

**Grass-fed Meats:
Peri-urban Rancher Strategies to Resist Dispossession
in the San Francisco Bay Area**

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ABSTRACT

During the contemporary agricultural revolution, large firms in the U.S livestock sector economy began to vertically integrate, dispossessing many small-scale, household ranchers. Peri-urban pasture-raised meat ranchers in California have developed alternative marketing strategies to persist. Global economic shifts and local development histories have led these producers to rely on a growing niche of informed, urban consumers. I interviewed these producers to understand their attitudes, market barriers, and strategies within the market. I found that ranchers prioritizing direct consumer relationships, ranching communities, and sustainable practices, overcame economic and epistemic barriers in the conventional livestock commodity chain. I apply contemporary theories regarding epidemics, localism, metabolic rift, social embeddedness, epistemic injustice, and natural capital to consider the strategies these ranchers employ. I advocate a general deconstruction of dominant neoliberal agricultural processing firms which would involve (1) increasing collaboration between global consumer and producer-based food movements, (2) reinstating forms of direct regulation over food processing and safety within U.S. marketplace, and (3) creating protections for traditional food culture and knowledge.

KEYWORDS

Pasture-raised, direct-marketing, food sovereignty, globalization, food processing

INTRODUCTION

Small-scale ranchers in the United States have resisted dispossession since the 1950's Contemporary Agriculture Revolution. This revolution has been characterized by the large-scale mechanization and motorization of agriculture, the cultivation of monocultures using selected high-yield crop varieties, the use of synthetic pesticides and fertilizers, and a shift from publically to privately sponsored agricultural research (Mayozer and Roudart 2006, Kloppenberg Jr. et al. 1996). In the United States and Europe, small-scale farmers which could not afford these new technological advancements had to borrow heavily in order to compete in the market. As farmers began to produce large quantities of major crops, like soya, maize, wheat, and rice, prices declined and farmers were dispossessed (Evenson and Gollin 2003). During this revolution, only well-equipped farms that could continue to invest, expand, and produce enough to receive an income per worker that was greater than the market price of unskilled labor, could subsist. Those who could not, reach a "threshold of capitalization" and are bought by other farms, or third-party investors (Mayozer and Roudart 2006). This revolution similarly impacted the livestock industry. The overproduced soya and maize varieties were used in concentrated feed, increasing livestock productivity, reducing prices, and dispossessing ranchers. Today, as processing and packaging sectors have continued to consolidate, several transnational processing firms, like Tyson Foods, Inc., Cargill, Inc., and ConAgra Foods, Inc., have gained control over the majority of these crops' commodity chains (Sharp 2005, Friedmann 1992).

The global neoliberalization of agriculture sets the foundation for rancher dispossession. Neoliberalism, the dominant discourse of neoclassical economics, encourages private sector liberalization by reducing government regulations over trade and privatizing public goods and resources (Harvey 2006). The most widely implemented neoliberal policy in for agriculture is the World Trade Organization's Agreement on Agriculture, which forbids governments from establishing price securities, like tariffs, embargos, and food reserves, exposing small farmers to global price fluctuations and competition (McMichael 2009). This has allowed U.S. and European based feed processing firms to restructure the global livestock commodity chain by collaborating with national governments to liberalize the trade of feed crops. By globally marketing newly created processed meat commodities, these firms ignore and replace traditional diets (Friedmann 1992).

These dominating transnational processing firms have used the strategy of substitution and appropriation to replace traditional ingredients and processes, creating barriers for small-scale farmers to represent their lifestyles, beliefs, and practices in the market. By developing chemical and biological substitutes, industrial food processors are able to bypass natural processes or create new processes, and appropriate part of the production process from farmers (Goodman and Redclift 1985, Friedmann 1992). Patel (2008) notes that these processing firms have control over the majority of consumers' food choices. Because of the comparative advantage established by liberalized trade and neoliberal policies, the majority of impoverished consumers in the U.S. and Europe can only afford these processed food commodities which have become less expensive than traditionally grown whole foods (McMichaels 2009). Without the means to exhibit effective demand, these consumers are unable to support small-scale producers and maintain traditional diets.

Today, small-scale ranchers now bear the majority of risks when participating in the conventional agricultural market, often facing the consequences of inconsistent buyers, changing food prices, fluctuating land value, and natural catastrophes by borrowing high interest loans and accepting off-farm jobs (Sharp 2005, Magdoff 2006). International livestock trade regulation creates barriers in the market for the advancement of small-scale ranchers by requiring the use of expensive concentrated feed and medicine, concentrated animal feeding operations (CAFOs), and centralized slaughterhouses. Further, those ranchers which have traditionally produced for generations are worked out of the market, leading to the uneven development of the livestock industry and cultural loss (Friedmann 1994). The neoliberalization of agriculture has replaced traditional knowledge, and infringed on small-scale farmers' ability to sell traditionally grown whole foods and represent their lifestyles.

Globalizing trade has encouraged regional and intra-national migration, accelerating suburban sprawl and impacting ranchers in the San Francisco Bay Area (Leichenko and Solecki 2005). The increasing value of Alameda and Contra Costa county ranchers' land due to surrounding real-estate development threatens their desire to preserve the land for future ranching while increasing costs for future expansion. Also, few ranchers have entered the market, as ranching has become less socio-economically viable and appealing (Liffman 2000). East Bay ranchers are threatened by nearby land use intensification and development pressures

on private lands and shifts in grazing access on public lands, which can lead to bankruptcy, reducing overall land conservation and wildlife habitat (Sulak 2007).

Despite these economic risks and barriers, these peri-urban ranchers manage to persist while adhering to attitudes toward ranching. Alameda and Contra Costa county ranchers remain motivated by their love of land's aesthetics, the securities generated by the ranching community, their long ranching traditions, and their identification with pastoralism, individualism, and the ranching lifestyle. These ranchers foster a degree of independence by resolving conflicts through peer relationships and avoiding external authorities (Sayre 2004). They also prioritize improving livestock production, quality of foraging for animals, soil stability, wildlife habitat, and land aesthetics (Liffman 2000). Ranchers in the East Bay will prioritize sustainable practices and land conservation for future generations even when grazing on both private and public pastures (Sulak 2007).

The synchronicity in these peri-urban rancher's motivations can be explained by the recent conservation history of the San Francisco Bay Area counties. In 1965, the California State legislature recognized the state's accelerating land degradation and passed the California Land Conservation Act also known as the Williamson Act (Goodenough 1978). This act was the first of many attempts to build collaboration between government agencies and private landowners. Before, the responsibilities of land conservation were primarily left to the federal government. However, federal land acquisition was seen as a threat to private property rights by landowners and ranch conservationists (Merenlender et al. 2004). In Marin county, non-governmental organizations have responded to these competing ethoi by collaborating with private land owners to secure the Marin Agriculture Land Trust (Rilla and Sokolow 2000). By limiting collaboration between land owners and non-governmental organizations, land trusts are more widely accepted and created (Walker 2009).

Although globalized agriculture and livestock industries are a major contributor to global socio-ecological degradation and loss of cultural knowledge, peri-urban ranchers in the San Francisco Bay Area have played a crucial role in ecological restoration and conservation by developing alternative management practices. Thirty-three percent of earth's usable land surface is used to produce crops for concentrated feeds and twenty-six percent is used to produce livestock. Livestock production also accounts for eighteen percent of greenhouse gas emissions, as well as wide-spread deforestation, loss in biodiversity and freshwater contamination (Steinfeld

et al. 2006). San Francisco East Bay counties have experienced declines in livestock production and overgrazing on urbanizing private grazing land due to shifts in management practices (Forero et al. 1992). However, today peri-urban ranchers valuing conservation and land preservation can make ecologically beneficial choices to persist (Huntsinger and Hopkinson 2006). For example, Alameda and Contra Costa ranchers will often choose the Williamson Act over a conservation easement, reducing their contractual time commitment while receiving similar tax benefits (Liffman 2000). Nabhan et al. (2010) note that ranchers which feed animals grass instead of concentrated feed reduce greenhouse gas emissions by half. These ranchers have altered their lifestyles, products, and land management techniques to successfully escape the pressures of the global market. Although many ranchers sell their animals to large transnational food processors, some ranchers on the urban fringe have been able to develop alternative means to selling their meats. These alternative ranchers contract with smaller, sustainably focused marketing cooperatives like Marin Sun Farms, become part of the Community Supported Agriculture (CSA) movement, use farmers markets or online direct marketing and often use a combination of these methods (Fanatico and Rinehart 2006). By upholding stricter standards and practices, ranchers can survive by marketing their meat to a specific niche of informed, urban consumers.

Few studies have been done which focus on the strategies the peri-urban ranchers in the San Francisco Bay Area undertake to resist dispossession, reflect their ranching attitudes, and maintain their cultural sovereignty in the market. Those studies that have been conducted (Liffman 2000, Forero et al. 1992, Huntsinger and Hopkinson 2006), while recognizing rancher perceptions, ecological degradation, and surrounding urbanization, are limited by survey and statistical methods in the context of rangeland conservation. These methods can be complimented by using interviews to document rancher's personal perceptions and motivations regarding decision making to sustain livelihoods in ranching. In this study, I document what motivates peri-urban ranchers' alternative decisions to the conventional market and how these decisions allow them to survive. Further, I analyze the strategies these ranchers use to realize their ranching ideologies within the market and through their communities. First, I identify pressures experienced by the ranching community. Second, I identify motivations that inform effort to adapt to pressures. Finally, I analyze how ranchers' make decisions regarding tradeoffs

associated with constraints and opportunities for meeting desired production ideologies and goals.

METHODS

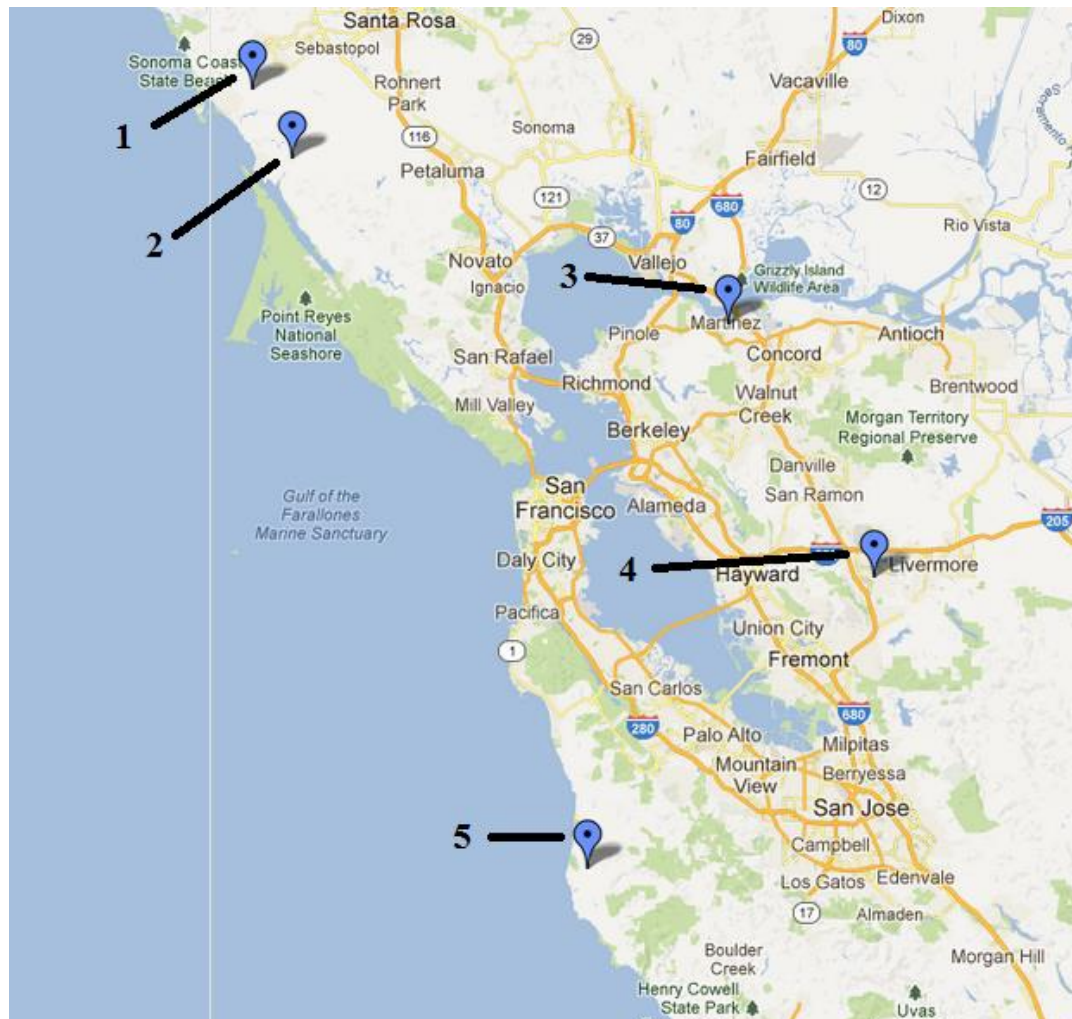
Study system

I studied grass-fed cattle and sheep ranchers surrounding California's San Francisco Bay Area who sell their product through marketing cooperatives or directly to consumers. I searched for ranchers within Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma counties. I documented these ranchers' motives for ranching, and how they were complimented or abandoned when marketing their product. I interviewed a total of five informants who ranched on specific regions of the San Francisco Bay Area and specialized in specific meats (Fig. 1, Fig. 2). I intentionally chose ranchers with significantly diverse operations to ascertain a variety of information.

Figure 1. Table of ranches stratified by geographic location, name, and meat product.

<u>Ranch Number</u>	<u>Bay</u>	<u>County</u>	<u>Name</u>	<u>Meat</u>
1	North	Bodega, CA	Bodega Pastures Sheep	Lamb
2	Bay	Tomales, CA	Stemple Creek Ranch	Beef, Lamb
3		Martinez, CA	Silver Springs Ranch	Beef
4	East Bay	Pleasanton, CA	Fischer Ranch	Beef
5	South Bay	Pescadero, CA	LeftCoast GrassFed	Beef

Figure 2. Map of blue points indicating the geographic location of interviewed ranches in California.



Data collection

I conducted semi-structured in person and phone interviews with these ranchers, documenting ranching attitudes, motivations, priorities, conflicts, and strategies. I asked for their impressions of grass-fed meats, product labeling, consumer bases, environmental concerns, recent ranching history, ranching community, and the ranching profession. To understand their motivations, we discussed ranching practices, methods of selling product, target consumer niches, and environmental impacts. Further, I considered suburbanization by discussing land use, ownership, urbanization, resource availability, climate, surrounding industry, market

availability, government institutions, and agricultural legislation. Finally, to understand contemporary strategies, we discussed current and future actions prioritizing specific consumer niches, governmental protections, ranching practices, lifestyles, and buyers. I used convenience and snowball techniques to identify respondents. I drew on contacts in the field who were affiliated with UCB, then used the online farm database eatwild.com to find specific ranchers. I began with general questions to identify basic demographic patterns and later focused on specific topics relevant to the individual rancher. If responses to my general questions were short and uninformative, I asked more specific questions pertaining to these topics. A detailed list of questions for the semi-structured interviews is attached in the appendix below.

Data analysis

I conducted a narrative analysis of subjects' responses, comparing and contrasting rancher's stories to understand grass-fed meat ranchers' reaction to a globalized agricultural market (Roe 1994). I focused on the nexus of values regarding traditional ranching, sustainability, and business decisions concerning production and contracting, farmer's markets, and other methods of exchange. Recurring responses were categorized in general themes, including ranching disturbances, ranching motives, and ranching strategies.

RESULTS

Ranchers provided several explanations which justified pasture-raised practices and marketing as opposed to conventional meat production. I have conceptualized these responses as disturbances towards ranching business and lifestyle, motivation for continue ranching despite disturbances, and strategies designed to overcome disturbances. Of the responses (n=5), let us assume 60-100% represents a majority (most), and 0-40% a minority (few).

Ranch disturbances

The key threats perceived by most ranchers to their ranching lifestyle, or the ranching profession were those associated with inconsistent capital, and the organic commodity chain. Ranchers had also synonymously noted suburbanization, price fluctuations, and mismatches seasonal shifts (Figure 3).

Figure 3: Frequency of statements concerning **perceived** threats to ranchers' profession.

<u>Topics Mentioned</u>	<u>Ranch Number</u>	<u>% Responses</u>
Inefficient Management System	1	20
Inconsistent Capital / Lack of Capital	1,3,4,5	80
Organic Commodity Chain	1,2,3	60
Globalized Commodity Chain	1	20
Predators	1	20
No Institutional Support	2	20
Lack of Farmers Markets	2	20
No / Poor Contractual Agreements	1	20
Mismatched Seasonal Change	2,5	40
Public Policies	2	20
Price Fluctuations	3,5	40
Suburbanization	3,4	40
Geographic Immobility	3	20
Negative Media	3	20
Overgrazing	5	20
Ownership Change	4	20

Ranchers frequently observed a growing suburban sprawl. Informants often articulated this in terms of land scarcity, or lack of pastures needed to raise grass-fed animals, and real-estate development, all of which they further associated with threats to the land's fertility and habitat. Few had referred to how the generally negative representation of the meat industry in media could impact all ranchers. Further, many argued organic labeling was considered unnecessary because the organic commodity chain was insecure, required more land, and used animal transportation. Few ranchers found climactic changes had made weather patterns less predictable while many ranchers had articulated financial insecurities in terms of delayed revenue and large, upfront costs. Ranchers leasing from private landowners feared future shifts in owner's management goals.

Ranch motives

Although there were many factors disrupting ranchers, they also indicated social, environmental, and economic reasons to continue ranching. (Figure 4).

Figure 4: Frequency of statements concerning motives for ranching.

<u>Topics Mentioned</u>	<u>Ranch Number</u>	<u>% Responses</u>
Land Conservation / Protection	1,4,5	60
Superior Product Taste	1,4	40
Healthy / Quality Product	1,3,4	60
Self-sufficiency	1,3,4	60
Localization	1,3,4	60
Customers	1,3	40
Ranching Community	1,2,3,5,4	100
Business	2,4	40
Private Property Rights	2	20
Independence	2,3	40
Lifestyle	1,3,4,5	80
Consumer Knowledge	3	20
Research	4,5	40
Sustainable Land Management	4,5	40
Sustainable Food System	5	20

Many enjoyed their participation in the larger ranching community often using the term family interchangeably with community. Further, desires for land conservation and localization were addressed when considering future generations. Ranching had granted few ranchers independence in terms of centralized animal productions, and entrepreneurial drive. These ranchers enjoyed their control over the land and the ability to direct their own decisions. The direct connection to their consumer base and promise of high quality, superior tasting product motivated few ranchers. Many ranchers expressed the desire to conserve and preserve the

environment. They had connected the desire to feed livestock solely with grass with a reduction in land degradation, pandemics, and natural resources consumption. One ranch had prioritized experimental research and collected data by monitoring seasonal changes in species diversity, grass growth, grazing patterns, and attempting to optimize ecological management techniques.

Ranching strategies

Ranchers specified means of maintaining ranches and ranching lifestyle (Fig. 5).

Figure 4: Frequency of ranch preservation strategy statements

<u>Methods Mentioned</u>	<u>Ranch Number</u>	<u>% Responses</u>
Online Direct Sales	1,2,3,5	80
Join Marketing Cooperative	4	20
Rent Public Tools	1	20
Maintain Current Consumer Base	1,3	40
Establishing Conservation Easement	1	20
Establishing Land Trust	1	20
Grass-fed Meats	1,2,3,4,5	100
Share Workload	1	20
Localize Commodity Chain	1,3,4	60
Expand Consumer Base and Operations	2	20
Optimize Herd Genetics	2	20
Grocery Sales	2	20
Farmers Markets	2,3,5	60
Lease Unused Pastures	2	20
Become Organically Certified	2	20
Refrain from Organic Certification	1,3	40
Domesticate Animals	3	20
Networking	2,3,5	60
Restaurants	5	20

Maximize Natural Capital	5	20
Rotational Grazing	1,2,5	60
Customer Visits	1,3,5	60

Most maintained grass-fed meats while few purchasing their land from private landowners. The primary focus for most ranchers was using direct online marketing techniques to sell meats, while few had used marketing cooperatives instead. Only a few ranches prioritized diversified techniques by selling to grocery stores or restaurants. However, all ranchers prioritized interacting with their consumer base, whether it be to maintain it or expand. Direct marketing became an efficient means for forging direct consumer producer relationships, facilitating transparency in product information. Most also retained a localized processing system to lower the stress of transport, and better domesticate their animals to support consumer demand for improved animal taste. Most ranchers which prioritized protecting and conserving the land wished to under-graze pastures while few ranchers which prioritized improving and sustaining the land researched management techniques to maximize natural capital.

DISCUSSION

Peri-urban ranchers in the San Francisco Bay Area have developed alternative strategies to overcome socio-economic constraints within the globalized agricultural market. Ranchers have used direct marketing techniques, alliances in the ranching community, and marketing cooperatives to build product transparency, uphold sustainable management practices and represent themselves in the community. The origins and effectiveness of these strategies can be understood through consideration of conventional livestock’s impact on public health, metabolic rift theory, and forms of epistemic injustice.

Direct marketing and cooperatives

Peri-urban ranchers expressed dissatisfaction with the conventional livestock commodity chain, and develop strategies to bypass economic, ethical, and social constraints. Ranchers did not acquire organic certification for their meat, wishing not to send their meat to distant facilities

for processing or to not feel burdened by “relying on a certified chain (Ranch 3).” They found that larger animal transport distances generates higher costs and stresses animals (Ranch 1) and found that the organic chain experiences uncertain price fluctuations and worker indolence (Ranch 3). Consumers in Northern California attribute more importance to taste, locality, family operated farms and their personal connection to producers than organic certification or grass-fed meat labels and there is no consensus on the meanings of labels like “naturally raised, local, and certified humane” (Gwin and Hardesty 2008). Although small producers have experienced short-term profits by using value-added labels to market their livestock, many of these labels are eventually co-opted by larger firms, misconstrued, and ambiguous to consumers (Magdoff 2007, Patel 2008). Available labeling schemes and the organic commodity chain become inefficient means for these ranchers to fully represent their product and lifestyle. Instead, ranchers successfully escaped the burdens of the conventional livestock market by forging direct consumer-producer relationships when promoting their 100% grass fed meats.

Farmers markets, one method of marketing directly to consumers, allowed ranchers to bypass the conventional commodity chain. Although ranchers indicated that farmer’s markets are not profitable, farmer’s markets did help build customer relations (Ranch 3). Feenstra et al. (2003) found that the majority of farmers participating in farmer’s markets in Iowa, New York, and California noted advantages for marketing and business development. Marketing often proved a difficult task, but most considered their “niche market a good market (Ranch 3).” Ranchers identified their niche based on customer preference and interactions during purchase. The niche was “quasi organic, local, grass-fed, humane (Ranch 1).” matched the rancher’s lifestyle, or were “loyal clients who understood their practices (Ranch 3).” Many customers come from urban or suburban centers and receive their orders at the farmer’s market, butcher shops or can have orders shipped to their doorstep. By selling directly, informing, and appreciating customers, ranchers develop a dedicated consumer base, ensuring future sales (Hinrichs 2000). One rancher noted that “so much of marketing is based on relationships (Ranch 4).” Facilitating transparent product information through direct customer relationships became crucial for ranchers to persist.

When direct marketing online, customers purchased the animal before slaughter and pay fees based on live weight and future slaughter. This allowed for ranchers to use local facilities at a lower cost, rather than using large, distant federally inspected slaughterhouses (Bartholomew

and Martz 1995). Fanatico and Rinehart (2006) stress that, by using this method, customers become directly liable for possible contamination, poorly butchered meat, or other production errors. However, ranchers insisted that promoting local butchers allows for better supervision of their meat processing and safety (Ranch 1, 3), reducing their legal vulnerability otherwise created when using the larger, disease-prone slaughterhouses in the conventional commodity chain (Clancy 2006). One rancher noted he would “rather have a low risk and a low profit” in response to the possible risks of a larger commodity chain (Ranch 5). Recent policy, shifting the responsibility of slaughterhouse inspection from state to federal agencies, has made regulation rigorous and dislocated, discouraging state inspection programs from continuing and forcing small butchers to either raise costs in order to better manage and monitor the regulations or leave the business (Worosz et al. 2008). As a result, ranchers producing specialty meats, like grass-fed and pasture-raised animals, cannot access affordable butchers, and become marginalized.

Further, these ranchers note that localizing animal processing lowers the animal’s stress during transport, and introduces animals to less unfamiliar human faces, better domesticating animals and improving meat quality and taste (Ranch 1, 3). Grandin (1980) observes that animals which undergo elongated forms of stress days prior to slaughter (like starvation, or transportation), results in more basic, dehydrated meats, acidic and tougher meats, while animals which experience extreme stresses shortly before slaughter, like torture or fighting, produces more acidic, tougher meats. Ranchers have used the strategy of having customers purchase their animals before slaughter to overcome institutional barriers set forth by government agencies, support local butchers, and improve meat quality. By directly marketing this way, consumers and producers share consensus on localizing production and their food system.

Although ranchers do face financial hardships, direct marketing complements rancher attitudes, allowing them to subsist. Liffman et al. (2000) note that ranchers often idealize the ranching lifestyle to justify large economic sacrifices, calling this “Ranch fundamentalism.” However, most Californian farmers experience higher profits from direct marketing than conventional marketing (Kambara and Shelley 2002). One rancher stressed that direct online sales of beef had been his most popular and successful marketing strategy (Ranch 5). When marketing directly, ranchers forge direct relationships with their consumers, allowing for an equal representation of beliefs, attitudes, and expectations. Ranchers often mentioned lifestyle, land conservation, and the ranching community as motivation for ranching (Ranch 1, 3, 4, 5),

While purchasing from these ranchers, customers go beyond the product's label to resonate with these attitudes.

Ranchers also work to forge alliances and interact with the ranching community to secure income, reduce workload, network and improve their well-being. Alliances are agreements made between two parties to uphold a common goal, and take many different forms in the ranching industry (Anon 1997). Some note that helping others in the ranching community could lead to benefit their operations. Ranchers whom feel geographically immobile by the demands of their daily workload, can call upon other ranchers in the community to tend to their animals for travel, knowing later that they will repay a similar favor (Ranch 3). Building community awareness and facilitating interaction is essential for small-scale rancher survival (Lyson 2004).

Larger alliances take shape in marketing cooperatives. In a marketing cooperative, ranchers collectively agree upon a similar set of practices and sell their product under a common name (Fanatico and Rinehart 2006). Often, the stated public mission that cooperatives use to advertise has a large impact on whether a customer or rancher will purchase or join. The rancher that sold through a marketing cooperative felt “a strong attachment to the ideals they represent (Ranch 4).” However, he also found it less burdening than direct marketing, as he did not have to personally advertize and market his meat to many individuals. Instead, the cooperative would buy the animals in bulk from him, taking full responsibility for slaughter, packaging, and marketing afterwards. Often, ranchers who sell in this fashion are capable of operating on larger scales with satisfactory premiums (Lozier et al. 2005). Although this rancher became distanced from his customers during this process, he still insists that the integrity of his beliefs, practices, and securities were upheld by his buyers. Because of the large upfront costs and his personal attachment to the animals, generating trust for upholding his ideals between himself and his buyer is essential before he sells them.

Peri-urban ranchers in the San Francisco Bay Area experience socio-economic success and financial securities by pursuing methods outside of the conventional livestock commodity chain. Ranchers doubt the quality and security promoted by available labeling schemes or consolidated slaughterhouses, choosing to pursue alternative marketing strategies instead. By selling at farmers markets, directly to consumers online or joining a marketing cooperative, ranchers can receive exceptional compensation for their work and reinforce their ideals by providing transparency of their product and practices to their customers. Further, the security

granted by a niche of informed, urban consumers becomes crucial for their subsistence when faced with a globalizing agricultural market. As urban sprawls and neoliberal policies expand, consumer influence over market behavior is reduced (Harvey 2006). These alternative methods which partially act outside of government or corporate standards, not only allow for specialty meat producers to subsist, but can also allow minority opinions, concerning localization, land preservation, or community health, to flourish.

Disease in Processing

Peri-urban ranchers' concern for meat quality and health stems in part from the recent history of zoonotic disease epidemics in the US. In 1986, Bovine Spongiform Encephalopathy (BSE), commonly referred to as Mad Cow Disease, was identified as the cause of the erosion in the cattle's brain in the UK. During conventional livestock production, infected meat and bone meal (MBM) was used as concentrated feed in Concentrated Animal Feeding Operations (CAFOs) for animals, eventually infecting humans. CAFOs are intensive animal feeding facilities created by a consolidated processing sector in the livestock commodity chain (Kimberlin et al. 2006). O'neill (2005) argues that the spread of BSE was also a "transnational policy problem, characterized by high levels of uncertainty and perceived risk." Risk assessment, a market driven approach to food safety, had been the predominating means for protection against the BSE-infected cattle from the UK until after the crisis, when governments were finally forced to enact strict embargoes against European and Canadian producers. The E. coli outbreaks also have roots in conventional livestock processing. Grain and corn have been overproduced after the Contemporary Agriculture Revolution and used as a cheap alternative to grass for concentration feed at CAFOs (Mayozzer and Roudart 2006). Diez-Gonzalez et al. (1998) note that switching the diet from grass to grain increases acid-resistant E. coli bacteria in cattle. Ranchers who graze cows on grass and avoid large feed lots, reduce the chances of BSE and E. Coli outbreaks. When exploring E. Coli outbreaks in the organic spinach commodity chain, Stuart (2008) finds that industry repeatedly fails to acknowledge risk or change their consolidated processing system and regulations made in response only creating an illusion of control over food safety to appease public concern.

Peri-urban ranchers in the San Francisco Bay Area often distrust larger commodity chains, and work to overcome the health problems caused by an industrialized livestock sector. These ranchers pride themselves on raising antibiotic and hormone free animals and correlate grass-fed with higher quality meats, and superior taste. One rancher insists the high ratings his animals receive after slaughter are due to his improved practices (Ranch 4), while another rancher works to increase nutrition in grasses to improve animal health (Ranch 5). Although rural U.S. ranchers only have access to these larger slaughterhouses, the opportunities provided by direct marketing techniques and marketing cooperatives have allowed peri-urban ranchers to bypass the conventional processing sector and use their own practices, ensuring the health of their community (Sharp 2005). Further, consumers which are directly harmed by the consolidated processing sector have an opportunity to exhibit equal demand through the alternative marketing techniques these ranchers employ.

Metabolic Rift and Embeddedness

Metabolic rift, formed by the globalized agricultural market, has driven ecological degradation and the absence of cultural recognition and knowledge between consumers and producers. Marx observed that the methods applied by large-scale intensive agriculture “disturbs the metabolic interaction between man and earth, i.e. it prevents the return to the soil of its constituent elements consumed by man in the form of food...(Marx 1867, 637)” Sociologists and geographers have built on this notion in modern Metabolic Rift theory, finding that pursuit for profit in a capitalist economy creates a divide between society and nature (Clark and Foster 2009). Ecological crises are caused by “rupture[s] in the metabolic processes of a system... specific to the current social metabolic order of accumulation and expansion, and directly related to antagonistic capitalist social relations” (Gundersen 2011, 28). In a globalizing agricultural market, the social relations of producers and consumers become crucial for environmental sustainability.

Some peri-urban ranchers in the San Francisco Bay Area have recognized these ecological crises and expressed the need for sustainable management practices, sometimes focusing on localizing stages in the commodity chain as a means of creating a sustainable food system (Ranch 1, 3, 4, 5). These ranchers have identified land scarcity, surrounding

development, land degradation, and the need for maintenance and preservation. In response, they have used nearby pastures for cattle feed instead of importing feed, used local butchers instead of distant slaughterhouses, sold to the local community, or have joined a localized marketing cooperative. Further, these ranchers have implemented improved forms of rotational grazing, a method of subdividing pastures and controlling animal grazing patterns. One rancher has been able to research maximum forb growth, methods for introducing perennial grasses during the rotational grazing process, and ecologically beneficial animal stocking rates (Ranch 5). These producers' alternative production strategies have allowed them to change their management practices to effectively combat ecological crises.

However, the pressure to uphold these practices, not only stems from their beliefs, but comes from their land owners and customers as well. Those ranchers which lease from private land owners identified their "vision to preserve the land (Ranch 5)" or a "desire to secure a private, generational land trust (Ranch 4)" Further, ranchers identified "locavores" and the growing "local food movement" as reasons for localizing production (Ranch 1, 2). These ranchers' desire for localization had been accentuated by directly accessing consumer perceptions and preferences. Further, due to direct customer transactions, ranchers were held accountable for their production methods.

McClintock (2010) stresses the importance of using social and individual approaches of metabolic rift theory to accompany focuses on ecological degradation in the context of growing urban agricultural operations. He argues that food has been commodified as the agricultural sector has industrialized, reducing the social relations which run throughout production and consumption. Instead, the culture, tradition, and knowledge surrounding all aspects of food have been replaced by a neoliberal, market-based ideology. Further, he insists that individuals are inherently part of nature and that the ideologies humans adopt both shape and are shaped by surrounding ecosystems. Historical meaning, symbolic significance, and importance of food created by and embedded in social relations are destroyed when food is marketed in the globalized agricultural economy. Because food and humans are inseparable and are both derived from nature, this dislocation of meaning impacts humans, not only ecologically, but socially and individually as well. Metabolic rift can then be used to understand the transformation of traditional belief systems and alienation of individuals from nature.

San Francisco Bay Area peri-urban ranchers' struggles for subsistence are a reaction from metabolic rift, and involve efforts to maintain culture and personal development. For example, those who wished to direct market avoided or refused available labeling schemes in the conventional livestock market because they often found that these labels did not fully represent their product, and themselves. One rancher explained that they are so "very direct" that there are "no labels" for their meat (Ranch 1). Instead, these ranchers described their generational ranching history, lifestyles and priorities either online or directly to customers with whom they come in contact. Further, these ranchers encouraged their customers to personally visit their ranch to personally introduce them to their lifestyle and practices. By successfully approaching their business in this manner, they were able to better represent their beliefs within the market, protecting them from cultural loss, while motivating urban consumers to immerse themselves in a rural setting, and rediscover nature.

Approaches to market behavior which acknowledge forms of "embeddedness" explain how this metabolic rift is bridged. New forms of sociological economics stress that markets are governed by socially constructed institutions, influenced by the social interactions of all players (Lie 1997, Block 1990). Further, all aspects of consumer and producer ideology are inevitably "embedded" within and impact the market (Polanyi 1957). Those firms which have consolidated, and gained control over agricultural and livestock production, have a tremendous impact over the behavior of the global market by employing neoliberal ideologies (Plehwe et al. 2006). However, direct marketing allows for minority beliefs to be represented by incorporating the interests of all players (Kinsey 1994). By participating in marketing cooperatives, farmers markets, or by direct marketing online, peri-urban ranchers were most capable of representing their ideologies within the market. The emergence of embeddedness has deconstructed dominant neoliberal, market-based ideologies put forth by transnational firms, by allowing for the minority perceptions of producers and consumers to be equally represented, and acted upon. Ecological, social, and individual metabolic rifts, created by imposing neoliberal ideology during industrialization, are mended by direct consumer-producer interactions.

Epistemic Injustice and Natural Capital

Challenges experienced by peri-urban ranchers in the San Francisco Bay Area practicing sustainable agricultural can be understood through the concepts of epistemic injustice and cultural recognition. Epistemic injustice refers to the process of receiving credibility by those who claim forms of knowledge. Those underrepresented by empowered government, academic, or corporate institutions often cannot access this credibility, causing “cultural forms of oppression, in this case ‘cultural imperialism’ (McConky 2004).” Epistemic injustice is often explored ethically, considering how prejudices upheld by these institutions impact social power, virtue, and the genealogy of knowledge (Fricker 2009). Although epistemic injustice often describes the impacts of globalization by those residing in countries within the global South, the main focus lies primarily on marginalized communities and their unconsidered and unsupported beliefs (Ronzoni 2009, Buchanan and Keohane 2006, McConky 2004).

Peri-urban ranchers in the San Francisco Bay Area, seeking to uphold their ranching lifestyles and perceptions, have been marginalized by neoliberal discourse enforced by globalizing transnational processing firms. Their socio-economic disadvantages within the market can be linked to “antagonistic capitalist social relations” (Gundersen 2011, 28). These ranchers had little institutional support for their practices and used the community to avoid relying on external authorities and relationships with conventional commodity chain agribusiness players. For example, some ranchers supported local butchers, whether or not the butchers were federally or state inspected, and others used direct marketing to overcome epistemic barriers associated with the current organic labeling system. Further, these ranchers collaborated with consumers in order to uphold minority perceptions, like “sustainable land management” and “localization,” and to represent their own lifestyles in the market and their community. Their strategies are a reaction to the epistemic injustices of these large agricultural firms.

Although epistemic injustice can be observed directly through conventional market transactions, the social relations and formalities with which people operate can equally impact marginalized communities. For example, some fields of academia can institutionalize prejudice when manufacturing knowledge. In agricultural research, Elliot (2012) finds that researchers can selectively ignore socially crucial perspectives on famine, food sovereignty, and sustainability by limiting the scope of their research question, relying on specific research strategies, or resorting to objective prose, later impacting common knowledge. Often mainstream media and environmentalists, influenced by contemporary research, will solely blame ranchers for

ecological degradation (Briede 1994). However, there is an absence of accessible knowledge to farmers on sustainable agricultural methods (Scoones and Thompson 1994). This is likely because of a recent shift from public to private funding for agriculture research in developed countries (Alston 1998).

Direct marketing and marketing cooperatives allow peri-urban ranchers to overcome epistemic barriers. Carolan (2006) stresses that, in order to overcome the current epistemic and social barriers to sustainable agricultural practices, they must be understood through an examination of socio-institutional relationships and overcome through social solutions which encourage open dialogue, community structures, and trust. Peri-urban ranchers went beyond market and legal constraints when networking and marketing by creating personal relationships and facilitating the direct transfer of knowledge and ideas. Further, they pursued alternatives to conventional agriculture and sought to restore the credibility of their profession. One rancher had manufactured knowledge, by experimenting with ecologically sustainable management techniques for grass-fed ranching (Ranch 5). His goals were to “maximize productive, diverse grasses” to sequester carbon, find optimal grazing and stocking rates to avoid soil and pasture degradation, and develop usable business and grazing plans for ranchers. Although his research was not used by federal or corporate institutions, he led workshops to inform the California, grass-fed rancher community. When addressing knowledge barriers in the profession, ranchers suggested that networking within the ranching community was a laudable remedy. Although the priorities of institutionalized research have shifted, ranchers have found opportunities to validate and accentuate their beliefs and practices through their communities (Hassanein 1999). Further, those ranchers whom are firmly motivated by land conservation, sustainable management, and food sovereignty, do have a profound impact on the profession and the market (Berkes 2004).

Ranchers recognize the growing impetus for developing forms of “natural capital” in the field of sustainable agriculture. Natural capital valuation methods assign monetary value to ecosystem services, like trees, minerals, and the atmosphere, otherwise ignored by the conventional market. Costanza et al. (1997) contend that there are \$33 trillion dollars worth of ecosystem services produced annually that are unconsidered in the current market. The Millennium Ecosystem Assessment recently pushed to institutionalize natural capital within the scientific community by recognizing changes in global ecological degradation using monetary terms (Reid et al. 2005). One rancher noted that natural capital is a “new buzz word” used to

“make sustainability profitable (Ranch 5).” He insisted that by focusing on the metrics which “have value to people,” ranchers can find ways of protecting themselves from “losing the family farm.” Ranchers adapt to the shifting market paradigms to persist. In this case, prioritizing sustainable land management by improving habitat or restoring stream crossings increases natural capital and the value of their operations. However, Foster (2002) argues that natural capital, being derived from neoclassical economics, is based on economic reductionism that can obscure ecological exploitation sought during commodity exchange. The process of determining natural capital values commodifies nature, deconstructing and replacing alternative forms of value, like ethical or aesthetic concerns. Although natural capital can justify ecological preservation in the conventional market, it fails to address the values upheld by local communities and the epistemic inequalities between large and small producers.

Peri-urban grass-fed rancher concerns for sustainable practices are impacted by forms of epistemic injustice. Ranchers have overcome epistemic barriers created by dominant institutions in the conventional livestock commodity chain, by situating themselves in local communities and networking within the ranching profession. Some ranchers have successfully justified sustainable practices by adopting contemporary economic theories, such as natural capital valuation. However, agricultural firms continue to promote theories driven by neoliberal hegemony, striving for the privatization, commodification, and exploitation of nature (Plehwe et al. 2006, Harvey 2006). Peri-urban ranchers must adapt to these new theories in order to represent their ranching values so that they and their community may persist.

Conclusion

Peri-urban ranchers in the San Francisco Bay Area have employed direct marketing techniques, joined marketing cooperatives, and forged alliances in the ranching and local community to bypass the global agricultural market and persist. These ranchers have upheld alternative management practices, like maintaining 100% grass-fed, pasture-raised meats, to ensure community health and protect against epidemics. Both ranchers and customers share concerns for localization and sustainable production through the transaction of their products, as explained by metabolic rift. Further, these strategies allow for customers to impact their production standards as markets are generated by changing social institutions and ideologies.

Conversely, direct economic support from customers allows ranchers to effectively adapt and implement new management practices. Epistemic barriers created by globalized agriculture and neoliberal hegemony have forced ranchers to rely on their communities to produce knowledge. However, because all participants' ideologies are equally "embedded" within the market, direct consumer-producer relationships and transactions within their community have become most effective for supporting rancher attitudes, knowledge, and lifestyles.

Limitations

Although the research investigates several contemporary issues in peri-urban rancher conditions and practices, there were some unavoidable limitations. Because of the large time commitment these peri-urban ranchers have to maintaining their operations and a degree of exclusivity within ranching communities, there was difficulty finding available ranchers for interview. The resulting small sample size limited the possible conclusions for the study, and necessitated wider literature review. There is also an unavoidable cultural bias when observing participants, present in all modes of research. Interviews and narrative analysis require experience with a given subjects perceptions, extensive interpretation and close consideration. Differences in academic, government, industrial and rancher jargon within the agricultural and livestock sectors are vast.

Future Direction

Contemporary literature will often take a market based approach when suggesting alternatives for aiding the conditions faced by small-scale pasture-raised meat ranchers. Conner et al. (2007) have argued that the greatest need for pasture-raised producers is to introduce additional brokers and distributors to connect these ranchers to consumers. However, intermediary processors today strip agricultural producers of rights and do not provide full compensation for their products (Magdoff et al. 2000). Renting et al. (2003) also suggest placing stricter definitions for current labels and introduce new labels for pasture-raised meats to encourage consumer knowledge. But, peri-urban ranchers often find that labeling schemes do not represent their lifestyles or practices. Further, this approach relies mostly on consumer

action to improve the condition of peri-urban ranchers. Harvey (2006) argues that individual consumer action is most commonly advocated, but not conducive to effective market change.

Little producer-based research has explored the growing trend of grass-fed meats in California using semi-structured interviews and narrative analysis. Directly interacting with ranchers provides crucial information on their conditions, techniques, socio-economic interactions, and more. This approach is rare, accurate, effective, and should be implemented elsewhere. Future research should consider alternative theoretical frameworks for analyzing peri-urban ranchers, while including more informants. Kloppenburg (1996) articulates an organizing framework, called the “food shed,” which considers how alternative producers and consumers are linked through the market, communities organize and facilitate food concerns, and socio-environmental issues impact communities and the market. Adopting more theories in modern research which involve social embeddedness will provide new lines of inquiry for market behavior and impacts (Polyani 1957).

My results suggest a variety of recommendations. I advocate a general deconstruction of dominant neoliberal agricultural processing firms which would involve (1) increasing collaboration between global consumer and producer-based food movements, (2) reinstating centralized forms of direct regulation over food processing and safety within U.S. marketplace, and (3) creating protections for traditional food culture and knowledge. Consumer-based food movements, like organic or fair trade labeling schemes, focus on material restrictions to processes, like ingredients or economic premiums for underprivileged farmers, without considering the socio-cultural behaviors and constraints of agricultural production. These approaches ignore the larger neoliberal political economic structure, current barriers to entry, regulation driven rents, and, therefore, must focus on industrial processes and social interactions of producers and their governing authorities, whether they are cooperatives, governments, or firms (Guthman 2004, Bacon 2010, Luetchford 2008). Many food justice movements have conflicting notions of justice which exclude deeply rooted cultural traditions into their goals (Holt-Gimenez and Shattuck 2011). However, a more reflexive approach toward food justice, which focuses on processes instead of future vision, retains a strong memory of past inequalities, and does not insist on shared values or favor any scale of political change may have a wider impact when attempting to mend the inequalities within agricultural production (Du Puis et al. 2011). Further, current regulations for food safety must be scaled according to production

volume and geographic scope and have more oversight, while acknowledging the ecological condition of surrounding biomes during production (DeLind and Howard 2008).

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APPENDIX A: Sample Interview Questions

I. Example Interview Structure

❖ **Big picture questions:**

- How did you get into ranching?
- How did you get this ranch?
- What is your typical day like as a rancher?
- How do you sell your animals?
 - Who do you contract to?
 - Who do you lease to?
- Do you know the history of your land?
 - What specific regulations govern this area?

❖ **What are your ranching ideologies / goals/ priorities? (i.e. why ranch?)**

- Would you consider yourself a sustainable rancher?
 - How do you incorporate sustainability in your practices?
- What's the money like as a rancher? Is it your largest priority?
- How did you get into ranching? Would you consider a ranch a good environment for a family?
- How much do like the ranching community? Is there a lot support? Do you feel well connected?

❖ **Which regulations govern your product, what do you do in response to this regulation?**

- What does it take to become organically certified?
 - How have you changed your farming methods to become/stay organic certified?
- Do you have specific labeling for your product (fair trade, local)?
 - What must you do to qualify for such labeling?
- Do you participate in the California Land Conservation Act (The Williamson Act)?
 - What must you do to participate in them? Is it helpful, worth it?
- Meat packing? Food & Drug Regulation? FDA? USDA? Farm Bill?

❖ **How does the market impact your product, what do you change to meet the market?**

- To whom do you contract?
 - What requirements to they have?
 - Have you had to change many things to fulfill these requirements
- Why do you contract?
 - Is it more profitable?
 - Do you agree with their required practices?
 - Would you consider them sustainable?
 - Do their requirements aid or interfere with your ranching lifestyle?
- Who are your competitors?

❖ **Does the market satisfy your needs?**

- Does your contract promote your philosophies?
 - Do you feel your contract promote sustainability, family, tradition, business?
- Does the Williamson act promote your philosophies?
- What would you like to see different?
 - How do these contracts, legislation need to change?