have been that I am, had the maidenl'est star in the firmament twinkled on my bastardizing. [Edgar-] (lines 118-133)

Edmund as an adherent of the "wisdom of nature" thinks of correspondences in nature, which figured so crucially in his father's speech, in terms of "an enforced obedience of planetary influence". It is absurd to make sudden changes in the cosmos responsible for human adversities and mishaps. For Edmund the interrelated cosmological, natural and political orders—as the cornerstone of Elizabethan thinking—are merely metaphysical explanations which are of no relevance to him.

For him nature constitutes "a closed system", in which there are only "connections of material cause and effect" (Danby (1958: 38)). He "belongs to the new age of scientific inquiry and industrial development ... an age of competition, suspicion, glory" (Danby (1958: 46)), which sees nature as a resource to be exploited rather than something normative for human being.

But when Edmund in Act I, Scene 2 speaks of nature in his first soliloquy—which at the same time marks his first appearance on the stage—he equally associates nature with his sheer will to power.

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Edmund Thou, Nature, art my goddess, to thy law My services are bound. Wherefore should I Stand in the plague of custom, and permit The curiosity of nations to deprive me, For that I am some twelve or fourteen moonshines Lag of a brother? Why bastard? Wherefore base? When my dimensions are as well compact, My mind as generous, and my shape as true, As honest madam's issue? Why brand they us With base? with baseness? bastardy? base, base? Who, in the lusty stealth of nature, take More composition, and fierce quality, Than doth within a dull, stale, tired bed Go to th' creating a whole tribe of fops, Got 'tween asleep and wake? Well, then, Legitimate Edgar, I must have your land. Our father's love is to the bastard Edmund As to th' legitimate. Fine word, "legitimate"! Well, my legitimate, if this letter speed And my invention thrive, Edmund the base Shall [top] th' legitimate. I grow; I prosper: Now, gods, stand up for bastards! (lines 1-22)

# 2. Parallels to Edmund's and Gloucester's Notion of Nature in Jane Smiley's A Thousand Acres

Both Edmund's attitude towards nature as something external, something that can be examined, investigated and ultimately be exploited on the one, as well as his appropriation of the term nature as a definition of his own deeply egotistical purposes on the other hand, have a close resemblance to the notion of nature which Larry Cook in *A Thousand Acres* exhibits. Larry Cook equally betrays a similar character trait as Edmund's will to power in his "all-encompassing thrift" (*A Thousand Acres*: 45) and his wish to spread himself over the landscape of Zebulon County by acquiring more and more land.

Gloucester's attitude towards nature as something normative for humans and something in which they are embedded, however, finds a marked reflection in *A Thousand Acres* in Jess's distinguished ecologic awareness and his ideas of organic farming.

This is quite astonishing at first sight, since the parallels between King Lear and Larry Cook on the one, and Edmund and Jess Clark on the other hand, would—if one is to follow my argumentation above—certainly be much more lucid.

#### a. Jane Smiley's Re-Writing of Shakespearean Characters

I would argue, however, that Jane Smiley's "re-writing" of Edmund as the "ecologic hero" Jess, as well as that of King Lear, which in the figure of Larry Cook is depicted as an utterly exploitative character, has to be seen as only one modification within her whole concept of re-constructing the Shakespearean characters in *King Lear*. Directing the reader's sympathy in *A Thousand Acres* away from the "good" characters, while at the same time endeavouring to inscribe sympathetic character traits in the formerly "bad" characters in *King Lear*, can thus be understood as one essential strategy within Jane Smiley's interesting conception.

But to analyse the whole process of how Jane Smiley has transformed and re-constructed the Shakespearean characters in *A Thousand Acres* is well beyond the scope of this paper and therefore cannot be discussed here.

# **IV. Concluding Remarks**

The relationship between humans and their surrounding environment is—as Meeker (1980: 28–29) points out—undoubtedly an ancient theme in literature, which certainly goes further back than the mediaeval system of correspondences that we find in Shakespeare's *King Lear*.

Faced with the insights of ecology and the threat arising from an unprecedented massive degradation of the environment through ecocide, however, contemporary writers such as Jane Smiley in *A Thousand Acres* often find it necessary to make a new analysis of this relationship by showing how humans destroy their natural environment as well as other humans by succeeding in their ambitions to control nature.

But since this would be a far too harsh statement with which to end this paper, however, let me rather conclude the essay on a slightly jollier note.

While *A Thousand Acres* was Jane Smiley's Shakespearean tragedy, her latest novel *Moo*, which explores the working of a large midwestern agricultural college named Moo University as an academic microcosm of agricultural society in America, can be seen as her Shakespearean comedy. Although some of the ecological problems which she had considered in *A Thousand Acres* are also recurrent themes in her most recent novel, in *Moo* conflicts arising from the problematic relationship between humans, non-humans and the environment, such as the clandestine science experiment at the "Old Meats" designed to determine how big a hog will get if he is allowed to dedicate his entire life to just the consumption of food, do not lead to ecological disaster. On the contrary, at the end the world is restored to balance.

The exploration of the relationship between humans and nature can in the works of such writers as Jane Smiley therefore likewise be seen as an *ongoing* theme—a theme that can, in spite of the seriousness of the ecological problems that humans are faced with at the end of the millennium, sometimes even be treated in a light-hearted manner.

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