

Abstract

This ethnographic study focuses on Poweshiek CARES, a recently-established grassroots organization that has garnered a great deal of attention since its formation last spring. Through the lens of political ecology and we()-1--Md(n)2(d)(li6(o)6(n)6(a)6(i6(n)2(s)i0(g)-2(n)t 2(f)r(f)6(o)m ou)-10(g2

prepared, but anyone in attendance had the opportunity to comment and bring up additional issues. The group was aware of my presence at the meetings, however I did not participate directly in the discussion. I took notes at each of the meetings I attended but I did not audio-record.

Currently, the group consists of 83 official members including Grinnell College faculty and residents of the town of Grinnell, in addition to residents of Chester Township, the district of the proposed expansion, who, as neighbors to the confinement, would be affected most directly. One member, a retired Grinnell College professor, and a current Grinnell student conducted a demographic survey of CARES membership last December. The survey indicated that the majority of members either live or work in Poweshiek County and are over the age of 18. Over 50 percent of members have lived on a farm and over 12 percent still do. Twenty-four percent are non-farm rural residents and 63 percent live in incorporated towns.

Based on my observations, I chose to interview 11 individual members, including the leader, a retired college professor, several concerned residents of the town of Grinnell, and a number of neighbors to the proposed confinements, including a vegan who runs confinement feeding operation with her husband. I also interviewed one past and one current member of the Board of Supervisors, both of whom had attended at least one CARES meeting. I recruited individual members to interview via email and recorded the interviews both in my field notes and using an audio recorder.

Finally, I conducted two focus groups at a local diner, which included two and six individuals, respectively. For the first, I recruited participants by emailing an invitation to all members whom I had not yet interviewed. The group communicates primarily through email.

received a number of positive responses, only two attended, however they are both vocal and active members of the group and made important contributions to my understanding of the group's members and their values. For the second, I worked with the leader of CARES, who specifically contacted neighbors of the proposed confinements in Chester Township. She participated along with five others. I took notes but did not audio-record the focus groups. The first focus group consisted of two retired, rural residents who grew up in Iowa, moved away, and returned. The second focus group consisted of Chester Township residents who had lived there for at least ten years.

Of all the individuals I spoke with, five were affiliated with Grinnell College in some way, either as former professors or current staff or faculty. One had served on the County Board of Supervisors and one currently holds a position. Four lived in town; others considered themselves rural residents, living either in Chester Township or another district outside the city of Grinnell.

Poweshiek CARES

THE GROUP'S HISTORY

CARES formed in May 2012 in response to a Chester Township resident's discovery that her neighbor had plans to double the size of his hog confinement operation. Facilities like the neighbor's are considered CAFOs and by legal definition consist of a totally roofed structure in which animals are fed and maintained for at least 45 days of the year. The definition also includes any structures constructed to store their waste (IDNR). Often they are one and the same. One of 55 confinements in the county, this particular operation currently consists of two sheds of 2,500 hogs. T

As part of the application process, the DNR also conducts an inspection of the site of the proposed expansion. CARES's leader attended the inspection and learned that it was Prestage rather than her neighbors who were profiting from the confinements. "Then I really got upset because there was no value whatsoever of having those hogs in my neighborhood," she said. "I felt that we were being used. I felt victimized." Feeling powerless and outraged, she called her neighbors to alert them to Prestage's application.

withdrew its

STRUCTURE AND LEADERSHIP

As a recently incorporated non-profit organization, CARES falls under the legal status of a 501(c)(4) organization, which allows them to receive tax deductible donations and still pursue political advocacy. There is the perception among several members that 501(c)(4) status gives the group legitimacy, will make CARES a more appealing ally to other community action groups, and is ultimately essential to CARES's long-term sustainability as a grassroots organization. "I wanted the organization to continue after something had been accomplished or not accomplished with the CARES group," explained one member, a retired professor whose professional interests

the president have expressed interest in exploring potential actions from the college against the proliferation of hog confinements in the county.

The groups' plans for the future include partnering with other organizations such as the Iowa Environmental Council and other community action groups; ICCI and the Iowa Farmers Union have been suggested as potential allies. Other members said they would like to invite local CAFO operators and CAFO proponents to their meetings to present their point of view. The group hopes to pursue grants to implement technologies such as scrubbers or simply woodchips to ameliorate some of the environmental problems of CAFOs. Finally, the group would like to increase their presence on facebook and maintaining a comprehensive record of their activity on their website.

CARES AND THE COMMUNITY

Arguably, the group has become an institution of the Grinnell community by establishing relationships among members and providing a forum where members can speak freely. The issue “really has drawn neighbors together. I’ve met people, my neighbors even, that I never knew before,” said one Chester resident. “I’ve had the opportunity to connect with other people and that’s a good thing. One of the positive things that’s come out of this is that it has brought us together as a neighborhood,” said another. Members independently brought up specific images associated with solidarity. “I keep thinking about a longboat with many rowers,” explained a member. “It’s important to have a bunch of rowers so that people can take a break when they get tired.” Another member described CARES as a “train with many cars, all moving toward the same thing.”

This solidarity is centered around the members' shared concern over the detriment CAFOs pose to their own quality of life and that of future generations. Yet the group is still somewhat divided on which issues to prioritize and the best course of action to pursue. Specific points of tension include whether to ally with ICCI and to adopt its method of communication. According to one CARES member who currently sits on ICCI's board, ICCI has wide-reaching appeal and speaks for all members of the community. "They're ordinary people like me," he said. "They're farmers, teachers, nurses, social workers - just people who want to get something done." He also noted that numbers and volume were the most important factors in sending a message to the legislature. "We gotta have a lot of people and we gotta do a lot of hollering or we're not going to get anywhere." For one member, ICCI inspired a great deal of trust and loyalty. After her calls for information and help were dismissed or turned away by researchers and the state legislature, she explained, "CCI actually listened, and for the first time, I felt that someone cared," she said. "They know. They listen."

Other members share her opinion of ICCI as helpful in initially mobilizing the group, but felt that their reputation as "rabble-rousers" would ultimately be detrimental to CARES's efforts to communicate with the legislature. "I have mixed feelings about CCI," said another member. "They definitely helped us initially start the process...but being so vocal and loud doesn't help." Another member noted the division explicitly. "[ICCI] alienated a lot of the early people because of their tactics," he explained. "They don't subscribe to a sort of Iowa way of being - quiet,

of overlap. We have different goals, I think. The Chester group wants immediate action whereas CARES is focused on the bigger picture,” said one member. Another member used more divisive terms like alienation and outsider, linking the separation to a perceived division between urban and rural residents. Despite these differences of opinion, its members have reason enough to believe CARES will continue to live on as an organization. “I think that its members see a need for the group and want it to continue,” the group’s leader concluded in one interview.

CARES’s VALUES

CARES’s goals and actions so far speak to the group’s ideology on the whole. One of the strongest and most widely held values among members was respect for the community, accounting for the value they attribute to the local landscape, small-scale family-owned farms, the implicit understanding of neighborliness, and the wariness of Prestage as community outsiders. Members’ loyalty to the community compounded their anger and frustration at the loss of local control. CARES members viewed their fight as a global issue, contextualizing their fight as a local example of a broader change in the agricultural system. What is more, they viewed it as a moral issue, viewing the changes as unethical.

Many members of CARES were raised in Iowa or have lived in the area for years. These members had strong opinions about farming and life in the Iowa and ascribed a specific set of values to the Midwestern agricultural lifestyle. Members established that there are good and bad ways to farm and, according to one woman, “if you do it right it’s not a problem.” According to the farmers of the group, good farming practices first involve being a part of and respecting the community. Members emphasized the importance of living on the site of the hog facility

their hearts,” explained one member. However, all members emphasized that this way of life, the good way of farming is steadily becoming obsolete. “Now, most farmers have to have an off-farm job in order to stay farming...There’s no market for family farms any more,” the same member explained.

Members described a changing agricultural system, one that had become entirely profit-based and prioritized economic efficiency and individual gain over the well-being of the community. “Everything is different now,” said a member. “The diversity of the old family farm is gone. Now it’s all agribusiness and monocultures.” Members attributed many of the agricultural system’s current problems to an increase in competition and the development of much larger national agribusinesses that could out-compete family farms. “People used to be very conscientious of how their actions affected others,” explained a member. “Now greed has taken over. It’s a new ‘me generation’.” Other members corroborated her statement describing how community pressure use to be a more powerful check but now that out-of-state businesses had moved in, it has lost its effectiveness.

Theoretical Perspectives

Three theoretical perspectives can be applied to the phenomenon of CARES. Studies in political ecology, as well as specific concepts from Mary Douglas and Aaron Wildavsky (1982) and Kendall Thu and Paul Durrenberger (1997) provide insight into how and why the group formed, explain the group’s struggles and successes so far, and suggest how CARES might achieve its goals in the future.

THEMES FROM POLITICAL ECOLOGY

Political ecology is a holistic and interdisciplinary approach frequently used to analyze social responses to environmental change. Analyses typically highlight four major themes within the context of industrial agriculture. State control of natural resources, a dependency on technology, a dominant discourse of developmentalism that celebrates economic efficiency as an aspect of progress and modernity help describe the current political economy. Lastly, political ecology analyzes social mobilization as a response to the impacts of the first three themes.

According to Greenberg and Park (1994), political ecology is rooted in the intellectual work of Hobbes, Adam Smith, Malthus, Ricardo, and Marx, the last of whom “came closest to defining a dialectic between individuals, their productive activity in human society, and nature” (25). Drawing on ecology and evolutionary biology from the natural sciences and cultural ecology and political economy from the social sciences, the discipline arose in the 1970s out a developing consensus that it was not enough to focus on local cultural dynamics or international exchange relations, and that the past and present relationship between policy, politics, and the environment needed to be addressed (Robbins 2011). Though Eric Wolf is credited with coining the term in the early 1970s, Piers Blaikie and Harold Brookfield (1987) are often credited with establishing the approach with their analysis of resource control in what they term developing and developed world systems.

AGRICULTURE IN AMAZONIA

Schminck and Wood’s *Contested Frontiers in Amazonia* (1992) is an early, quintessential application of political ecology, which, in relation to the context of CARES and confinements in Poweshiek County, addresses the issues of state controlled agriculture, the championing of

technology and so-called “economic progress” over local knowledge and traditional ways of life, and the social consequences of such power and ideologies.

Their report analyzes the effects of Brazil’s National Integration Plan, a state-sponsored project launched in the early 1970s to develop land in the Amazon region. Comparing the project to the Homestead Act in the US enacted roughly a century earlier, the authors maintain that the subsidies and tax credits established by the project created a political economy that favored well-financed investors at the expense of local peasant farmers in the name of economic development. The project led to displacement of peasants and the redistribution of the population, which ultimately brought about vehement protest and deadly conflict.

Despite these social struggles, the Brazilian government passed a second National Development plan known by the acronym POLAMAZONIA. Their objective was to redirect both public and private investment into areas with economic potential, namely large-scale farming and mining operations. According to the authors, the project embodies the typical “developmentalist paradigm” which views capital accumulation, foreign investment, and big economic projects as a means of achieving high rates of growth. Embedded in such a view was a preference for large, capital-intensive investments rather than for small, labor-oriented projects. The approach invoked a firm belief in advanced technology as a means to promote the general

The environmental and economic changes sparked social and political mobilization. Sporadic incidents of community protest grew into well-organized efforts, as previously ‘invisible’ populations united to resist threats to their livelihood. In local and state elections, people cast their votes for opposition candidates.” Sharing a new vocabulary and a similar set of goals, conservation and environmental activists participated in a new discourse that lent both visibility and legitimacy to the alternative proposed by small producers in the Amazon. The community movement was ultimately successful. By the end of the 1980s the direct links established with international lobbyists and the alliances forged with opposition political parties within the country empowered local groups with resources and credibility that they had never before enjoyed.

APPLICATION IN THE US

Studies in political ecology also reveal social and political dynamics in the context of the US agricultural system. Blaikie and Brookfield examined the expansion of industrial agriculture in the 1980s and the social response. In *Land Degradation and Society* (1987), they highlight the soil conservation movement as a social response to the rapid industrialization of American farming. Cockburn and Ridgeway called for a new theory to drive a research-based exploration of the human-affected changes in the natural environment, among them systems of energy production and food distribution. They titled this exploration *Political Ecology* (1979).

COMPETING DISCOURSES

Though neither considered political ecologists, Mary Douglas and Aaron Wildavsky provide insight into the power dynamics of communication, specifically with their

notion that differing perceptions of risk shape competing political discourses. *Risk and Culture: An Essay on The Selection of Technical and Environmental Dangers* (1982) describes how, though dangers are real in the sense that they have very tangible effects, the way we perceive and prioritize risk is a social and political process.

The authors also emphasize how images of nature and our related conceptions of the natural environment have always been political. Today we tend to think of nature as morally neutral due to, in their words, the “development of modern science and a whole package of other intellectual emancipations called modernization” (29). However, the limits of our perception are actually not much different from those of human ancestors. Where they politicized nature by inventing connections between moral transgressions and natural disasters, for example, conceiving a drought or an outbreak of disease a consequence of witchcraft or breaking social-taboos, we politicize nature by selecting what is natural, that is, what is inevitable, and what is not, that is, events that we can control. The authors explain that developments in science and technology have contributed to our idea of what ought to be normal or natural. They even go on to posit that, as such, the faith humans once placed in magic has been replaced with faith in technology.

Douglas and Wildavsky describe universal characteristics of the human species, that is, traits related to social organization that are shared by everyone. First, humans have a relatively narrow focus when it comes to environmental issues. Douglas describes this as a type of survival mechanism. The degradation of vital natural resources or the potential extinction of the human species are risks so great that no knowledgeable individual would accept them. To deal with this, we break them down into issues with a smaller scope to better process them. Furthermore, because we cannot attend to all of these component issues, we prioritize which risks to address.

Additionally, we make decisions based on a bounded rationality, that is, our choices are made based on the information we have. This means that the way we prioritize environmental risks is based on our conception of the natural environment.

The way we conceive the natural environment is in turn shaped by our surrounding institutions which can be grouped into two categories based on the locus of their power - the center and the periphery. The power dynamic between social groups operating from the center of society and those operating from society's margins is frequently addressed in the social sciences. According to Douglas and Wildavsky, the center and the periphery (borders), are arguing from different premises. They write, "Their views about risk are not to be considered as independent ideas or personal preferences so much as public statements topping different social structures. So long as their loyalties are turned toward centers or borders, people will buy a whole package of political judgements about nature, both human and physical, that go with center or border views" (174). They map out these premises using a mode of analysis called grid-group, which classifies these social institutions based on hierarchical organization, or "grid," and level of inclusiveness and insulation from the rest of society, or "group."

In other words, organizations classified as high-grid exhibit a rigid hierarchical structure; low-grid organizations are much more egalitarian. Organizations classified as high-group are very insular, inspiring a high degree of group loyalty and solidarity whereas those classified as low-group exhibit the opposite characteristics. Douglas categorizes organizations by measuring them by both variables. The examples of high-grid, high-group organizations include airline crews, garbage crews, and miners unions. They are clearly ranked and benefit the most from close collaboration. Craftsmen and traveling salesmen exemplify low-grid, high-group classification. They are unranked and unspecialized but still treated as a collective. Entrepreneurs

sense in this context, or that systemic change results from individual decisions and actions, which is also not the case.

Instead, they propose that states are information processing systems that assert their power by setting policy. In this context, it is these policies that shape the limits, forms, and organization as well as the environmental impact of food production and industrial processes in modern societies.

Focusing on the signals - among them complaints - and how they are amplified, distorted and damped draws our attention away from the technical details of ecological consequences of actions, individual decisions, class struggle, and theoretical considerations of power and force, to the social and political forms of policy making and implementation (1997: 28).

Groups within complex societies acquire power by communicating signals that amplify their own interests through the state system. The authors theorize that such communication is achieved primarily by coding the message in scientific terms, which impacts its reception in legislative, administrative, and judicial spheres of the state apparatus. “Because the rhetoric of scientific analysis is highly valued,” they write, “signals that achieve scientific status are highly amplified” (28-29).

Because proposed regulations are usually defined in terms of the best available scientific data, control of scientific production is also an important political tool in setting them at the legislative level, and implementing them at the administrative level. As such, “if interest groups can masquerade as providers of technical information or control the process, they can amplify their message and gain a large sphere of influence.” Regarding the judicial system, its function is to insure that proper procedure is followed, which is usually couched in terms of adherence to the scientific knowledge which governs the administrative processes. Neighbors’ objections “are powerless until they are translated into policy that curbs the process,” (32) they write.

The same paper (1997) examines the specific case of Murphey Farms in North Carolina, a hog corporation comparable to Prestage. The company's founder sits on the North Carolina State University board of regents, allowing him some ability to influence agricultural research agendas to study and support technologies that benefit big businesses. Furthermore, paralleling the situation in Chester Township, neighbors to Murphey hog confinements did not hear about them until plans for their construction was already underway, suggesting that groups also assert power by deciding who to include and who to exclude in the process of communication.

They explain that the case is indicative of a larger problem, a system in which "pivotal positions were simply traded among a group of politicians, agribusiness owners, attorneys, and state employees...rural residents expressed frustration and anger at the lack of respect for their concerns...as they have sought further for redress, and met further barriers, their frustration and anger has grown into a groundswell of organized opposition. Their signals had no way into the system - they were blocked at every turn" (1997:31). The example of Prestage, Inc. here in Poweshiek County certainly corroborates this theory.

The study ultimately reveals

a scheme in which processors communicate to providers of technology and policy makers. Meanwhile rural citizens communicate to policy makers to affect policy in their interests. The agricultural universities amplify the signals of processors and producers by providing scientific status for them, while they damp signals from citizens who object by labeling them as anti-

The process can be traced back to as early as 1850, when the national government approved a federal land grant to build a railroad in Illinois. Railroads linked farms in the Midwest with new markets on the East Coast and in Europe, motivating the development of commercial corn and wheat belts in the Midwest. Consequently, demand for agricultural commodities became set by these new markets rather than by local or regional needs, establishing the basis for the current national food distribution system (Cockburn and Ridgeway 1979).

The land grant set a precedent of state involvement in local agriculture. As the agricultural system became more nationalized, standardization and regulation from a central authority became increasingly necessary. The United States Department of Agriculture was established in 1862 under president Lincoln, who referred to it as “the people’s department” (cit). Additional land grants passed later that year furthered the state’s involvement in the agricultural system. The Morrill Land Grant Act was one of two statutes that allowed for the creation of land-grant colleges, which set a precedent for funding the development of agricultural technologies, which has since become geared toward aiding large-

independent producers and family farms fell as large-scale operations grew (Centner 2004). In 1974, there were 750,000 hog producers in the US. By the end of 1999, only 98,000 pork producers remained, representing 13 percent of the total number of producers 25 years earlier (Thu 2001). Currently there are 68,300 hog operations in the US. Pork producers that remain are increasingly large-scale operations, with 33,000 large-scale operations now accounting for 60 percent of total US inventory (USDA 2013).

As of 2010 census data, Iowa leads the country in pork production, contributing over 27 percent of the total US product. The state parallels the national trend toward concentration and vertical integration. In 1980, there were 65,000 hog farms in the state, averaging 250 hogs per farm. By 2005, though the number of hogs per farm had increased to 1,850, the total number of hog operations had decreased to less than 10,000 (Lawrence 2004).

Following the precedent set early on, the US Department of Agriculture has continued to pass legislation geared, at least nominally, toward promoting economic development. The laws typically favor large-scale national operations over smaller local farms, resulting in centralization, concentration, and a shift away from local control of production. In Iowa, at the state level, the Department of Natural Resources (DNR) regulates all livestock operations. According to CARES members, many members of the department also have an economic interest in corporate farms, contributing to relatively loose regulation policies. By only requiring that applicants score 50 percent of the total points on the master matrix, for example the application process encourages the construction of confinements and exemplifies how state regulations favor confinements over the concerns of local residents.

Underscoring the lack of local control, the DNR also has authority over county governments. In Poweshiek County, the Board currently consists of two Grinnell residents and

the demand for cheap meat. Producers

As these cases show, Iowa is no exception to the widespread trend of increasing mechanization. The current physical landscape has been shaped by industrial technology, forcing

Though studies show that intensive livestock operations are not actually more

like “green” and “environment” stemmed from the perception that the government was telling them how to farm.

On the other hand, they recognized that government action was really the only way to block agribusinesses and out-of-state corporations like Prestage Farms and to truly hold people accountable given changes in the agricultural system. For example, the Farm Bureau has proposed a system of what it terms “voluntary regulation” whereby environmental standards would be provided but it would be up to individuals to decide whether or not to abide by them. But even the CARES members who oppose government intervention in general admitted that would not work. “People are not conscientious enough,” one member said.

THE DOMINANT DISCOURSE

The discursive landscape has similarly been shaped by the idea that the benefit of economic development outweighs any environmental or social costs, a third theme common in political ecology. Issues are framed in quantitative economic terms, which consequently prioritize the former over the latter. Those in power - agribusinesses, corporate lobbyists, legislators with a connection to the industry - stay in power by perpetuating this discourse through advertising, cheap prices, land grants, and favorable federal and state agricultural policies. Thus, while intensive livestock production is not more economically efficient, that is, cost-effective than production on a smaller scale, those who profit from them have the ability to maintain the perception that it is. This is a clear example of Thu and Durrenberger’s signal amplification.

But extensive literature shows that this is clearly not the case. Beginning as early as the 1940s with Walter Goldschmidt’s *As You Sow*, numerous studies have linked the

activity and local tax revenue. However, CAFOs typically employ far fewer people than non-industrial operations. Numerous studies indicate that the industrialization of the livestock industry has in fact ultimately resulted in the production of a similar number of hogs with fewer farmers. Workers who do migrate for employment often place a larger burden on local public services than their wages yield in taxes (Ikerd 2013).

Additionally, many confinement operations are headquartered out of state, meaning the profits that are generated are distributed elsewhere, outside the community, as is the case with Prestage. A number of CARES members also brought up that Prestage is taxed as a farm operation though by all intents it is an industry. Because agricultural property taxes are significantly lower than industrial taxes, the community receives lower revenue than its members believe it should. So it is truly a myth that the benefits of economic development outweigh the environmental and social costs associated with intensive swine production.

Within the larger framework of political ecology, Douglas and Wildavsky, though not political ecologists, analyze of competing discourses from the center and the periphery, shedding light on the reason for this discrepancy. According to them, the center and the periphery, or border, are arguing from different premises. Public interest groups fall among organizations that operate from the periphery. Defining it as a group “that seeks a collective good, the achievement of which will not selectively and materially benefit the membership or activists of the organization,” Douglas and Wildavsky classify a public interest group as them as low-grid, high-group. The objectives of such groups are explicitly global in range and include regenerating moral fervor and counteracting, in her words, a global conspiracy of evil. Public interest groups achieve their aims through small-scale organization, hold values against big technology, big industry, and big organization, and are on guard against outside infiltration. Public interest

groups are also aligned with sectarian cultural values, notably including the expectation that life in the future will undergo a change for the worse if the current system is not reformed (1982).

Based on this definition and these characteristics, CARES can be considered a public

state legislature to impose and renew a moratorium on the construction of new CAFOs that effectively lasted a decade (Avery 1999).

Wendell Berry, American poet, critic, and farmer effectively describes this mindset as agrarianism, “primarily a practice, a set of attitudes, a loyalty, and a passion...a culture at the same time it is an economy.” The agrarian mind, he writes, is not regional or national, let alone global, but local. “It depends and insists on knowing very particular local histories and biographies.” It is “always a subsistence economy before it is a market economy.” Furthermore, “the stability, coherence, and longevity of human occupation require that the land should be divided among many owners and users” (2002:42-43).

But these values have been displaced by the individualistic motives of the current political economy, a global industrial system where the motives of the market economy are prioritized over local culture and the land is increasingly concentrated in the hands of a few, large-scale operations. It is low-group, high-grid, impersonal and bureaucratic. In contrast to ecological holism in line with the local outlook, the current system champions specialization; diverse family farms have given way to massive soy and corn monocultures. We might even go as far as to say that issues of non-point source pollution, environmental health, and public health, being somewhat more community oriented, are overshadowed by specific data on point-source pollution and individual human health.

So how has CARES managed to fight its way into this shifting political economy? It is first a diverse group, offering multiple perspectives and strategies for change. While many are native Iowans who subscribe to the community mindset and local way of life, other members are newer to the area and offer a different outlook. In this sense, the group bridges the community-individual divide. The presence of Grinnell College is likely responsible, drawing in faculty and students from outside the community and accounting for a higher level of education and affluence than other rural communities in Iowa. Their affluence also contributes to the

Bibliography

- Albrecht, Don E.
1997 The Mechanization of Agriculture: A Historical Case Study of the Implications for Families and Communities. *Culture and Agriculture* 19(1&2):24-32.
- Allen, Brenda J. and Philip K. Tompkins
1996 Organizational Communication *in* An Integrated Approach to Communication Theory and Research. Salwen, Michael Brian and Donald W. Stacks, eds. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Avery, Alex
1999. North Carolina Hog Farming and Water Quality.
http://heartland.org/sites/all/modules/custom/heartland_migration/files/pdfs/14394.pdf, accessed January 23, 2013.
- Berry, Wendell
2002 The Whole Horse: The Preservation of the Agrarian Mind. *In* The Fatal Harvest Reader: The Tragedy of Industrial Agriculture. Andrew Kimbrell, ed. Pp. 39-48 Sausalito, CA: Foundation for Deep Ecology with Island Press.
- Blaikie, Piers M. and Harold Brookfield
1987 Land Degradation and Society. New York: Methuen & Co. Ltd.
- Bryant, Raymond, and Sinead Bailey

- Dillman, Don A., and Daryl J. Hobbs, eds.
1982 *Rural Society in the US: Issues for the 1980s*. Boulder, CO: Westview Press.
- Donham, Kelly
1998. The Impact of Industrial Swine Production on Human Health *in* *Pigs, Profits and Rural Communities*. Thu, Kendall M., and E. Paul Durrenberger, eds. Pp. 73-83. New York: SUNY Press.
- Douglas, Mary
1966 *Purity and Danger: An Analysis of the Concepts of Pollution and Taboo*. New York: Routledge.
1992 *Risk and Blame: Essays in Cultural Theory*. New York: Routledge.
- Douglas, Mary and Aaron Wildavsky
1982 *Risk and Culture: An Essay on The Selection of Technical and Environmental Dangers*. Berkeley: University of California Press.
- Dudly, Kathryn Marie
1996 The Problem of Community in Rural America. *Culture and Agriculture* 18(2):47-57.
- Friedland, William H.
1984 Commodity Systems Analysis: An Approach to the Sociology of Agriculture. *In* *Research in Rural Sociology and Development: A Research Annual*. Harry K. Schwarzweller, ed. Pp. 221-235. Greenwich, CT: JAI Press.
- Goldschmidt, Walter
1947 *As You Sow: Three Studies in the Social Consequences of Agribusiness*. Montclair, NJ: Allenheld and Osmun.
- Goodman, David, E. Melanie DuPuis, and Michael K Goodman
2012 *Alternative Food Networks: Knowledge, practice, and politics*. New York: Routledge.
- Greenberg, James B. and Thomas K. Park
1994 Political Ecology. *Journal of Political Ecology* 1(1):1-12.
- Grinnell Herald-Register
2012 May 28 – April 02 2013.
- Hassanein, Neva
1999 *Changing the Way America Farms*. Lincoln NE: University of Nebraska Press.
- Hightower, Jim
1973 *Hard Tomatoes, Hard Times*. Cambridge, MA: Schenkman Publishing Co.
1979 The Case for the Family Farmer *In* *Political Ecology*. Alexander Cockburn and James Ridgeway, eds. Pp. 209-216. New York: New York Times Book Co, Inc.
- Ikerd, John
2013 The Inevitable Economic, Ecological, and Social Consequences of CAFOs. Unpublished presentation, World Society for Animal Protection. Lower Leighton, Wales, UK.
- Iowa Agricultural Committee
2010 Ch. 65 Animal Feeding Operations
<https://www.legis.iowa.gov/DOCS/ACO/IAC/LINC/Chapter.567.65.pdf>, accessed April 13, 2013.
- Iowa Department of Natural Resources

- N.d. Animal Feeding Operations. Iowa Department of Natural Resources.
<http://www.iowadnr.gov/Environment/LandStewardship/AnimalFeedingOperations.aspx>,
accessed October 24, 2012.
- N.d. Master matrix. IDNR.
<http://www.iowadnr.gov/Portals/idnr/uploads/forms/5428043.pdf>, accessed April 13,
2013.
- Jackson, Wes
2002. Farming in Nature's Image *In* The Fatal Harvest Reader: The Tragedy of Industrial
Agriculture. Andrew Kimbrell, ed. Pp. 65-75 Sausalito, CA: Foundation for Deep
Ecology with Island Press.
- Kinsolver, Barbara
2008 Animal, Vegetable, Miracle. New York: Harper Perennial.
- Lawrence, John
2004. Hogs per Farm, Iowa. Iowa State University.
<http://www2.econ.iastate.edu/faculty/lawrence/PorkStat/porkstat.htm>, accessed May 10,
2013.
- Morrison, Jon.
1998. The Poultry Industry: A View of the Swine Industry's Future? *in* Pigs, Profits and
Rural Communities. Thu, Kendall M., and E. Paul Durrenberger, eds. Pp145-155. New
York: SUNY Press.
- Pollan, Michael
2009 Food Rules: An Eater's Manual. New York: Penguin Books.
2008 In Defense of Food: An Eater's Manifesto. New York: Penguin Press.

