Still Feeding the World? The Political Ecology of Canadian Prairie Farmers

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Abstract: This article examines how many Saskatchewan farmers came to think of themselves as independent farmer-entrepreneurs who had to control nature and the market by using the latest agricultural technology and by becoming astute players on the world market. The article draws on Innis's staple theory to understand how large-scale export agriculture structures farmers' "fields of possible action" in a thoroughly intervened and produced nature and on Foucault's writings on neoliberal governance to comprehend their subjective responses. Beyond the classical enquiry of anthropological political economy, this article focuses on the relationship of farmers to nature as an intensely political one.

Keywords: agriculture, Saskatchewan, neo-liberalism, political ecology

Résumé : Cet présent article examine la façon dont les agriculteurs de la Saskatchewan se sont identifiés au modèle de l'agriculteur entrepreneur qui contrôle la nature et le marché en utilisant une technologie de pointe et en devenant un joueur astucieux sur le marché mondial. L'article se réfère à la théorie des produits de première nécessité (staples) de Innis pour comprendre la façon dont l'agriculture d'exportation à grande échelle a structuré le champ des possibles des agriculteurs des prairies dans un environnement naturel profondément transformé. Il s'inspire aussi des écrits de Foucault sur la gouvernance néolibérale pour analyser leurs réactions subjectives. Cet article va au-delà de la démarche classique de l'anthropologie politique et économique en envisageant les relations des agriculteurs à la nature comme des relations éminemment politiques.

Mots-clés : Agriculture, Saskatchewan, néolibéralisme, écologie politique

According to a recent FAO study sketching out the challenges and priorities of global farming systems, the evolution of farming systems often follows a recognizable path: specialization, greater use of external inputs, mechanization, intensification of production, export orientation and land aggregation appear as the future for the development of agricultural systems worldwide (Dixon et al. 2001:8). In this article, I will look at farmers who followed that path and who have adopted all of these practices. Their example illustrates both the seduction and the destructiveness of this model.

For most farmers in the world, farmers on the cereal plains of Saskatchewan present an image of prosperity and success. Their farms of an average of 500 hectares (1,300 acres) seem unimaginably big. Saskatchewan government publications advertise the province as the centre for biotechnology and high-tech agriculture. Saskatchewan farmers intensified production per acre by introducing zero till techniques. They grow speciality crops on a contract basis for agricultural corporations and most farmers growing canola now cultivate herbicide-tolerant varieties. All of these innovations led to a considerable increase in production per farm. However for a long time this did not translate into a simultaneous increase in farmers' incomes as large agro-food corporations skimmed off most of the profits. In fact, over the last 20 years their incomes had gone down steadily until the sudden rise in prices in 2007 and the equally sudden drop in October 2008.

On the basis of my fieldwork in the apex of the dry Palliser Triangle, about 50 km southeast of Saskatoon, I will examine how many Saskatchewan farmers came to think of themselves as farmer-entrepreneurs who had to control nature by using the latest agricultural technology and learning to "play the world-market." At the same time, they allowed the dismantling of collective structures of market protection. Why did prairie farmers respond this way since it made their livelihoods ever more

tenuous? I will try to answer this question in a number of ways. I will refer to Innis's staples theory (Innis 1956, 1950) for understanding the impact of large scale export agriculture on the social and economic structures of the prairies and how it "structures the fields of possible action" (Wolf 1990:587; Foucault 1982:224) of prairie farmers. I will also turn to Foucault's recently published writings on neo-liberal governance (Foucault 2004) to comprehend the more subjective responses farmers have to these conditions of possibility. This will lead us to assess both the material conditions driving the ongoing crisis in prairie farming and the particular form response or resistance has taken.

We are posing a classical problem of anthropological political economy, as William Roseberry (2002:61) defined it,[1] when we enquire into how prairie farmers came to constitute themselves as competitive and competing individuals who subject themselves to what they consider to be the law of the market. In this paper, however, I want to show that this analysis is incomplete if it does not take into account the relationship of farmers to nature as intensely political. After an introductory section that sets the argument in the theoretical frame of political ecology, I turn to the remembered history of the prairies. I show how current neo-liberal governmentality was preceded by an earlier kind of settler subjectivity emphasizing collective action and claiming state intervention that is quite different from the images contemporary informants hold of their past. I then present material from informants and suggest that it is precisely the marrying of reinterpretations of the past as an individual struggle to current neo-liberal ideologies of the person that effectively shapes their form of agency when faced with current conditions. I also show that agro-business has reinforced the equation of Innis's staples theory, creating forms of dependency and precariousness that now rely on the intermediary of a thoroughly intervened and produced nature while retaining the image of a war on nature. I want to show not only how Canadian prairie farmers mould their natural environment according to the requirements of productivism, but also how they are, as a consequence, subjected to the social and natural environment that they have themselves transformed. In the last part of this article, I want to follow up one of the surprises of my fieldwork and try to explain why conventional farmers who gave up chemical use because they could no longer pay the bills and who as a consequence became organic producers, developed different relations to nature and a new critical view of the political and economic system. Why is it that farmers who had to withdraw from high-tech farming and who chose, mostly out of necessity, to cultivate in an organic way developed radically different worldviews and social and political priorities? To what extent is it the agricultural practice that shapes political worldviews and attitudes to nature or conversely how do dominant ideological discourses about competition, innovation and risk motivate farmers in the choices they make and the risks they take?

Fieldwork for this study has been carried out since 2002 among friends, relatives and neighbours of our family farm of 2600 acres near Colonsay, Saskatchewan. The Saskatchewan study is part of a larger multi-sited fieldwork on "Food, Property and Power: Technology and the Policy of Food Production in the International Arena and in the Everyday of Food Producers" that I am currently undertaking in my research laboratory in Paris, France.

The material used in this study is based on direct observations of farming practices, lengthy informal discussions with farmers, farmers' union leaders, Wheat Board representatives, crop insurance representatives, grain handlers and lawyers, and on taped interviews with 30 grain farming families, mostly husbands and wives together.[2] In addition to oral material, I analyzed government publications, flyers from chemical companies, trade union publications and newspapers. I took part in the crop production week, went to trade union conventions and followed a Saskatchewan farmer to the Supreme Court of Canada (Müller 2006). On all the grain farms I visited, there was a clear gendered division of labour. Men seeded the crop and did all other tasks related to growing and harvesting and they maintained the farm machinery. Women were responsible for preparing food for the family and farm helpers. They also cultivated garden vegetables for subsistence consumption. They often kept the farm accounts and were consulted by their husbands on marketing decisions. It was, in most cases, their income from off-farm work that provided for the needs of family consumption, recreation and education of the children. If their off-farm work permitted, they helped out on the fields harrowing and packing after seeding, and, especially at harvest time, they drove the grain truck and sometimes the combine.

The Political Ecology of Canadian Prairie Farmers

Now I possess and am possessed of the land where I would be,
And the curve of half earth's generous breast shall soothe and ravish me.

—Rudyard Kipling 1924

Political ecology in the French tradition brings the profoundly political nature of the natural order to the forefront (Latour 1999:45). French political ecologists confront the significance of conceptions of nature and humanity for the distribution of power in a community. Every conception of nature has implications for how control is exercised over nonhumans and humans alike (Whiteside 2002:11). Inherent in this thinking is a critique of productivism in capitalist and socialist systems. Productivism describes the orientation of a society against nature: one that tries, by always increasing production and consumption, to negate its links to nature, to free itself from fears of scarcity and from destructive elements (Moscovici 1972:369). In society's quest for higher levels of material satisfaction, individuals are moulded as productivity requires (Moscovici 1976:102). I want to show here not only how Canadian prairie farmers mould their natural environment according to the requirements of productivism, but also how they are, as a consequence, subjected to the social and natural environment that they have transformed.

I am drawing here on Ingold's concept of dwelling that expresses how humans' perception of the environment is shaped by how they live in it and interact with it on an everyday basis. Ingold argues that destructive human behaviour has its source in the very alienation of humanity from the world. The very notions of construction and control[3] are grounded in the discourse of intervention. They presume a world already constituted, through the action of natural forces, which then becomes the object of human interest and concern (Ingold 2000:215). It is not a world of which humans themselves are conceived to be a part. He assumes that, currently, a global ontology of detachment dominates the local ontology of engagement (Ingold 2000:216). He expresses this opposition in the two concepts of land and landscape: land as quantitative and homogeneous and landscape as qualitative and heterogeneous. Ingold moves beyond the opposition between the naturalistic point of view of the landscape as a neutral external backdrop of human activity and the culturalistic view that the landscape is a particular cognitive or symbolic ordering of space. Instead, in the dwelling perspective, the landscape is the enduring record of the lives and works of past generations who engage perpetually with the environment that is itself fundamentally historical and in process (Ingold 2000:189). Assuming the dwelling perspective, it becomes possible to show how an organic farming practice for instance, produces not only a different perception of nature but also a changed political awareness, and why the farmers, once they acquire a new modesty and sensitivity towards the natural environment they work with, seem to acquire a temporary respite from the logic of capitalist production that allows them also to think in a different way.

In the reverse, the landscape that the farmer-entrepreneur contributed to creating by practicing monoculture, by using sophisticated weed control with chemicals and by enlarging the areas cultivated, seems to compel him to use more and more sophisticated means of control like global positioning systems (GPS) for efficient chemical application and biotechnology for becoming more independent of seasonal constraints. The heterogeneity of the *landscape* becomes abstracted to the quantitative category of the *land*, an asset that has to be increased to allow for "economies of scale." The figure of the farmer-entrepreneur dominates in Canadian government publications. For example, the consultation for the Agricultural Policy Framework suggests that farmers need "strategic management skills" to run their farms as "businesses" that require constant renewal (Agriculture and Agri-Food Canada 2002). Permanent growth and ever-tighter organization of farms emulate a U.S.-American model: "the people who have transformed American agriculture have been entrepreneurs. They have believed in themselves, and they have been willing to take great risks, albeit risks they have calculated with great precision" (Hart 2005:20). Hart contends that modern family farms need to become integrated into tightly orchestrated food-supply chains in order to thrive and these complex new organizations of large-scale production require managerial skills of the highest order. According to Hart, this trend is not only inevitable, it is beneficial because it produces the food American consumers want to buy at prices they can afford (Hart 2005:17). The farmer-entrepreneur is a rational individualist willing to take risks and able to control them. The spirit of enterprise, however, also has a moral dimension, supposedly animating everything that is "unique and honourable" about being a farmer (Dudley 1994:148). "Learning to farm is a lesson in the basic principles of a capitalist society. Not only is the market figured as inherently just—'if you work, you get reward'—individual moral character is built by internalizing this logic...it is this inner directed drive that makes being a farmer a

rewarding occupation, although by no means an easy one" (Dudley 1994:147).

I want to show to what extent the effort of prairie farmers to comply with this ideal of rationality and control has in itself strongly irrational traits. The objective of perfect control over farming activities, which depends on the weather and numerous other natural conditions, and over the opacities of an increasingly open global market, is impossible to achieve. I want to show that the apparent rationalization of the life-world of prairie farmers following the model of the farmer-entrepreneur has in fact led to the emergence of new beliefs and prophecies that are inherent in the rationale of market economics. Long ago, Weber apprehended that the rational way of life that built this "powerful cosmos of the modern economic order" which now determines the way of life of each person that gets into its ambit would end in the emergence of new prophecies or a kind of compulsive self-centredness (Weber 1973:187-188). I want to demonstrate to what extent Weber's apprehensions have been realized on the prairies.

Two of the key economic concepts that haunt prairie farmers and cement their feelings of guilt and inadequacy are "comparative advantage" and "flexibility." The theory of comparative advantage, developed in the beginning of the 19th century by David Ricardo and others, stipulated that because Canada could produce resources like fur, fish, wheat and forests comparatively more cheaply than manufactured goods, while in Britain the comparative cost ratios were reversed, the greatest gains to trade would derive from Canada specializing in staples and Britain in industrial goods (Barnes 2005). This viewpoint resulted in the Canadian specialization in the production of staples for export to the metropolis and still dominates actual Canadian government publications. It implies that it is the responsibility of individual farmer-entrepreneurs to grasp the opportunity to produce certain products that they can produce more cheaply than others and to respond flexibly to changing patterns of demand, creatively exploiting niche markets and embracing new technologies.

This theory was criticized by Innis in the 1930s. Innis thought Ricardo's theory not only represented the imposition of a colonial self-justificatory intellectual scheme on the ex-colony but the particular international division of labour it prescribed, first with Europe and then with the U.S., maintained exactly the old asymmetric colonial trade relations (Innis 1956:3). In contrast to orthodox trade theory, Innis argued that there were no advantages, comparative or otherwise, to specializing in staples. Staples production resulted in only halting and incomplete development, enmeshing regions and nations in a "staples trap" (Innis 1950:5-6). In the prairies, the huge private and public investments in infrastructure, railways, grain-elevators and grid roads shaped the landscape permanently but left little room for alternative developments. The result, Barnes pointed out, using Innis's terminology, is that staples-producing regions and nations became dependent on more powerful foreign metropolitan centres and consequently remained on the global economic margin (Barnes 2005).

At the basis of Innis's alternative staples model is a cyclonic metaphor. Staples producing areas are "storm centres to the modern international economy" (Barnes 2005). Innis uses the meteorological metaphor to represent both the whirlwind ferocity of capitalist accumulation at resource sites and the equally ferocious decline and destruction that follows:

> Because the metropolises of capitalism require a continual source of raw materials, there is an incessant search for new and profitable sources of raw materials. Blowing across the economic landscape, global-cyclonic winds touch down at a few sites—single industry towns—to create in a burst of frenetic energy the infrastructure and wherewithal of resource production. But as implied by the central metaphor, stability is always precarious and temporary, and sooner rather than later, "all that is solid melts into air"...Concomitantly there is massive disruption of peoples' lives and livelihoods. [Barnes 2005:3]

Innis assumes that each staple embodies a set of spatial and temporal imperatives ("space-time biases") that are manifest once staples extraction and trade begin. Just as Marx pulls away the veil of the commodity to expose its social constituents, Innis carries out the same manoeuvre to uncover the multifarious and twisted threads of far-reaching geography and history linked to staples extraction and trade (Barnes 2005). For Saskatchewan farmers, these threads are obscured while they attempt to react to falling world grain prices and sudden spikes in prices—Saskatchewan is exporting at least 70% of its agriculture production (in value terms)—by enlarging the area cultivated and by investing into ever-larger machinery. They observe the grain harvest in Argentina, the weather patterns in China and the outcome of trade talks in Hong Kong with the obscure premonition that all these events are linked to the success or failure of their farming operations. They wonder whether the sudden rise in prices on the Winnipeg grain exchange are a function of increased demand for their products or the result of investment funds transferring their assets from shares to agricultural commodities.

Because they have internalized the identity of the farmer-entrepreneur they are set to confront these obscure forces of the market alone. From being inseparably interwoven with the traditional conditions of life, family and neighbourhood, craftsmanship and religion, village and church, the farmers and their land become inseparably connected to market and capital, technology and innovation, corporations and banks. Polanyi once called the marketization of land and labour the most absurd undertaking because it submits social institutions to the requirements of the market mechanism (Polanyi 1990:243-244).

Michel Foucault, analyzing Anglo-Saxon neo-liberalism, goes further showing that liberalism is in fact a way of being and of thinking and the source of a new utopian thinking about society (Foucault 2004:224). The central figure in neo-liberal thinking is *Homo oeconomicus*, though not *Homo oeconomicus* as partners in exchange, but as entrepreneurs, as entrepreneurs of themselves (Foucault 2004:232). Their work competence is the human capital they invest in and dispose of to obtain revenue (Foucault 2004:230). The entrepreneurs are thus responsible for themselves, for their education and potential for innovation, and they are in competition with all other entrepreneurs and thus with all the other individuals in society. As a consequence, the economic form of the market is generalized even beyond forms of monetary exchange. The market form, in terms of offer and demand, functions like a principle of intelligibility that spells out the social relations and the behaviour of individuals (Foucault 2004:249). The generalization of the figure of the farmer-entrepreneur also generalizes the principle of competition among prairie farmers and their isolation when confronted with the mechanisms of the market. As we will see below, it throws individuals back on to their own resources, encourages a feeling of guilt and inadequacy and makes farmers take investment risks largely beyond their financial means.

The Myth of the Self-sustaining Pioneer

The prairie is broad, unmolested,
It points to the high and sublime;
Where only the sky is above you,
And only the distance in view,
With no one to jostle or shove you—
It's there a man learns to be true!

—Robert Stead 1910

To have arrived empty-handed in an empty land, to have populated it, to have made it fertile and to have civilized it is the basis for the Saskatchewan founding myth. The settlers saw the prairies as unfinished—as God's raw material (Boyens 2001:23)—that they were called on to give shape and meaning to. For a white Saskatchewan farmer, history starts at the end of the 19th century with the arrival of the first settlers. It was part of the self-perception of many farmers I spoke to that their parents or grandparents had homesteaded in the area and had thus been the first people there. They marked the land with their presence, broke the prairie soil and sometimes even gave their name to the place. In that way, Bill Ritter, a farmer in Colonsay, could take pride that he lived in the house his grandfather built on the road that bears his name. The heritage museums in Saskatoon and Moose Jaw are full of objects from settlement times; they celebrate the schools settlers built, the railway stations and post offices. What a European would consider a modern house from the beginning of the 20th century is considered here a building of a truly venerable age. The myth of the self-sustaining pioneer emphasizes the effort of the individual and silences the fact that the settlements were masterminded and planned by the Canadian Dominion Government eager to populate the prairies and to remove them from U.S.-American territorial ambitions.

I do not intend to give a full account of the historical development of the Canadian West here. This has been done extensively in other places (Adams 1989; Conway 1994; Fowke 1957; Gray 1978; Potyondi 1995). What I want to focus on here is the representation of the figure of the pioneer in the contemporary thinking of prairie farmers and the extent to which it differs from historical accounts. I will critically examine three elements of the myth of the self-sustaining pioneer: the arrival in an empty land; the lonely fight with nature; and, the need to create home, clothing and food from nothing.

Historical and ecological developments before the settlers arrived are mostly disregarded in popular accounts of settlement times. This imagined historical void applies in two ways to the history of the prairies and its inhabitants: it erases the history of First Nations Peoples and it also erases the family histories of the settlers before their arrival in Canada. Settlers were not officially encouraged to hold on to their European past but to merge with the new Canadian society, forgetting their languages and traditions. Many farmers I spoke to have an extremely vague memory of where their ancestors actually came from and why they came to Saskatchewan only two or three generations ago.

The last 100 years that white farmers of Saskatchewan experience as "history" inscribe themselves onto a much longer presence of humans on the prairies that shaped not only prairie ecology but also the form that economic exploitation took. First Nations Peoples on the

prairies had actively intervened in prairie ecology by lighting fires that moved large buffalo herds off their course and attracted them to the fresh soft prairie grass that grows after a fire. Buffalo thrived in such a regime to the point of largely outnumbering deer and other animals and of feeding a large population of predators. This equilibrium changed when buffalo hides became a sought-after commodity, a staple in Innis' sense, first on the U.S.-American market and later for the Hudson Bay Company that had the monopoly on the trade in hides. First Nations Peoples started to hunt more buffalo than they needed for their own consumption and Métis groups, uninhibited by tribal territorial boundaries and organized in paramilitary fashion, started to systematically kill thousands of buffalo (Potyondi 1995). Once buffalo herds were virtually gone by 1879-80, a new boom trade in buffalo bones began that was soon to be replaced by a cattle ranching boom mostly carried out by ranchers from the north of the U.S. who had overgrazed their own lands. First Nations Peoples and Métis lost their basis for subsistence, and the First Nations Peoples were relegated into the misery of reserves. The 19th century had thus been characterized by economic cycles of boom and bust that set the stage for the arrival of the settlers. The prairies were indeed emptied of their original human and animal populations—with the exception of a few cattle ranchers with big free roaming herds—when the Canadian Dominion Government finally managed to attract the first settlers to the area east of Saskatoon at the turn of the century.

The prairies were emptied but they were not disorganized. Before the first settlers arrived, the land had been measured and divided into neat square sections with an identification rod buried in the corner of each quarter section. Railways were built and townships and railway stations planned at a distance of every 15 miles. The railways gave them names in alphabetical order: Allan was preceded by Watrous, Xena, Young and Zelma, and followed by Bradwell and Clavet. Settlers had to choose their land on a map at the land registry and could then set out to claim it. For just $10, everyone 21 years old or older could lay claim to a quarter section, or 160 acres (Boyens 2001:26). The settlers could only guess from hearsay what the land they were going to claim would look like. Disappointments were frequent and land was given back to the authorities if it was no good for settlement. Settlement was thus not spontaneous at all. Conditions were planned and controlled by the Canadian Dominion government that was seeking to attract English-speaking settlers from Britain or the U.S. Settlers who were assisted by government authorities received a determinate number of nails, seeds of plants deemed fit for cultivation in the area and agricultural equipment. The settler was under obligation to break a certain portion of his land in the first season upon arrival and more in the next two years and to hold out on his land for at least three seasons if he wanted to keep the claim. In Saskatchewan, in the period from 1911 to 1931, approximately 57%—nearly six of ten—homesteaders abandoned their claims before securing title (Fowke 1957:285).

The first settlers were idealized by later generations as self-reliant, capable of huge amounts of work in order to fight adversity and capable of making wealth grow out of nothing. The most striking monument to labour as a solitary fight that I came across in Saskatchewan, is the rump of the ship *Dontianen* that a prairie farmer and Scandinavian immigrant built in the middle of the prairies during the depression years. It has become the pride of the open-air pioneer museum in Moose Jaw, where it is exhibited. The farmer made every single nail himself, spent endless hours carving the wood and forging the boiler. The man, who had been declared a lunatic by his contemporaries, became a hero of work for later generations; a symbol of the human capacity to overcome any adversity with a strong will.[4] The memorial plaque reads: "Monument of labour. To all early pioneers to whom we owe so much." The work he accomplished was admired as a purpose in itself, while the ludicrousness of the aim of building a ship capable of crossing the ocean in the middle of the prairies was forgotten.

What was also quickly forgotten by later generations was that their forefathers had come to Saskatchewan, for the most part, not with empty hands but carrying with them all their belongings and savings. Not even when they settled on their land were the early settlers autonomous or self-sustaining. What they built was on the basis and according to the model of what they had been accustomed to in Europe. Fowke, writing ironically about the image of the "self-sustaining settler," writes: "the pioneer settler is ordinarily verbally pictured as living with his numerous sturdy progeny in a rough-hewn log-cabin, with rude, home-made furniture, tilling his 'home-made' clearings with crude, home-made implements, and eating the rough but wholesome fare extracted from the land" (Fowke 1957:14). In reality though, "settlers took with them to the frontier the capital-goods, products of the world's most advanced arts of the day...The frontier settler did not attain self-sufficiency upon arrival at his farm, nor, indeed, at any time thereafter" (Fowke 1957:14, 17).

Settlers who came without sufficient capital relied heavily on others for help and support. The town chronicles of Allan (Allan District History Book Committee 1981), Colonsay and Meacham (Celebrate Saskatchewan

Committee 1980) abound with histories of mutual help and support including the creation of associations and religious societies as soon as the first settlers arrived. These creations were not entirely spontaneous either but followed an established pattern. Settlers re-established associations on the basis of their religious beliefs and schools were founded following regulations laid out by the state for the local school board. In most settlements, shops sprung up almost immediately where settlers could buy the goods they were used to back in Europe. The settler was, right from the start, enmeshed in the commercial system of his time, facing, at the turn of the 20th century, powerful railroads and grain companies that had near monopolies and dictated prices, dockage and grades while asking for exorbitant prices for their inputs.

The first farmers not only broke the prairies but they also took on the monopoly granted to the Canadian Pacific Railway by the federal government and founded cooperatives to counter the marketing power of the private grain companies. As wheat exports were seen to be one of the motors of growth of the Canadian economy they were able to convince the government to protect their interests. There used to be a strong socialist tradition among farmers on the prairies who challenged the liberal economic philosophy of the turn of the century to obtain from the state the Crow's Nest Pass Agreement in 1897. This established the principle of statutory regulation of freight rates on the movement of grains and significantly reduced transportation costs for farmers (Conway 1994:47). During the First World War, prairie farmers envisaged the Canadian plains as the breadbasket of the world and they thrived thanks to high wheat prices obtained through state marketing mechanisms and wartime shortages from 1916 to 1920. The wheat boom continued sporadically throughout the 1920s and led to the mechanization of prairie agriculture (Conway 1994:65). The relative prosperity, however, collapsed like a house of cards at the end of the 1920s when the Great Depression set in. The cyclone of the staples economy hit the prairies hard. Export prices for farm products fell by a full 70%. Prairie farmers, often heavily indebted because of their accelerated mechanization, suffered a 94% decline in net money income from 1929 to 1933 (Conway 1994:99). Thousands went bankrupt and left their farms. The debt problem was compounded by drought and heavy winds in the 1930s, which made the topsoil of whole crop districts blow away. It became obvious that, on the dry plains of Saskatchewan, the farming methods of deep ploughing imported from humid agricultural regions in Europe and the adoption of the practice of summer fallowing to save moisture were, in fact, disastrous.

The federal government felt compelled in 1935 to enact the Prairie Farm Rehabilitation Act which included a program to teach hundreds of thousand prairie farmers the right way to farm (Gray 1978:xi). The intense cooperation at that time between public plant breeders, agricultural technicians, researchers and farmers to stop erosion of the land has inscribed, in the collective memory, a view of public agricultural research as largely beneficial if not indispensable for the success of the farming operation. It also fostered the conviction that the most difficult economic or ecological problems can be overcome through scientific progress. Western farmers also finally obtained from the government the reinstatement of the single desk marketing mechanism of the Canadian Wheat Board, which was given the monopoly in the commercialization of western Canadian wheat and barley, and for a time oats, inside and outside Canada from 1943 onwards.

The cycle of boom and bust continued at a somewhat slower pace into the 1970s, which resulted in farms growing progressively bigger and more and more mechanized. In the 1980s the disengagement of the state from agriculture accelerated and in 1988 the signing of CUSTA (Canada–U.S. Trade Agreement) made the Canadian agricultural sector more attractive to U.S. corporations. The 1990s have seen a concentration of market power in the hands of few agro-food corporations which were able, thanks to their near monopolies, to cream off potential profits from farmers' incomes by raising their input prices[5] when the market looked favourable for the farmer. In the 1990s, market prices for grain seemed to have been decoupled from actual demand. Grain prices declined worldwide while world grain stocks hit an unprecedented low. Prices that farmers received for their products declined between 1996 and 2000 by 4.6%, while prices they paid for expenses such as fertilizer and fuel increased between 1996 and 2000 by 10%.[6]

At the same time, state regulations for grain transport, the so-called Crow Rate, disappeared in 1995 resulting in drastically increased transport prices and leaving the structure of the system to be determined by the railways. Public sector seed development collapsed: the personnel of state-owned experimental farms were laid off while enormous amounts of subsidies were given to the private sector for the development of new genetically modified (GM) varieties. A socialist worldview ceased to be appealing to the farmers in the 1990s. Members lost interest in and then control of the old cooperatives that followed the "iron law of transformation" (Oppenheimer 1896) by transforming into shareholding companies destined to make a profit, a development which corresponded to the interests of the majority of the aging membership.

In the second half of the 1990s, farmer members allowed the marketing cooperatives, like the Saskatchewan Wheat Pool and the United Grain Growers, to go private and to form alliances with multinational grain companies such as Archer Daniel Midlands and Cargill. By 1995 when the big cooperative Saskatchewan Wheat Pool entered the stock market, its cooperative structures had long ceased to be regarded by the farmer members as something they had control over. The board of directors had become detached from the membership, pursuing an aggressive strategy of expansion and arguing that it would increase competitiveness and efficiency. As a consequence, hundreds of grain elevators and the railway branch-lines that connected to them were shut down. The colourful wooden elevators that used to mark the landscape of Saskatchewan were destroyed immediately to prevent groups of farmers or the municipalities from changing their minds, taking them over and running them themselves. Big concrete terminals were built in spots that suited the companies and the railways. The farmers are now obliged to ship their grain by truck over long distances (sometimes over 50 miles) to the next terminal. Transportation fees have thus soared in farmers' budgets. The only collective institution that remains is the Canadian Wheat Board, which is commercializing western Canadian wheat and barley all over the world and is now under constant attack from the U.S. which files lawsuit after lawsuit against it in the arbitration committee of the WTO. The current Conservative government of Canada declared that abolishing the single-desk marketing of grain through the Wheat Board was one of its priorities.

The politics that the pioneers managed to impose on the government and corporations were, in later years and especially in the 1990s, branded by the Ministry of Agriculture as obstacles to the freedom of enterprise for which the farmers had at last become ready. In official government publications, the farmer was often described as an entrepreneur who managed his business successfully using all the tools available on the open market including trade in future funds. Competition and the free market were presented as the very basis of personal freedom and wealth creation.

What personal strategies did farmers in Saskatchewan develop to react to market deregulation and also, to what extent were they active players in bringing about this evolution? Why did they give up the cooperative structures they had fought for? I will focus here on three attitudes prevalent among many farmers I talked to: their particular appreciation of freedom, their belief in progress and their mechanistic attitude to nature.

Freedom, Progress and the Engineering of Nature

> *I load a 1000 tons and what do I get? Another year older and deeper in debt. Cargill don't you call me, because I can't go! I owe my soul to the Agricore!*
>
> *—Ken Eshpeter 2006*[7]

Farming the prairies means being confronted with the extremes of nature: blizzards, tornados, hail storms and drought. The weather can change suddenly passing from soaring heat to severe frost in August. In spring, heavy winds can carry away the bare topsoil while sudden rainshowers fill the ditches with silt. Saskatchewan farmers have thus generally regarded their work as a fight against nature for which all the achievements of human inventiveness and science should be mobilized. No wild species or land varieties of the main cash crops exist in the prairies and as a consequence, agricultural biodiversity is extremely low. The main cash crops were imported from other parts of the world and adapted by government-funded agricultural research stations and the farmers themselves to the climatic conditions of the prairies. The introduction of agricultural chemicals for weed and pest control has revolutionized prairie agriculture and facilitated the work of the farmer. High yielding varieties that respond to the input of fertilizers and are resistant to herbicides and pesticides are commercialized by the main agro-chemical companies (Monsanto, Syngenta, Dow Crop Sciences and Bayer) that also sell the chemicals. In their advertisements, they praise the ease with which their products allow the farmer to achieve, thanks to the highest level of technology, a clean homogeneous field in a safe, green fertile landscape. A neat and tidy field and an immaculate lawn around the farmhouse are the status symbols of a successful farmer as they convey the impression of control over invasive weeds and menacing insects.

Most farmers I spoke to valued their professional freedom and their sense that "nobody can tell you what to do." Their grandparents and great grandparents, so they had been told, moved out to the prairies to escape oppression and to build better lives. As Bill Siegler, a young farmer, phrased it, "when I am driving down the roads around here I have the feeling that they are mine...I like being my own boss even if that means I earn less money. I prefer not to take orders from people. Watch the clock and count the time makes no sense to me." The expression "my own boss" is highly symbolic not only of the values of the farmers but of the contradictory tensions inherent in their position in the social structure. As Mooney argued, even when the farmers are free of the

constraints imposed by wage labour, the presumed independence wrought by the unity of labour, management and capital in one person (or more precisely in one household) is constrained by the ideological hegemony of the larger capitalist social and economic system. The meaning of the expression derives from the farmers' importation of definitions of work from a society in which most production takes place under the close scrutiny and the physical proximity of bosses (Mooney 1988:2). As a result, the farmers feel "free" and compelled at the same time to follow a tougher work discipline than what an external boss would be able to impose.

The range of meanings of what freedom actually signified for the farmers I spoke to was large. In the discourses of some of them, it corresponded to the ideology of market liberalism advanced in government publications and included ideas of self-employment, absence of state regulation and free marketing of goods. Other farmers saw control of corporate power, orderly marketing of grain through the Canadian Wheat Board and secure profit margins for their products as indispensable for maintaining what they called individual freedom or independence. The conception most of them shared, however, was that the amount of freedom they experienced was ultimately a question of money and the result of their individual choices: way of life; production methods; investments in farming technology; how and when to sell their produce; and, the choices they made on election day. The liberal agricultural agenda based its legitimacy on the farmers' conviction that the success or failure of their farming operation was a matter of the right choices, of their willingness to work hard and to embrace wholeheartedly the achievements of technological progress. I will show, in what follows, the strategies Saskatchewan farmers pursued to fulfill the dominant paradigm of individual freedom and wealth creation.

Bill Siegler farmed 13 quarters (2,080 acres) of land, seven of them rented, growing canola, flax, mustard, wheat, barley, peas and lentils with continuous cropping and zero tillage techniques. After years of travelling and jobs on construction sites, he returned to Saskatchewan with his Australian wife because life was cheaper there and offered him more comfort and opportunities. He was one of the few farmers I spoke to who was actually optimistic about his economic situation. To pay for the land he bought, he put in an impressive number of working hours, starting work at 4 o'clock in the morning custom spraying for other farmers and working on his own fields until late at night. His wife also worked full-time as a cancer researcher. They hired childcare help in the summer and hardly managed to see one another except in the winter months.

Siegler was convinced that farming techniques had been greatly improved in the previous ten years with the introduction of GM herbicide-resistant crops and the use of glyphosate herbicides to dry out the crops before harvest and to "clean" the fields of weeds before seeding. He was unconcerned about the fact that the chemicals were not washed off the kernels before being harvested and entering the food chain. Siegler told me proudly that his father learned from him the new farming techniques that do not disturb the soil mechanically but use chemicals instead. He bought a high-clearance sprayer, together with his father, and new seeding equipment—investments that increased the heavy debt load he contracted to buy the land. When I interviewed him in 2003, Siegler had just signed a technology use agreement with the agrochemical company Monsanto to be allowed to seed their GM canola that is resistant to their powerful herbicide Roundup. According to the contract he was not allowed to reseed his GM canola harvest without paying a Technology Use Agreement (TUA) fee. He was persuaded, however, that Monsanto would not be able to police or even know about the cases in which the farmers reseed the canola without paying a fee:

> There are lots and lots of people out there that have grown Roundup-Ready [RR] canola and not paid TUAs. I just know it. The more farmers are unhappy with Monsanto and the TUA program the less they are likely to report their neighbour. There comes a point in time when it goes out of control. I don't think that Monsanto can get away with controlling the market and jacking up the price. Things have a way of looking after themselves. If you look in history there is always a competitor or some rule that has intervened. I don't have that fear. [Bill Siegler, farmer in Allan, July 1, 2003]

He trusted that the market would act as a regulatory principle and "take care" of distortions, excessive exploitation and crops that damage the environment. He was skeptical of all government interventions. He thought that subsidies were useless and was strongly opposed to any legislation labelling food containing GM ingredients. His trust in the market went together with the optimistic expectation that his "extremely poor farming situation," characterized in 2003 by drought and low prices, too much work and too little time for the family, would get better because otherwise he had "nothing to look forward to."

Growing a crop became, for Siegler, a matter of the optimal investment in and timing of "weed control," "nutrient programmes" and moisture. While he felt that he was perfectly able to control the first two elements, the third element continued to escape him in the dry plains

of Saskatchewan where a farmer has to grow a crop often with no more than 90 mm of rain. The mechanistic way of approaching agriculture in terms of input and output was thus constantly offset by the uncontrollable "natural element." Technological progress could not make up for this unpredictability.

When speaking about their investments, farmers constantly used the terms "hope" and "belief" that the coming year was bringing them "the bumper crop," the crop that would suddenly fill their money chests and allow them to pay off accumulated debts. Siegler actually achieved this feat in 2007. He brought in a bumper crop of mustard, sold it together with the mustard that he had accumulated over several years for the best price in years and paid back his loans.

Most farmers in Saskatchewan have enthusiastically adopted herbicide-tolerant canola that was resistant to either Roundup or Libertylink herbicides. It allowed them to have a more flexible cycle of crop production as they could spray herbicides whenever they wanted in the agricultural cycle. Magnan (2004) and Lewontin (2001) attribute the success of herbicide resistant crops to the increased incidence of off-farm work. "To the extent that RR [Roundup Ready] crops help to free farmers' time, they reinforce the exploitative structure of agriculture in which farmers—just to be able to put a crop into the ground—subsidize the cost of food production by working off-farm" (Magnan 2004:307).

The chemical glyphosate, the basic ingredient of Roundup, was relatively cheap because Monsanto no longer had a patent on it. Now canola plants with multiple resistances are emerging and threaten to become a weed difficult to control. Other weeds are becoming resistant to glyphosate too and there might be a link between the poisonous fungal disease *fusarium* and the overuse of glyphosate. Only ten years after the introduction of RR technology on the market, new problems are arising for farmers, especially since the Canadian Ministry of Agriculture in cooperation with Monsanto invested millions of dollars in the introduction of RR-wheat and authorized the cultivation of herbicide-tolerant alfalfa. Almost all farmers I spoke to opposed glyphosate-tolerant wheat as they had no cheap chemical available that would be able to contain RR-wheat volunteers (plants that sow themselves). However, Siegler was convinced that the market would also "look after GM wheat."

Nevertheless, among all the conventional farmers I talked to, the idea of progress was prevalent. It was part of their self-image that they had to outdo themselves every year, embrace new technologies and experiment with new crops that their neighbours did not have. They accepted large loans to buy bigger machinery and cultivate more and more acres that they rented or bought. Diaz and Stirling (2003) argued that the process of incorporation of modern technology into farm production had the purpose of increasing the profits and market share of corporations and allowing them to have control over decision-making processes. "By designing and commercializing complex agricultural inputs they take away from the people their capacity to know and control those inputs. The expected result is a farm family who will be eager to follow all the indications of the corporations to use, maintain and replace those inputs, in other words, passive producers eager to spend their money on products suggested by agribusiness" (Diaz and Stirling 2003:40).

Gary Silver, another farmer I talked to, allowed a fertility consultant to do experiments on his land testing GPS systems that would make a more focused application of chemicals possible. Silver grew up working the family farm of 800 acres together with his father and indebted himself heavily when he bought it in 1992 while also renting an additional 800 acres. His wife works off-farm as a music teacher. To pay back his debt, pay the rent and live cultivating only 1,600 acres—a rather small farm by Saskatchewan standards—Silver felt compelled to farm his land continuously every year without leaving it fallow between crop cycles. This farming method required new equipment as the soil had to be moved as little as possible to conserve moisture, and needed a heavy input of fertilizers, herbicides and pesticides. He invested heavily in new machinery and contracted new debt. To outdo himself every year, he tried new varieties of crops and fertilizers with different blends of nutrients. He is proud of having "tried everything" including the most recent agricultural technology. He explained his efforts to improve productivity as a desperate attempt to stay in control:

> You have to stay updated—you got to stay sharp. You either play the game seriously, or you get out. I love the job, but the politics stink, and the politics changes hourly, like which price you get at the farm gate, you know. It's not just the difference in the dollar, it's the policy in the U.S., the policy in Europe...Everything and anything really affects...It's all out of my control. I can't control it at all, so I guess I'm focusing on what I can control, and that is production. If I've got something to sell, then I am going to have an income. If I don't have something to sell, well, I guess I should do something else, you know. [Gary Silver, farmer in Colonsay, July 11, 2003]

Silver felt that Canada, and especially Saskatchewan, was a mere raw material producer, "an open pit mine" as

he phrased it, selling its production cheaply and buying expensive manufactured inputs mostly from abroad. He also felt at a disadvantage in comparison to U.S.-American and European farmers who received subsidies from their governments. He explained that this constellation forced him to try continually to make better deals and increase production, which ultimately leads to oversupply and depressed prices. In spite of all his efforts, he could hardly survive on his farm and was well aware that his family income was below the Canadian poverty line of CAN$30,000 for a family of four people. While he established a link between political decisions out of his control on the national and international level and his disheartening economic situation, he nevertheless concluded that the success or failure of his farming operation was ultimately of his own making and resulted from his own choices:

> It's weird math, because you start looking at how the accountants write things off and this is not that. We're below, we're below the poverty line I know that. The Canadian poverty line is about $30,000 for a family of four, and we basically have less than that to try and live on. But again, a lot of the reasons are from my own choice. We've decided to buy different equipment, you know, which makes you pay. We could farm with 30-year-old machinery and not have the payments and probably grow a similar crop but with a heavier workload and possibly a higher repair bill, so the costs change to different areas. [Gary Silver, July 11, 2003]

Silver tried to follow the advice of agricultural consultants and tax advisors to invest in new machinery, which would allow him to make certain deductions from his taxes. The financial result was, however, not as positive as he expected, even as he attempted to count the time saved by using new machinery against the financial burden of paying instalments and interest for it. The reality of what farmers entered into by abandoning all structures of regulation and the cooperative defence of their interests was dawning on Silver who then entered into contract farming for multinational corporations and subscribed to TUAs for being allowed to seed Monsanto's herbicide tolerant canola. His margin of choice about what input to use in his farming operation diminished and he was not allowed to keep the grain he harvested as seed. As he became more and more dependent on chemicals, the prices of these inputs went up squeezing his profit margin even further. As Silver put it, "they are following us down the chute."

Silver seemed surprised by his own conclusion as it patently contradicted his self-image of "being fairly on top of things." The certainty that he was at the forefront of technological progress was impossible to reconcile with the awareness that his farm was on the brink of bankruptcy. The feeling that big agro-chemical corporations led him like cattle down the chute was in fundamental contradiction with the theoretical freedom of enterprise for farmers he believed in:

> This is really odd, but you know what? You can still use your own seed and grow it on your own farm. And you're welcome to go market it yourself. You know you could process it out in your shop. You could sell it around the world. And there's not a lot of restrictions on it. There's not really a whole lot on the family farm where we couldn't just process it, make it into bread. Sell the bread. So you have options if you want to. But it becomes a lack of capital. [Gary Silver, July 11, 2003]

As if to remind himself of the entrepreneurial possibilities open to him, Silver constructed the improbable hypothesis that he could decide to process his own grain, make it into bread and sell it around the world. The impediment to this plan, he concluded, was a lack of capital. To get out of his poor economic situation, he dreamt of finding a niche, a clever idea that no one had before him, to get rich quickly and almost miraculously. He mentioned Heinzman's Farms in the U.S. that made a fortune by selling their conventional flax as special health food to hospitals. He was aware, however, that as an individual farmer, he was at the mercy of the large grain companies. For most crops he grows, he saw himself in competition with all the other farmers as a price taker not a price setter. In contrast to the current politics of the Federal government, he would like to see the competence of the western Canadian Wheat Board enlarged and extended to all the crops he cultivates:

> I'm in favour of the Wheat Board. There are times I wish more grain were under the Wheat Board. If I could trust them as my marketer, that's an excellent way to market grain, from my eyes. Like I said, I wish I were the guy in control of all the grain in Canada. All of it. If you call the Wheat Board one guy. Cause that one guy would have the control of it—market control. And what it does is you go into the markets and you get the best price for everybody. You know, I could focus on doing a whole lot of other things to grow my crops and they just do the marketing. And if I can trust them to get my best price, great!
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> When you go to the open system and you got me bidding with my neighbour to a buyer, and we're just bidding down the low price, you know, and that's how it works. And we're a price-taker not a price setter. So the price is out there, and if the buyer doesn't want to

> take my grain at 10 bucks, well, my neighbour might say, I'll give you it at 8, and I'll say, well, I got to pay some bills, I'll sell it for 7. So it keeps driving the price down and the buyer sits there and laughs at us. So that's what I mean, we're all crazy for doing this, but I like my job. [Gary Silver, July 11, 2003]

The economic situation of most farmers I spoke to was and is extremely precarious in spite of and probably also because of the impressive array of agricultural equipment they call their own. Many middle-aged farmers, who had taken up farming in the 1970s when agricultural prices were good and the weather favourable, experienced a continuous collapse in grain prices since the end of the 1970s and are still struggling to pay back loans they took out to pay for the land, to allow their parents to retire, to increase the surface cultivated and to buy bigger machinery. When they took over the farm they often invested all they had saved in previous jobs over sometimes 10 to 15 years. The farm then became their retirement scheme. They often had second jobs in the winter that supplemented their income and basically subsidized their farms. Their wives had to work to make ends meet. Gary Silver was unable to profit from the high prices in 2007 because he had contracted part of his canola harvest to Cargill for a low price and lost large parts of his flax harvest to hail. He was desperately waiting for rain in the extremely dry spring of 2008.

Lyle Jefferson, a farmer close to retirement age, told me that the mental stress these debts provoked made him sick and that he was no longer able to enjoy the positive aspects of his job. Jefferson had started farming in 1974, one of the best grain-farming years in Canadian history. Lyle and his wife Nancy bought 830 acres from his family and slowly increased their land base to 1,360 acres of owned and 1,120 acres of rented land. They had to mortgage some of the land to pay for more. They bought bigger equipment on a credit basis to be able to farm the extended area and had to put up the equipment as collateral for the loan. They felt that they were in an economic situation where they could not make any mistakes without fearing the loss of their farm:

> In the past people have always talked about the farm as a way of life. The lifestyle is great compared to some others but not as great as it once was. It is more and more a stressful business now. The time and management requirement has become very great. You cannot afford to make mistakes. It is not the same lifestyle as twenty years ago. The machine is more comfortable and the physical labour is nothing like it was but the mental stress is much greater. It is the mental stress, because of the debts, that we had because of the purchase of the combines and the land.
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> The economics is not there any more. Land has come up for sale, at a reasonable price right next to your land. If you want to set up a block of land for the next generation you have to jump on that opportunity. That is what is happening here. Financial institutions offered the money so we bought. But of course this meant more debt. [Lyle Jefferson, farmer in Zelma, July 4, 2003]

The Jeffersons regretted the race that Saskatchewan farmers like themselves engaged in to become bigger and bigger. Many farmers lost out in that race, got into debt and went bankrupt. The population in Zelma, their rural community, was dwindling and the infrastructure that was set up for the population base of ten years ago, with a skating rink, a swimming pool and a curling rink, cannot be supported anymore. They thought that communities would be healthier and everybody would be happier with more people on smaller farms.

The reason for this decay, so Lyle Jefferson thought, is partially due to the erosion of cooperative structures that farmers built up in the beginning of the 20th century to defend themselves against the power of corporations. By the end of the 20th century, a third generation of farmers had lost control over the structures that their grandfathers built. As Jefferson put it, the free enterprise attitude that prevailed among farmers in the 1990s did not lend itself anymore to cooperative endeavours. The membership gave up control to a management that was uncommitted to cooperative thinking:

> Most of these things have been eroded, have been falling apart and maybe the problem is that people finally just give up. Maybe they think that nothing they do can stop this so-called progress. That's always what we have had thrown at us. That's progress. It is kind of the American way, it must be right. It's progress. [Lyle Jefferson, July 4, 2003]

Lyle Jefferson called the increasing economic liberalization "the American way" to which he wanted to oppose a Canadian way of a regulated "orderly marketing." However, as Nancy Jefferson pointed out, "we have a Federal government that does not stand up for its primary producers at all. We have been giving in to the railroads, we have given in to the Americans, and we have to be worried that they give in to the Monsantos of the world." Analyzing the current attempt of the Canadian government to abolish the single desk marketing of wheat and barley through the Wheat Board, she concluded that losing the Wheat Board would exacerbate competition among individual farmers:

> If they would get rid of the Wheat Board they would just be throwing low quality wheat on the market. The Wheat Board guarantees the quality and the quantity. Through the Wheat Board we will get the same high quality wheat for our bread next year. Prices would go down and people would be fighting, underbidding each other to sell their grain. You might as well have one marketer who has strong ties and a good reputation. [Nancy Jefferson, farmer in Zelma, July 4, 2003]

Also, Lyle Jefferson favoured a much stronger Wheat Board to take over the marketing of all grains, as he had neither the time nor the experience to do a good job at marketing his own grain. At the last short-lived rise in canola prices, he had waited to see the market price go up and go down again without selling. He argued that the theory of healthy competition between farmers that the agricultural ministry advanced was manipulation because "the more a farmer competes against his neighbour farmers, the better it is for others in the industry." When thousands of farmers compete among themselves, the grain industry, comprised of large conglomerates, can dictate prices to them.

Lyle Jefferson felt that he lost some of his independence to grain companies and chemical companies, and that he became a slave to his own business: "I am farming basically because I don't see myself as having lots of alternatives. I am definitely not doing it for the enjoyment of it and obviously not doing it for profit motives. I am thinking how nice it would be to retire."

Visions for an Uncertain Future

The strategies that Saskatchewan farmers followed to react to the increasing deregulation of agriculture were mostly individual in nature. Neo-liberal arguments appealed to the work ethic and the sense of justice that was presented as an inheritance from the times of their grandfathers, the pioneers of the prairies. Those who worked the hardest should be rewarded with success. To the reduction of their profit margin, farmers reacted by extending the surface cultivated, by buying new, more powerful machinery and by adopting less time-consuming production methods. They were hunting for astute ideas to find a niche market that they could exploit as long as their neighbours and competitors did not have the same idea. The farmers accepted the idea that the law of the market opposed them to one another as competitors although they regretted, at the same time, the disappearance of cooperative structures and rural communities. Community became, in fact, a contradiction (Jaffe 2003:143) as farmers competed with their neighbours—particularly via land markets. It came as a surprise to them that they were unable to make it in spite of following the advice of fertility advisors, bank managers and administrators of futures funds. Moreover, high prices for agricultural commodities did not attenuate the competition. As Jaffe (2003:143) pointed out, the steepest rates of decline of farm populations tend to be in booms rather than in busts. Concentration of land in the hands of few farmers actually accelerates in times of high prices as land prices tend to increase and old farmers sell out to insure their retirement.

Most farmers I talked to seemed to be caught in the traps of market ideology and family tradition. The myths they created around their self-sustaining autonomous ancestors who seemed able to withstand alone all the hardships of settling the prairies, put a tremendous pressure on them to prove themselves successful in an environment that appears much more civilized and benign than the one their forefathers had to face. As the dominant worldview of the prairies is so firmly committed to the value of hard work and the belief in progress, it became almost impossible for them to rethink their situation and envisage alternatives. The struggles they waged against natural elements—draught, frost, hailstorms and grasshoppers—are seen in a continuum as is their effort to achieve a decent price for their products. There is the strong belief that the market behaves according to natural laws like the weather that are sometimes favourable and sometimes ruinous to the farmer. The conviction that makes many farmers hold on to their farms and incites them to continue to indebt themselves and to buy more modern machinery is that the market goes in cycles. "The market is naturalized while nature is denaturalized" (Gertler 2003:56). One has to survive difficult times to become able to profit from the good times that are inevitably going to come. As Siegler put it, "things have a way of looking after themselves." The conviction is that the overwhelming power of large corporations and huge farms will be broken one day by the law of the market. As view also shared by Siegler's colleague, Paul Newman:

> I disagree with regulation. Everything goes in a cycle. If we go back fifty years ago there were farmers with horses that farmed huge stretches of land. [They] employed a whole pile of people and a few bad harvests and everything went broke and broke up into small farms. The cycle will come and the big companies will have to chop down. [Paul Newman, farmer in Govan August 16, 2003]

On the other hand, however, the farmers experience the disappearance of their neighbours and the gradual emptying of the countryside every day. This was most grip-

pingly described by an old farming couple that had experienced the days when the local train stopped at their doorstep every day to collect the cream cans and carry them to the local processor.[8] In their lifetime, the branch lines were closed down, the milk processing plant was transferred from Colonsay (10 km away) first to Saskatoon (60 km away) and then to Calgary (600 km away). They saw their mode of life disappear and be replaced by big farm operations, even bigger than the farm of 2000 acres that one of their sons is struggling to run with the most modern equipment.

The self-image that was so strong in the 1920s, that the Canadian prairies were feeding the world, is not relevant for today's farmers. They saw themselves first and foremost in a struggle for survival. As farmer Nancy Jefferson phrased it, "it would be great if this is what we are doing but in fact we are feeding in essence a lot of big corporations." In a curious reversal of causalities, they assumed that their products are too expensive for the poor people in the world and not that small farmers working their fields with a hoe cannot compete with their highly mechanized agricultural production and are thus producing less and less food.

Producing conventional cereal or pulse crops is less and less a priority for the provincial and federal government. Its publications advocate that Saskatchewan should move into intensive hog production, grow GM crops that could be used by industry for the production of new wrapping materials, or produce nutraceuticals.

The vision that competes with the one of the law of the market cycles is that of "Farmaggedon" (Kneen 1999); the apocalypses of farming when the farmer becomes useless and is replaced by huge farming machinery that makes his personal knowledge of the place and land useless and dispensable:

> Your whole social structure of the country disappears. You could have people living everywhere else in the world, fly in on the runways, get into the tractor, seed this place and leave. I'm getting twisted here, but it's very possible. You have custom combining crews in the states. They could come up finish here, go back to Texas for the winter, and you wouldn't have to have anybody up here. [Gary Silver, July 11, 2003]

Many inhabitants of the prairies seem to be haunted by the idea that the towns and infrastructure that have been built in the last hundred years and that have so thoroughly transformed the landscape of the prairies might disappear as quickly as they came. Thousands of abandoned farmsteads made of wood have already disappeared without a trace; entire villages were wiped off the map of Saskatchewan, leaving nothing but their name on abandoned railway stations. Although all inhabitants of the prairies I spoke to declared that they were very attached to the place where they grew up, they posed virtually no resistance to the destruction of the grain elevators that were the landmarks of their communities and found it quite normal that big wooden houses and public buildings were put on wheels and moved hundreds of kilometres to more auspicious locations. Were Saskatchewan farmers thus not really dwelling (Ingold 2000) in the landscape they have conquered and transformed; were they feeling like visitors in a violent natural environment they are ultimately unable to control?

This is the view that some of the organic farmers in Saskatchewan held, criticizing their conventional counterparts for working against and not with nature. Comparing themselves to conventional farmers they accused them of having "a chemical addiction," an almost compulsive need to spray pesticide, herbicides and growth regulators to obtain a clean homogeneous field even if a lower yield (due to more weeds but less expense for chemicals) would be, in the end, more economical for them. They argued that conventional farmers certainly produced much more than they do but that the money they received goes to pay the chemical companies and the interest on the loans they took out. As Paul Newman, who used to custom spray for other farmers and recently converted to organic seed growing, put it:

> For the zero till farmer the most important piece of equipment these days is the sprayer. They use their combines 120 hours per year, the tractor 100 hours and the sprayer 4 to 500 hours per year. Five to 6 to 10 applications per year, with high speed and with spray airplanes. A sprayer, 120 and 130 ft large, can cost $300 000 dollars. So they produce a whole bunch more in less time. They've got to produce a whole bunch more just to survive. [Paul Newman, August 16, 2003]

Like most other organic farmers, Newman took the decision to farm organically and to abandon chemicals altogether after he went bankrupt and became allergic to the chemicals he was spraying. Organic farming in the prairies seems to involve not so much a choice of a way of life, as is generally the case in Europe, as a response to necessity that has as a consequence a change of style of life and work and a radically different attitude to nature. It was one of the surprises of my fieldwork that the practice of organic farming by conventional farmers, who had previously worked as custom sprayers and sales representatives for chemical companies in their second job, brought about a profound change in their worldview and a capac-

ity for resistance that many conventional farmers had lost. Although they had not taken up organic farming by conviction, they started to speak about growing crops in an entirely different way than their colleagues.

Farming organically without applying herbicides, pesticides or chemical fertilizers instantly eliminates the dependency on chemical companies. Organic farmers tend to pay attention to the soil as a living organism; they start to experiment with putting complementary crops in the same field. They have to revivify traditional farming skills, time farm work more precisely and carefully observe soil composition, weeds and organic matter. Farming organically is more time-consuming and as the time slots for different agricultural tasks are narrower, a single organic farmer cannot farm the same number of acres that a conventional farmer can. As they were inexperienced in growing organic crops and also had to resist criticism from their neighbours about the weeds in their fields, they grouped together in associations of organic farmers where they exchanged experiences. Also, the harvest is commercialized through their associations or smaller trading companies that ship the crop in bags or separate containers to customers worldwide. As the demand for organic produce is growing and the market is stable, organic farmers feel secure and comfortable in their market niche, however temporary this may be. A large proportion of organic producers and consumers also see organic agriculture as a vehicle for changing the food distribution system. Many producers are striving to redefine their relationship to distribution and processing and to consumers, in an attempt to diminish corporate domination of the input, processing and distribution sectors (Cushon 2003:227). It seems obvious, however, that organic farming is protecting farmers only for a while from the control of large agro-food corporations. Some organic distribution networks in Canada have already proved unable to resist big money and have sold out to multinational corporations.

Nevertheless, by practicing this type of agriculture, the truths of the established system crumble. To the extent that farmers insulate themselves from market dependency on the input side, they also free themselves from the external pressures that push them towards economic calculation at the cost of those alternative goals of production (Mooney 1988:65). Newman told me how he developed a totally different attitude to the weeds that he used to combat as a custom sprayer just a few years ago:

> The farmer prides himself on a clean crop, as a state of accomplishment. Like a good-looking woman. If you have the cleanest crop in the country, you have nice machinery, you are a respected member of the community. If you have weeds you are nobody. And I am trying. Maybe I am not the best, I have lots of weeds out there. They will tell me a story, they are telling me some. Because I get inspected from the Federal government, my weeds are listed from year to year. Over the next five years I build up a whole trend of weeds and then I can try to go back to all these people who have the degrees and they can tell me what is missing in the soil. What is happening and why. Even though we went into organic seed production as a way to make money I think we are also developing education. As you have wild oats you must have too much nitrogen in the soil. I don't understand her [the agronomist's] theory but she has done that for years. [Paul Newman, August 16, 2003]

Newman cooperates with the few agronomists in government research stations working on organic agriculture and he started to regard the soil, crops and weeds as an interrelated organic system. One of the pioneers of organic farming in Saskatchewan, Edwin Lord, started to experiment in companion cropping on small plots that he set up behind his house. For him, organic agriculture is like the pioneer experience that his parents had when settling the prairies. He says that organic farmers have to cooperate more closely than their conventional counterparts; they need to exchange new experiences with companion crops, find ways to limit the weeds in their fields and try out mechanical inventions like the "broom chaser," a cutting instrument that cuts thistles out of the crop. Melvin Kaiser, another organic farmer, dreams of reconstituting a farming eco-system that resembles the cohabitation of different grass varieties on the prairies. When he heard a plant geneticist from the Land Institute in Kansas talk on the radio about his research into the development of perennial wheat, he contacted him and invited him to use part of his farm as an extension of his experimental fields. As the director of the Saskatchewan Organic Directorate, Arnold Taylor pointed out that conventional plant breeding using herbicides, pesticides and fertilizers is ill-adapted to the requirements of organic farming. The crop thus selected is not resistant to pests, is dependant on chemical fertilization and is prone to diseases.

The common enemy of these organic farmers, who have otherwise very different political outlooks and convictions, has become the agrochemical companies, Monsanto and Aventis (now bought by Bayer Crop Science), that introduced GM crops, in particular herbicide resistant canola, into Saskatchewan. GM crops are a menace

to organic cultures as the market for organic crops in Europe and Japan tolerates no trace of them. As there is no longer any canola seed available in Canada that is not contaminated with GM canola, organic farmers had to abandon that crop and attempted to sue Monsanto and Bayer in a class action lawsuit. The Saskatchewan Organic Directorate, an umbrella organization that represents organic producers, processors, buyers, traders, certifiers and consumers of certified organic food and fibre, filed a class-action lawsuit against the agrochemical companies Monsanto and Bayer Crop Science for having destroyed their market for organic canola and in order to obtain an injunction against the introduction of GM wheat. The claim states that when Monsanto and Aventis introduced their GM canola varieties, they knew, or ought to have known, that the genetically engineered canola would spread and contaminate the environment. The companies had no regard for the damage these crops would cause to organic agriculture. The claim alleged that loss of canola as an organic crop has robbed organic farmers of a high paying and growing market. The lawsuit was ultimately dropped when the courts refused to recognize organic farmers as a class and the Supreme Court of Canada declined, in 2007, to hear their case.

The anger of the farmers, however, is not only directed against agro-chemical companies that they accuse of polluting their crops, but also against a government guilty of complicity with the corporations for having financed part of their research and failed in its duty to protect the interests of producers, consumers and the environment. The old farmer, Edwin Lord, phrased his disgust with what he regards as the duplicity of government in terms of a denial of democracy:

> Monsanto wants global control. We live in an age of globalization and the corporation wants to control everything and wants the government to be secondary to them and they have our government in a secondary position to them. The Prime Minister has pledged to create a democratic government in the interest of the people and this is a denial of democracy. This is fascism. Hitler was not much different from this. I put a uniform on for three years to do something about that and now my own Prime Minister is doing that to me. [Edwin Lord, farmer in Davidson, August 14, 2003]

For Lord, market liberalism became the opposite of freedom, a form of dictatorship in which the government does not reign in, and even encourages, the agro-chemical corporations to flood Canadian agriculture with their patented GM seeds without giving the farmers and consumers the option to choose. Most organic farmers would certainly not share that extreme a view on Canadian politics and may be, like Newman, fervent defenders of market liberalism and radically opposed to market regulations. However, Newman has also become weary of the introduction of further GM crops since GM canola blew in from a neighbour's field and polluted his seed plots of flax and oats endangering his organic certification. He agreed to add an affidavit to the class action lawsuit arguing that "there is no science on the consequences of GMOs and it is affecting our future income. What is the real purpose in doing all this? Show me what the advantage of GM wheat is!"

Conclusion

Farmers in Saskatchewan did not harmonize with a historically fashioned landscape; they conquered one. This conquest was not an individual achievement but a concerted, centrally-planned one. As Innis showed, it was the consequence of the Canadian Dominion Government's plan for producing wheat for export (Barnes 2005). Farming has thus always been closely linked to politics. The current relationship of Saskatchewan farmers to the neoliberal state that withdrew support from agriculture and regulated in the interest of large agro-chemical corporations is characterized by acquiescence as the farmers made neo-liberal values of freedom and progress their own. They agreed to become what Foucault called "entrepreneurs of themselves" (Foucault 2004:232). However, to endure the unpredictability of the weather and the opacities of the market that escape rational planning and control, they resorted to the wishful thinking that the hard-working farmer would be rewarded and to the belief that the market followed a natural cycle where bad days would be followed by good. They seemed to have resorted to the extreme self-centredness that Weber (1973:187-188) dreaded, appropriating the simple evolutionary theory of the survival of the fittest. At the same time, they feared that they could lose that struggle and that the prairie environment and market forces could prove stronger than they and claim back what they had conquered. They already suffered from the gradual disappearance of their local communities.

The neo-liberal worldview of individual achievement and competition and the privatization of state services that the FAO study (Dixon et al. 2001) outlined has been absorbed and put into practice in Saskatchewan, thereby isolating the farmers economically and socially and making them incapable of confronting agro-chemical conglomerates collectively. Many Saskatchewan farmers have regarded global free trade in agricultural products that

the WTO negotiations try to institutionalize as the solution to their problems, as the worldwide establishment of a fair "level playing field." Innis showed convincingly that such a "level playing field" cannot exist between staple producing regions and the metropolis. Farmers believed, on the one hand, that the market should not be regulated by politics, and on the other, that they are solely responsible for the success or failure of their "farming businesses." They have thereby become incapable of defending their interests collectively and politically. According to their neo-liberal worldview, government cannot and should not protect them against the overwhelming market power of agro-chemical corporations. The only thing that remains to them to do is to produce more, more cheaply and on a larger scale.

Organic farmers seem to have achieved a different outlook on the workings of nature and the market, as they made the choice to renounce chemicals thereby escaping the economic control of agro-chemical corporations. This allowed them to achieve a deeper understanding of working with natural systems on the one hand, and on the other, gave them a detached view of the relationships of power and control that dominate agriculture and food production in general. Out of a different practice and skilling (Ingold 2000) in daily life, arose a worldview that made them capable of action, of filing lawsuits against multinational corporations and of dreaming of utopias of a radically different agriculture that corresponds to the ecology of the prairies.

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Notes

1 Roseberry defined anthropological political economy as the study of the formation of anthropological subjects within complex fields of social, economic and cultural power.

2 I have changed all the names of the people I interviewed.

3 They are in this way comparable to notions of destruction and damage limitation.

4 Hard physical work was certainly a requirement for survival in the early days but it has later become a value in itself, the measure by which to judge neighbours and fellow farmers. Farmer friends of mine admitted that if they found themselves sleeping at 7 o'clock in the morning and the telephone rang they would jump up and answer the phone on a dynamic note as if they had been awake for hours.

5 "During the first half of the 1990s, wheat prices rose and fertilizer prices tracked those increases. In the second half of the 1990s, wheat prices fell and, with a lag, fertilizer prices tracked wheat prices downward. In 2001, wheat prices again began an ascent, as did fertilizer prices. When grain prices rise, fertilizer companies raise their prices to snatch any additional revenue right out of farmers' pockets. Such pricing tactics are impossible in markets with real competition." (National Farmers' Union 2003)

6 Statistics Canada, Census of Agriculture 2001

7 This is part of a song sung by Ken Eshpeter, farmer at Battleriver, at the National Farmers Union meeting in defence of the Wheat Board, July 27, 2006.

8 Harold Smith, (Colonsay July 4, 2003):

> When we got married we got quite a lot of cows too. We had as many as 12 milk cows. It is interesting to know what happened to the cream. In the early days a truck would come round once a week and pick up the cream. We used to have a small ice well outside under some straw where we would keep the cream can cool. The can would be five gallons. Then that changed: the truck would not come any more but as we were just a mile and a half from the railway track, the train would come in every day at noon and switch at Colonsay. So we would go along to the track and put a flag on the platform of the station house and the train would see the flag and slow down and pick up your cream.

Edna Smith (Colonsay, July 4, 2003):

> After we were married we would not do that any more. We would deliver the cream to Colonsay and the big train would take it into Saskatoon and it went into the processor in Saskatoon. It would not be too long and the trains would not pick it up any more. When we would go into the city of Saskatoon we would take our can of cream ourselves. This would have been in the 1980s and then finally they got very strict and if your cream can had a little rust on it, it was condemned. You had to buy a new plastic one. So eventually they would not unload the cream in Saskatoon. We brought it to the city and they would haul it all the way to Calgary, 500 miles away. We never did understand that. It was a dairy pool. It was a farmers' organization... You had to wait for a week for your empty can to come back. We quit the thing then, it became too ridiculous.

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