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THE TRANSITION TO RESILIENCE: A COMPARATIVE CASE STUDY OF TWO COMMUNITIES

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THE TRANSITION TO RESILIENCE: A COMPARATIVE CASE STUDY OF TWO COMMUNITIES

DISSERTATION

A dissertation submitted in partial fulfillment of the
requirements for the degree Doctor of Philosophy in the
College of Arts and Sciences
at the University of Kentucky

By
John D. Johnson

Lexington, Kentucky

Director: Dr. James G. Hougland, Professor of Sociology

Lexington, Kentucky

2015

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ABSTRACT OF DISSERTATION

THE TRANSITION TO RESILIENCE: A COMPARATIVE CASE STUDY OF TWO COMMUNITIES

This dissertation examines the question of how communities understand their risk related to global economic and environmental problems and how communities respond to those risks. Specifically, using comparative case study, this dissertation examines the sustainability efforts of two communities, Oberlin, Ohio and Berea, Kentucky. Both communities have created advanced sustainability efforts over more than a decade of work and both communities have well-developed partnerships with the colleges in their communities. It finds that communities are responding to both global risks related to climate change and energy price volatility, but also are making efforts to resolve more localized social problems and economic challenges. This research also demonstrates that communities are particularly interested in increasing their community resilience related to local energy and food production, but also have concerns with addressing the persistent inequalities that exist in their communities.

Keywords: Transition Towns, Resilience, Sustainability, Climate Change Adaptation, Alternative Economics

THE TRANSITION TO RESILIENCE: A COMPARATIVE CASE STUDY OF TWO COMMUNITIES

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Chapter 1: Introduction and Literature Review

Background

...the dynamic of risk society rests less on the assumption that now and in the future we must live in a world of unprecedented dangers; rather, we live in a world that has to make decisions concerning its future under the conditions of manufactured, self-inflicted insecurity. Among other things, the world can no longer control the dangers produced by modernity; to be more precise, the belief that modern society can control the dangers that it itself produces is collapsing – not because of its omissions and defeats, but because of its *triumphs*. (Beck 2009:7-8)

Communities have unprecedented ability to participate in the global marketplace, but also see the dangers of being dependent on that marketplace. The post-World War II growth, expansion, optimism and exuberance set a mood in the U.S. that has since expanded around the globe through the equally exuberant desire to replicate this mood through globalization. Individuals, neighborhoods, communities, regions, states and nation states (in advanced countries) have experienced this exuberant mood, but have also witnessed the reversal of these growth opportunities in decades of economic stagnation and growing inequality (Gordon 2012, Cowen 2011).

This is the context from which the work in this dissertation emanates.

Communities that were once able to ride the wave of growth, industrialization, the Interstate Highway System and the proliferation of consumer goods have increasingly found themselves victims of globalization or simply to a changing economic order where industrial production has taken new forms. The central question of this work is how do communities respond to these changes and transition to a higher level of resilience to the multiple threats they face?

The risks that communities face are not only economic, but are environmental as well. In recent years, communities from around the world have experienced increasing instability of the interaction of financial and environmental systems. The intersection of economic systems at the levels of local, state and federal governments moving toward greater instability and impending ecological collapse at multiple scales is a combination that indicates that our world economy and ecology are, according to many analysts, moving very fast in the wrong direction. And these issues are very much related. Many of the economic experiments that our global society has been engaged in, culminating in the mass appropriation of neoliberal capitalism (Foster 2010) are directly related to our impending economic and ecological collapse. The Millennium Ecosystem Assessment Report (2005) made it clear that there is no question that we are moving in the wrong direction with our ecosystems and are on a path of degradation and destruction.

Our food system is equally in disarray. Subsidized by cheap oil and generous direct subsidies for many commodity crops, we have produced a food system that is dangerously vulnerable to oil price volatility. It is also a source of dysfunction in our healthcare system, an increasingly large part of our Gross Domestic Product (GDP). Since crops such as corn, soy and wheat are highly subsidized (Environmental Working Group 2015), and those crops are mostly used to create highly processed foods, and feed for large-scale meat production, our food system is a source of ill health that burdens our healthcare system and will also burden any attempt to reform it. Subsidies also support large farms and mono-crops that are ecologically destructive

and are related to a variety of unwelcomed side-effects like colony-collapse disorder and stream and ocean eutrophication. On both the national and global level, we have also reached a point of significant interdependence of food, irrigation, water and energy, where increased food production requires the extraction of water at unsustainable rates. At the same time our water extraction demands larger amounts of energy, our energy extraction demands larger amounts of water, setting up a dangerous trajectory World Wildlife Federation 2014.

We are also plagued with a global energy crisis. While conventional oil production has peaked, we continue to move down the same energy path of reliance on “extreme energy” fossil-fuels, the extraction of which are increasingly dangerous to human and ecological health. The extraction of tar-sands through open-pit mining, natural gas through hydraulic fracturing and deep-sea oil drilling carry risks that are not fully acknowledged by the corporate actors involved and not fully understood by science or the public. All of this is taking place in a context where it is well understood that the greenhouse gasses produced in the extraction and burning of these fuels is contributing to climate disruption and ocean acidification (IPCC, 2012).

Research Questions and Outline

This is a study of two communities, both of which have made serious attempts to deal with their roles in a changing economy. While the communities differ in important respects, they are similar in that both of them are the home of private colleges whose faculty and students have an influence on discourse. This dissertation is an attempt to understand how that discourse is developing and how the two communities employ

various community assets to change the discourse on economic development to include a wider range of issues and values.

The dissertation opens with a discussion of Ecological Modernization Theory (EMT) and some of the responses to it. EMT is the theoretical background to many of the common approaches to reconciling our current economic and political arrangements to the task of improving environmental outcomes. My intention for this section is to explore the ways in which the private and public sectors have responded to the growing evidence of environmental degradation and our role in it. These approaches form a backdrop to which the Transition Town movement and towns in transition that are not part of the Transition movement form a distinct contrast. There are elements to EMT that can be identified in my respondents, and those themes will be developed in chapters 4-6.

Chapters 3-6 detail the empirical work of the study. Chapter 3 provides background for each of the study communities. Because many of the details that form important background for these communities are developed naturally in Chapters 4-6 examining specific research questions, Chapter 3 provides the background that is important to understanding the cases, but is not developed in Chapters 4-6. Chapters 4-6 also provide answers to the research questions and conclusions based on comparisons of the two communities.

The research questions that guide the empirical work for the dissertation are as follows:

1. What kinds of risks do community members see as being most threatening to their communities? (Chapter 4)

2. What governance mechanisms get in the way of resilience? (Chapter 4)
3. In what ways do the study colleges contribute to these transition efforts and how and what types of knowledge are shared between the colleges and the larger communities? (Chapter 5)
4. How do respondents envision a resilient community and how does that relate to the major sectors of market, state and community? (Chapter 6)

Chapter 4 is an exploration of risk in the study communities. It examines community members' perception of risk and provides a diverse picture of what those risks are and how they are communicated to the larger community.

I find in Chapter 4 that respondents have concerns about the role of government, at multiple levels, to aid in mitigating potential risks. These concerns were specifically centered on the use of regulation to effectively encourage resilient practices and also the use of regulation to hinder appropriate practices. Also present were concerns for local economic development and the community's ability to effectively guide those efforts in a sustainable way and particularly to include those who are at the economic margins. I also find that as community members consider their risks, they also often engage in what I have called "hedging" – a practice which involves reframing their efforts toward community resilience in a way that emphasizes their assets and minimizes the difficult and personal work of thinking about and managing the risks related to issues such as ecological degradation and climate change.

Transition is the topic of Chapter 5 and this work explores the issues of social learning and college/community collaboration and how these tools are used by each community as they work toward transitioning to a more resilient way of being.

I find that both colleges are contributing to their respective communities in substantive ways. Those contributions include practical projects such as student volunteer hours in community projects and consulting for individual organizations, but also the more complex task of planning for the community's future and sharing high-level knowledge that results from teaching and research in these organizations. This chapter also makes it clear that these efforts go completely unnoticed by many community members and that there are tensions within the communities related to the perceived lack of investment from these colleges. Though this chapter was not specifically about resilience, elements of resilience such as diversity, modularity and systems thinking emerged through the interviews reported here. Both communities have made efforts to include diverse stakeholders in their communities and both have struggled with effectively making that happen as they endeavor to overcome historical tensions and the perceived class gaps in their communities. This is somewhat ironic as both communities began as progressive advocates for the poor, blacks and Appalachians.

Chapter 6 is an exploration of how community members understand resilience and the marks of a resilient world. It also explores how community members understand the interaction of market, state and community and the role they will need to play in the transformation of these social institutions.

I find that respondents are not satisfied with the current social, political and economic arrangements but there is divergence of opinion about whether or not current systems can be modified satisfactorily to ameliorate the problems or if these

systems need more fundamental and radical change. Respondents are working toward an economy that not only provides for their financial needs in the context of participatory government, but they also want the opportunity for meaningful labor and for that opportunity to be available more widely in the respective communities than it is presently.

In the concluding chapter I attempt two tasks. First, I attempt to connect the findings in chapters 3-6 to the academic literature on those topics and I attempt to go beyond the responses of the community members and interpret those responses in terms of some of the broader understandings of risk, transition, resilience, economics and governance. In the final section of the chapter, I provide several recommendations that could be taken up by my study communities or other communities attempting similar transitions and also directions for further academic research.

Introduction to Literature Review

At the heart of these problems discussed in the introduction is a concern for how they came about and how we will propose to solve them. This section will review some of these answers. Beginning with a discussion of ecological modernization theory and some of its classic critiques, I will then examine sustainability from an organizational perspective. I will then introduce the Transition Town movement and summarize its basic intents and strategies.

One of the points of distinction in this work is that between sustainability and resilience. I will use both terms in this review of literature based on the works I am engaging with and I will define how I think these terms relate to each-other later in the

chapter. Since I consider the terms to relate to different facets of the same phenomenon, and because my respondents are also working with both ideas in their own understanding of their community efforts, I will use both terms throughout this work.

Ecological Modernization

Ecological Modernization Theory (EMT), perhaps as much as any other, has garnered generous support and pointed criticism. In this essay I will first briefly sketch EMT from one of its earliest expressions, Mol 1997. I will then describe some of its purported benefits and the strengths and weaknesses that have been surfaced by the debate surrounding EMT. Following this I will locate EMT in the context of a broader vision of what a sustainable society might look like.

There are at least four distinguishing characteristics of EMT as articulated by Mol (1997). First, science and technology are viewed as central institutions that have the potential to bring about ecological reform. Science and technology are not merely to blame for our ecological problems, but have the potential to be the foundation of a new ecological rationality that replaces dated and destructive (end of pipe) technological fixes, with technologies that are more environmentally sound. Secondly, EMT stresses the value of market dynamics in ecological reform and the role of “innovators, entrepreneurs and other economic agents” (1997:141) in this restructuring. Particularly after the Brundtland Report (1987), sustainable development has been seen as being compatible with economic growth. An important aspect of this relationship of

economic growth and ecological rationality is the use of standards for environmental improvement by certification organizations, insurance companies and credit institutions.

Third, there is a distinction in the understanding of the role of the state. In EMT, the state is still indispensable, but moves from command and control to steering, and from centralized to decentralized. Finally, the position of social movements within EMT move from getting environmental issues on the agenda of corporate and government efforts, to guiding and holding accountable corporate and government interests in their motivation toward ecological rationality and environmental responsibility. This shift changes the role of social movements and the relevant organizations from surfacing the problems that exist to assisting already motivated institutional actors that have internalized the need to be responsible to the larger ecological setting.

It is important to note that EMT emerged as a response to the movement toward demodernization or deindustrialization. After the publication of *Limits to Growth* in 1972, much of the thought within environmental circles questioned the idea that we could continue growth and the entire modernization project into the future and that economies would need to demodernize and deindustrialize to avoid ecological catastrophe. EMT emerged to question this idea that the “fundamental reorganization of the core institutions of modern society” (Mol and Spagaarten 2000:19) was necessary.

These four characteristics form the foundation and basis for understanding the potential of EMT and some of the criticism of it. I will begin to examine some of the

points of tension that surround EMT with an examination of the first three of these characteristics.

The technological optimism is one of the most promising aspects of EMT, but also perhaps the most vulnerable. The promise of replacing dirty end of pipe technology with better, more efficient tools of production is easy to buy into. Better technologies are all around us and under continuous development, including and especially in the form of renewable energy and radical energy efficiency. Furthermore, we have always been able to innovate ourselves out of many of the energy and resource dependence problems we have faced up to this point, and many economists and sustainability writers are optimistic about the likelihood that “technological breakthroughs will serve as the means to address each and every environmental problem that arises, allowing society to overcome natural limits and all socio-ecological challenges” (York and Clark 2010: 481). And indeed, many of these technologies will be needed in the next society, a point I will elaborate on later. There are, however, at least two problems with this technological optimism. First, it tends to ignore the root problem, which is political and economic, thus maintaining the current political-economic order and its relationship with nature (York and Clark 2010). Second, the creation of technology for the efficient use of resources does not necessarily mean that fewer of those resources will be used. Jevons’ Paradox, originally articulated by William Stanley Jevons in *The Coal Question* ([1865], 1906), holds that with every improvement in the efficiency of the use of a resource, more of the resource is used, not less of it. Because each new steam engine was more efficient than the last, the use of coal

became cheaper and thus it became more desirable to use (Foster, Clark, and York 2010). In capitalist economies, efficiencies in resource use are usually outstripped by economic growth, so the gains in efficiencies, rather than reducing the amount of a resource that is used, actually encourage greater use of the resource (Clark and York 2005). Thus the greater efficiency of the use of resources does not bode well for averting ecological crisis, if that resource is inherently polluting or if the extraction of the resource is ecologically damaging. In the case of something like using oil and coal for fuel, finding new technologies to use it more efficiently or placing mileage standards on vehicles, provides little hope for avoiding the problems caused by these fuels, and particularly those caused by CO₂ emissions (York 2012, Zehner 2012).

The second characteristic of EMT, the decoupling of economic growth from natural resource inputs, is a complex issue to parse. This has become one of the most contentious issues in the broader sustainability discussion: to what extent can our current economic system be maintained in the face of ecological crisis and scarcity? Many books and treatises have been written on this issue in the past several decades including Hawken's *The Ecology of Commerce* and Hawken, Lovins and Lovins' *Natural Capitalism*, two of the most popular and contentious books for those arguing against EMT. The central message of these works is that radical efficiency can be used as a tool to bring consumption in capitalist societies in line with resource availability. Here, I will present two of the most popular arguments against the legitimacy of a "green capitalism."

The treadmill of production is one of the most popular theories in environmental sociology. Originally published in Schnaiberg's (1980) *The Environment: From Surplus to Scarcity*, the treadmill of production theory brings together a complex array of ideas and variables. The accumulation of capital after World War II created investments in industries that were dependent upon natural resource extraction. While the accumulation of capital leads to the uncertainty for laborers because of investment in technology reduces the need for laborers, as the overall level of welfare increases, so does the need for natural resource extraction. Because of the sunk costs of technology, corporations have to continue to increase production to pay for the technology or other replacements for labor, which continues the need for more energy and natural resource extraction (Gould, Pellow, and Schnaiberg 2004).

A second argument raised against so called "green capitalism" is what James O'Connor calls the "second contradiction" of capitalism. The first contradiction from Marx is that through the constant lowering of wages, capitalist economies undermine their ability to maintain demand for their products because there are fewer and fewer workers who can afford them, an idea built into the treadmill of production theory. The second contradiction is a cost-side contradiction. O'Connor (1994) describes two ways in which this contradiction manifests itself. The first is when profits are maintained or restored at the expense of degrading the conditions of production, whether that is infrastructure, soil, equipment, etc. The second is when social movements demand better conditions for health, soil or other elements that have been degraded under the

neglect of profit-maximizing corporations and become an additional cost to the employer or industry.

Both of these perspectives, the treadmill of production and the second contradiction of capitalism, point to the inherent weaknesses of the capitalism as a viable economic system capable of sustaining itself over time. Adding ecological sustainability or green chemistry or technologies to this flawed system, argue the critics, will not fix the underlying problems that make capitalism doomed to collapse under its own weight.

The third characteristic of EMT is a different relationship of capital to the state. To avoid the state becoming an “environmental Leviathon” (Mol 1997:41), the state takes the role of redirecting the process of production and consumption by incentivizing good corporate environmental behavior from a decentralized position of influence. From the perspective of those who think that control should become more local, this new role of the state could be a good thing, avoiding the “geo economic” position of Gore and others looking to strong state intervention in mandating, commanding and controlling a new green regime, particularly by the U.S. or other Western states (Luke 1999). A decentralized state is also advocated by scholars such as Kemmis (1990) and Ostrom (1999) who view local communities as having the capability to govern their places in ways that maximize their long term sustainability over against regulatory agencies that govern from a distance and know little to nothing about the people or the contours of the place being governed. This new or continued decentralized state does not address, however, the rule of technical experts or “deterritorialized souls” (Luke

1999:3) from a technological rule guided by means-end rationality and placing profits above individual or community well-being. Furthermore, York, Rosa, and Dietz (2003) have found no relationship between state modernization efforts that place the state in the role of encourager of ecological rationality and positive improvement in environmental outcomes as measured by the ecological footprint (see York and Rosa 2003:276 for a review of these studies).

In addition to these criticisms of the basic characteristics of EMT, there are other challenges to the theory. In an article dedicated to challenging EMT, York and Rosa (2003) raise four particular objections to EMT, or more specifically, four issues in which EMT must demonstrate some level of success before societies invest in this process of modernization. The first is that EMT must demonstrate that there are positive environmental outcomes for societies that embrace modernization, not merely that these societies modernize. The discussion above regarding Jevons' paradox illustrates the dilemma here. It is not enough to demonstrate that societies modernize, and to assume that the efficiencies gained from that modernization result in positive environmental outcomes. The relationship between modernization and environmental outcomes is unclear and sometimes troubling. Research in the environmental Kuznets curve (EKC) hypothesis has also demonstrated some difficulties with linking modernization with cleaner economies and clear environmental benefits. This hypothesis argues that environmental quality deteriorates in early stages of modernizing (industrial) economies and improves as GDP increases and economies modernize and adopt better technologies and move out of industrial economies and

toward economies based more on services (Dinda 2004). Dinda's research has called into question some of the EKC measures, including mixed results in air, water and solid waste measures and demonstrated that there is no agreement on the income level in which environmental degradation declines.

Secondly, York and Rosa maintain that EMT must show that modernizing states lead to ecological improvements in high frequency. EMT advocates use case studies to demonstrate modernization's effect on ecological outcomes, but these studies tell us little about the "likelihood of frequency" (2003:277) of these effects. Third, EMT must demonstrate that industries or firms that can demonstrate positive ecological outcomes are not in turn creating problems in other places in the system. They use the Netherlands fallacy to illustrate that an industry or state can clean up its environmental act, but externalize some of its economy's negative impacts beyond its borders. It is widely understood that many industries and localities improve their environmental impacts by moving their most destructive corporate members somewhere else. EMT, argue York and Rosa, must show a higher standard. Fourth, EMT must show that the pace of eco-efficiency outpaces overall economic growth. Jevons' paradox again comes into play here. Unless efficiency outpaces growth, there will be no demonstrable improvement in ecological outcomes.

These are some of the themes that confront EMT as a way of moving forward out of societal patterns of unsustainability toward something more modern and ecologically benign. But where does this leave us with understanding the usefulness of EMT as a blueprint for ecological renewal and health? Do these arguments irreparably

damage EMT, or are there other ways of assessing the usefulness of EMT? In this next section I will call attention to some of the problems with rejecting EMT as a way forward. I will discuss the significance of the issue of disproportionality in considering EMT. Finally, I will close the section by asking the question, if not modernization, what? If modernization is not an acceptable path to travel, what alternatives do the critics propose?

Neither critics nor proponents of EMT spend time examining just how uneven the polluting tendencies are among the various industries. Freudenburg (2005) has shown that there exists a “diversion of attention from industries whose disproportionalities have become unchallenged, thus offering these industries “privileged accounts” (90). He demonstrates that industries such as the chemical and primary metal industries (mining) cause highly disproportionate ecological disruption, regardless of how this is measured. He examines pounds of pollution, toxicity of pollution, and Gini coefficient measures and finds highly disproportionate pollution of these industries compared with other industries. He also examined the contributions these polluting industries provide to employment and the overall economy, and found that the contribution as a percentage of GDP is minimal. This idea of disproportionality is an area that deserves more attention related to the effects of modernization. If eliminating or modernizing one or two industries could have severely uneven effects in eliminating the toxic effects of a modern economy, this reality probably should make up a more central part of the debate about modernization.

Finally, I consider the alternatives to EMT. If EMT does not provide acceptable outcomes, what then do we do? Mol and Spagaarten (2000) assert that “all major, fundamental alternatives to the present economic order have proved unfeasible according to various (economic, environmental and social) criteria” (23) while York and Rosa (2003) contend that “our options remain open and that the future is not set” (274). The question is, open to what? Perhaps the most comprehensive set of answers from EMT critics comes from Foster, Clark and York (2010), offering some helpful suggestions that get us closer to an answer to that question. They offer the “elementary triangle of socialism” (417) which is 1. social ownership; 2. social production organized by workers; and 3. satisfaction of communal needs. They envision a time when reliance on the automobile is greatly reduced by “massive funding of public transportation” including light rail and changes in urban development and infrastructure (438), which, in some senses, sounds very much like EMT. Ecological revolution is the overriding solution where “rational planning by associated producers” (411) is the rule of production. But these solutions raise questions as well.

It seems that whatever the economy or utopia that resides beyond the invisible line that lies between an unsustainable, capital driven economy and a new economy where a new set of values, not limited but including a new ecological rationality that allows for flourishing communities and the preservation of Earth and its resources for subsequent generations, we will need only the modernizing ideas and technologies that EMT emphasizes, but also more comprehensive social change as demanded by critics of EMT (Clausen, 2007).

There may be a way out of this dilemma that, to some degree, harmonizes these perspectives. Yanarella and Levine (2011) agree that “in the long run, global capitalism by its own design must fail” (68).” Their criticism of Hawken et al. and the general principles of EMT is bound up in the path-oriented nature of this perspective that “leaves larger systems fragmented and untied to an overriding sustainability principle or holistic process” (58). Thus the answer to this dilemma, or at least part of an answer, is in folding the advantages, technologies, materials, processes and discoveries of modernization into a larger, more comprehensive understanding of sustainability based on “a robust understanding of sustainability, a cultural paradigm embracing postmaterial values and commensalist practices, and political coalitions or regimes built upon a consensus built around strong sustainability” (61).

This perspective allows us to accept the gains provided by the best of the modernization process, without binding society to the incrementalist, fragmented and limited aspects of EMT. It questions the legitimization of continued capitalist hegemony in the name of progress and demands a fuller expression of sustainability.

Sustainability and Organizations

Sustainability is an essentially contested idea that has been and continues to be considered in practically every profession and academic field. In the early 1990’s a substantive discussion in organizational studies developed and has contributed and applied important ideas to the debate. In this section, I would like to review some of the key ideas in this literature related to sustainability that contribute important ideas that will underlie this study of how a constellation of organizations, with colleges at the

center, can progress toward a sustainable world. As would be expected, this literature is filled with contradictory perspectives emanating from many different standpoints. In examining this literature, I plan to explore two axes of the debate: voluntary versus coerced change and comprehensive versus technical approaches. I think it will become obvious in this discussion that the ongoing debates in the organizational sustainability literature mirror many of the debates in the sustainability literature that is not organizationally based. The exploration of these tensions will illuminate some of the important considerations in moving from our current realities to a world redesigned around sustainability principles.

Voluntary vs. Coerced Change

One of the debates that rages within all discussions around sustainability is whether or not the most effective change can come from voluntary action on the part of individuals, organizations and governments or whether change must be mandated by executive orders, agency policy and/or statutory regulations. On the one hand, some studies cast doubt on the idea that corporate greening can be coerced effectively with mandatory enforcement. Short and Toffel (2010) found that organizations are unlikely to follow through on self-regulation when there is an explicit threat of sanctions. Fineman (2000) found that regulators often satisfice, creating a “technicist, shallow green perspective” (62, cited in Jermier et al., 2006:632) on environmental improvement. York, Rosa and Dietz (2003) and York and Rosa (2003) report findings that indicate state environmentalism (as measured by treaty ratification) has had little effect on positive environmental outcomes. On the other hand, almost all innovation in

in product development in organizations undertaken for environmental reasons were stimulated by government regulations (current or expected) or *market demand* (currently or immanently expected) (Green, Morton, and New 2000). Jermier et al. (2006) conclude that without “effective monitoring, third party audits and the power to sanction, members are far less likely to provide environmental protection” (635). Finding the correct balance of incentives, regulatory surveillance and the explicit threat of sanctions has not been and will not be an easy or uncontroversial task.

Scale will also clearly be an issue that will continue to be contentious. In the U.S., there is an ongoing debate about the role of government in the economy and the role of state versus federal governments that will not be resolved quickly. There is also good reason to believe that governance decisions should take place on the most local level possible, while being nested in state and federal systems that offer national and international standards as well as accountability and recourse for inappropriate action (Kemmis 1990, Ostrom 1999).

Scale and Sustainability Efforts

A second significant tension in all serious conversations about sustainability deals with the scale, approach or level on which sustainability should be carried out. The technical or “technological optimism” (York and Clark 2010:484) approach to sustainability represents sustainability problems as technical problems to be solved, leaving issues such as relations of production, social justice, strong sustainability, institutional reform, culture change and general system reform un-addressed or ill-

addressed in the process (York & Clark 2010, Yanarella and Levine 2011, Jermier et al. 2006).

One approach to achieving sustainability is that dubbed by Jermier et al. (2006) New Corporate Environmentalism (NCE). New Corporate Environmentalism was inspired by Paul Hawken and his 1993 book *The Ecology of Commerce*. This book was an attempt by Hawken, an entrepreneur and CEO, to sound a wake-up call and a challenge to business as usual in the corporate world. Beginning with a gloomy tale of the state of ecological destruction, brought on in large part by corporate irresponsibility, Hawken challenges corporate actors to rapidly move their organizations to a “restorative economy” (14) and re-orient current practices and motivations to radical change toward sustainability. The book has inspired various approaches to moving organizations toward sustainability. NCE is one of those approaches.

Jermier et al. define NCE as

rhetoric concerning the central role of business in achieving both economic growth and ecological rationality and as a guide for management that emphasizes voluntary, proactive control of environmental impacts in ways that exceed or go beyond environmental laws and regulatory compliance (2006:618).

Several key ideas in this definition highlight the tension between comprehensive and technical approaches to sustainability. The word “rhetoric” is used because part of the criticism of NCE is that it represents strong reformism at the level of rhetoric, but weak reformism at the level of implementation. Many of the proponents of NCE do not recognize a contradiction between “ecological rationality” and “economic growth,” which is of great concern to those who seek comprehensive sustainability. NCE is a

“voluntary” measure that goes beyond regulation because at its foundation it sees the need for business to recognize its destructive tendencies, taking a leadership role toward reform. Even from this short description it is obvious that the analysis of NCE as a movement is complex. Jermier et al. (2006) indicate that NCE is a “rational management” approach and to a great extent that is true, but if Hawken’s work is considered as the founding document (Jermier et al. 2006, Forbes and Jermier 2010) and “rational management” is understood in the formal sense of action involving efficiency as a primary value, then this critique may not be accurate.

Still, there are many voices in the organizational literature on what sustainability should be. Starik and Rands (1995) contend that a sustainable world requires ecologically sustainable societies, cultures, political and economic systems, organizations and individuals, indicating every unit of society must be involved in this transformation. Other writers issue calls to question consumerism (Hirschman and Holbrook 1992) and to better corporate leadership, not just imitation (Bansal and Roth 2000). Shrivastava (1995) argues that because of their role in economic development, financial resources, technological knowledge and institutional capacity, organizations should be at the forefront of moving sustainability forward. But he cautions that “as ecosystems provide the foundations of existence for both biological entities and organizations, sustainability of ecosystems must have higher priority than the economic sustainability of specific organizations” (910), questioning the anthropocentrism of the current economic order. Similarly, Jennings and Zandbergen (1995) insinuate a strong sustainability perspective indicating that sustainability requires “fitting organizational

systems into broader social and ecological systems in such a way that each contributes to sustainability” (1018).

Others, recognizing that organizations/corporations must be involved in these efforts, also point to the limits of corporations. Organizations cannot always respond to need for changes because the relevant technology (Green, Morton, and New 2000) or relevant institutional or regulatory framework is not available or within their control. This also points to the need for significant structural modification, due to the fact that "local, national and international political administrative systems...tend to not be organized to address root causes” (Jermier et al. 2006:624). This reality calls for a “green public sphere” (638), grassroots innovation, the elimination of powerful lobbying by corporations and for citizens and governments to set the conditions under which commerce operates (Forbes and Jermier 2010). While many efficiency measures can be beneficial to a corporation’s bottom line (Hawken 1993, Porter and Kramer 2006), investing in sustainability can put corporations at a competitive disadvantage.

It is possible to look at organizations throughout the globe and find numerous examples of greenwashing and corporate malfeasance related to environmental concerns. It is possible to find examples in the organizational literature of weak reformism that does not reflect a mature understanding of the problems we face as a global society. It is also possible, however, to find a strong foundation for arguing that the status quo is not satisfactory and a comprehensive approach to sustainability is necessary, and those early authors, continuing through the more recent ones, provide a variety of perspectives from which we can lay a foundation for moving forward.

A Critical Perspective on Organizations and Management

Because of the proliferation of organizations and their accumulation of resources, there is a strong sense in which within the twenty-first century economy, organizations have come to dominate social life. In this section I will present a critical perspective on organizational domination. While communities are dependent on organizations for employment as well as many goods and services, a critical analysis of organizations will provide a basis for understanding why communities may want to empower their citizens to make decisions that are not solely dependent on the benevolence of organizations.

One of the inherent problems with a society so dependent upon large organizations is the risk of naturalizing the “transaction/functionalist ethic” that is so common in management and economic education (Humphries and Grant 2005:6). The danger is that this type of system can bring the colonizing effects with which Habermas and others have been concerned. While people have bought from and sold to each other for many millennia, there are aspects of our market economy that have become naturalized, particularly related to understanding people in functionalist ways.

One of the consequences of this colonizing effect, recognized by critical theorists in the Marcusean tradition, is that discourses such as those that are imbedded in corporate culture are capable of producing a humanity that is one dimensional “where thought and existing alternatives are reduced to a unilinear dimension” (Ogbor 2001:590). In this society, alternatives are controlled by those who “exercise control over instruments of social domination (P. 591).” Ogbor leaves the discussion in the

abstract, but one can imagine the discussion identifying issues such as how and where work is done, modes of production, how a workforce is managed, controlled or who gets to set the direction of a society or an organization as issues that are controlled by an elite group of people.

A related issue is how people in this society relate to organizations. Faith in the interests and values of the organization go beyond the mere identification with the organization to individuals also assuming their personal identity from the organization. Perhaps this is the extreme result of the one dimensional man in that workers understand their sole identity as being part of the organization and fulfilling a specific role for that workplace and for society as a whole. In this scenario, many workers lose sight of any role outside of the narrow confines of their role as a laborer, or a cog in the machine. And this is not necessarily limited to the lower and working classes; the same attitudes and loyalties can exist just as well in faculty or corporate executives.

Perhaps at the heart of this discussion is the centrality of corporate capitalism as an institution.

Deetz...[maintains] that capitalism “has become the most central institution in modern society (1992:2).” Deetz argues that capital, rather than just becoming the medium through which society achieves its production and consumption, comes to exert such an influence through corporates that all aspects of our being come to be oriented to values furthering corporate objectives rather than other objectives. The point is not that the corporate objectives are necessarily undesirable, but that these objectives increasingly dominate all others. (Grice & Humphries 1997:419)

These are not trivial issues only for philosophers or those who have the spare time to worry about this sort of thing. They are, rather, at the heart of what it means to be human and what we have given up to serve corporate culture. These are issues that

apply to everyone caught up in the global, corporate, consumer culture and which have consequences for how we design and redesign our world related to sustainability. In light of such issues, it is appropriate to consider whether community-driven initiatives can provide an effective counterbalance to corporate domination.

Transition Town

Over against the background of systemic decline and serving as an example of a concerted approach to organizational learning is the Transition Town movement. In 2006, the first transition town initiative began in Totnes, Devon in the Southwestern portion of England (Hopkins, 2008).

Totnes is a town with a population of about 8,000, and has been known for its progressive efforts and environmental activism. Before the official beginning of Transition Town Totnes (TTT), the efforts began with a series of events, the first of which was a screening of the film *The End of Suburbia*. The “Unleashing” of TTT was held on September 6, 2006, and was attended by more than 350 people. Out of that “Unleashing” and subsequent meetings over the next year emerged several groups that would provide leadership in specific areas. Those groups include Heart and Soul, dealing with the psychology of change; Energy; Health and Medicine; Arts; Local Government Liaison; Economics and Livelihoods; and Project Support, composed of members of the other groups and functioning similar to a steering committee (2008).

Built on the progressive values already in place, TTT quickly gained support and cooperation from groups such as the Totnes local government, the Chamber of Commerce, Schumacher College, and the Totnes Renewable Energy Society, a sister

project to TTT. A “Business Swap Shop” was organized to allow businesses to see what efficiencies could be gained by better organizing waste products and raw materials. In June of 2007, the Totnes Pound was launched as a local currency that could be spent in many of the local shops around Totnes in an effort to strengthen local economies and prevent leakage of financial resources to other communities (2008).

By 2008 initiatives had been started in Australia, Canada, England, Germany, Ireland, Italy, the Netherlands, New Zealand, Scotland, South Africa, Spain, Sweden, USA, and Wales. As of July 2015, there are 1000 registered initiatives and 479 “official” initiatives in more than 34 countries (Transition Network 2015). The transition town movement is a dynamic, decentralized and revolutionary movement. Describing the movement using readily available ideas and language, however, is a bit of a challenge. In one sense it is a movement toward sustainability; a radical approach to making a community more resilient to the dual challenges of peak oil and climate change. It is also an economic development strategy of sorts, seeking to relocalize economic ventures and to regain the lost and forgotten element of self-sufficiency. I will attempt to describe the movement under the categories of resilience, economics and challenges. My description is from Hopkins (2008) and I assume, at least in broad terms, his work reflects the goals, values and strategies of the movement. The *Transition Handbook* is a conceptual and strategic guide for those looking to start a transition initiative or to begin to make their own family or community more resilient.

Resilience

At the heart of the transition town movement is the desire to make communities more resilient. It is a response to the issues introduced in the beginning of this chapter; the combination of rapid global financial and ecological collapse. Transition communities seek to gain resilience from these outside forces not through withdrawal, but a deep sense of engagement with the forces that benefit and dominate their lives. Resilience is probably the most developed idea in the *Transition Handbook* and is defined, developed and distinguished in a variety of ways. Early in the book, Hopkins defines resilience as “the ability of a system, from individual people to whole economies, to hold together and maintain their ability to function in the face of change and shocks from the outside” (12). It is the changes mentioned above to which these communities seek resilience. They desire the ability to maintain a standard of living in the midst of food, energy and economic disruptions that left unresolved will surely lead communities all over the world to poverty and diminished populations. Hopkins states that there is “no protection” from economic globalization other than resilience (14). The term “economic globalization” is used throughout the text as an intentional way of distinguishing between the negative net results of economic globalization, but not throwing out the idea of globalization altogether as a completely negative process.

A second definition offered later in the work defines resilience in terms taken more directly from the ideas and language of ecosystems. It is “the capacity of a system to absorb disturbance and reorganize while undergoing change, so as to still retain essentially the same function, structure, identity and feedbacks” (54). It is important to

note the use of the term identity here, as one of the motivations of the transition communities is to create and maintain local cultures that are not hidden from outside influences, but that can maintain favorable aspects of their traditions and contributions. Hopkins maintains that resilience goes far beyond “the better known concept of sustainability” (54). He does not offer a definition of sustainability, but the examples that are given are clearly examples of weak sustainability (Yanarella 2011). Resilience is summarized again as being more prepared for a “leaner future, more self-reliant, and prioritising the local over imported” (54).

Resilience can be understood in a variety of ways. The above discussion of Hopkins’ (2008) work is an appropriate starting point for an understanding of resilience. The categories of diversity, modularity and tightness of feedback will be important to this project. Walker et al. (2004) provide a commonly used definition of resilience as “the capacity of a system to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity, and feedbacks.” Other than just general understanding of what resilience is, it is also important to question whether the project communities are moving toward specified or general resilience. Specified resilience is related to a specific set of sources or shocks, whereas general resilience is related to various kinds of shocks, including completely novel ones (Folke et al. 2010). Both communities have specific goals and plans that point to a specified resilience [i.e., The Oberlin Project’s goal of a 20,000 acre network of land for food, energy and materials (The Oberlin Project 2012) but it is an open question as to whether there is an effort to achieve general resilience and what that might entail.

Related to value issues, Cote and Nightingale observe that a focus on abstract understandings of resilience ignores the underlying “cultural values, historical context and ethical standpoints” (Cote and Nightingale 2012:480) that allow certain positions and outcomes to be privileged over others. Thus they assert that attention to power/knowledge relations opens up issues about equity and justice and that allows us to formulate questions about “which resilience outcomes are desirable, and whether and how they are privileged over others” (480). Or in other words, as Cote and Nightingale have asked, what should be made more resilient and for whom?

Three features of a resilient system are highlighted: diversity, modularity and tightness of feedbacks. These features continue the theme based on ecosystem ideas of resilience. Diversity includes the number of elements in a system including “people, businesses, institutions or sources of food” (55); the number of connections between these elements and the diversity of functions. Diversity of functions is a direct reference to economic functions and speaks directly to the idea of industry and sources of income, but it also speaks to diversity of land use and biodiversity within that land use. It can also refer to diversity between systems so that each community will assemble its own “solutions, responses and tools” (55). The transition movement does not offer a one-size-fits-all approach to resilience, community building and economic change but rather seeks to build on current assets and set priorities for action.

Modularity refers to “the manner in which the components that make up a system are linked” (Walker and Salt 2007, cited in Hopkins 2008:55). Modularity protects people, communities and systems from being victims of shocks in other parts of

the system by allowing a part of a system to “more effectively self-organize in the event of a shock” (Hopkins 2008:56). This is directly related to the number of connections between entities in the diversity of a system as more internal connections reduce the vulnerability to disruptions of wider networks. I would note here that this does not rule out any advantage of globalization and outside connections, but rather seeks protection from the vulnerability in over-reliance on outside networks. Hopkins gives the example of local food systems being resilient to disease because they are physically independent. He adds that transition communities engage with the wider world, but “from an ethic of networking and information sharing, rather than mutual dependence” (56).

Tightness of feedbacks refers to bringing the consequences of our actions and systems closer to home and our own awareness. It is principally about reducing the risk of crossing thresholds without noticing in a timely fashion (Walker and Salt 2006, Hopkins 2008). The recent crises in our food systems, housing and banking bubbles could be seen as examples of problems that could have been avoided through earlier detection or would have been of limited consequence with tighter feedback loops.

Economics

One of the central characteristics related to how economies should operate from within a transition perspective is the need for smaller scale and local production. In an age of globalization this is a counterintuitive stand that probably is missed, not well understood or ignored by mainstream media, politics and economic thought. It is clear, however, that the movement is not about closed economies, but rather to close economic loops when possible and to produce locally what can be produced locally

(Hopkins 2008:68). For many communities food will be the most “sensible” place to begin, but other essential items such as “building materials, fabrics, timber, energy and currencies follow” (69). In keeping with the cautiousness related to closed economies, avoiding globalization and parochialism, Hopkins adds that transition towns are not interested in “complete localisation, but rather about the building of resilience in both worlds, North and South - two processes running in parallel and in a mutually supportive way” (69).

Another important factor related to resilience and economics is the need for good design. Hopkins emphatically states

You build the out of town supermarket and three years later the high street is deserted. In essence, human beings before cheap oil used good design, and networks of relationships to make things happen. Since cheap oil we have lost all that. We will need to rebuild it (61).

Design implies proactive action preceding local or economic crisis. The implication is that cheap oil has allowed us to act without thinking deeply about the consequences of those actions, knowing that our lives will always be subsidized by cheap, easy access to fuels. Those subsidies, however, are already failing and will continue to do so with significant consequences. I discuss peak oil below, but for the purpose of this discussion, Hopkins notes that the Energy Return on Invested (EROEI) in the 1930’s was more than 100:1, and globally on average is now about 20:1 (50-51). This is a staggering change that most of our social institutions have failed to consider or come to grips with but will have a very serious impact on our lives, in terms of ecology, governance, economics and culture, into the foreseeable future.

Challenges

One of the challenges of the movement emphasized by Hopkins is the contention that peak oil and climate change should be intentionally engaged together, and this is enough of a priority in Hopkins' work that he spends the entire first chapter elaborating on the significance of each of these issues and the necessity to approach them as two mutually informing issues. Climate change is, at some level, widely understood in our society, but peak oil is not well understood among the general public. There is a growing consensus that we are either at peak production of oil or will be within a decade. Once new production flows are fully offset by production declines in other areas, we will have arrived at a global peak of production that will have serious consequences for life as we know it. Discussions about peak oil used to happen on the fringe, but since global production has reached what seems to be at least a temporary peak of conventional oil in May of 2005 at 74.2 million barrels a day (27), the discussion has become much more mainstream. At the Association for the Study of Peak Oil conference in Cork, Ireland, in September 2007, U.S. Secretary of Energy James Schlesinger said: "Conceptually the battle is over. The peakists have won. We're all peakists now" (30).

While it is true that the use of hydraulic fracturing to produce shale oil has complicated the production of both oil and natural gas, it has not changed the finiteness of those resources, nor has it contributed to the increasing costs of these resources. As conventional oil peaked, it has been replaced by much more expensive oil from offshore drilling and hydraulic fracturing. While total global production has not peaked,

conventional oil has been replaced with very expensive non-conventional sources. The problem posed by peak oil is ultimately not only the availability of oil, but rather one of price. Conventional oil, pumped out of conventional oil wells is inexpensive and many of these wells and fields have produced oil for decades. Shale oil is a completely different form of production, with decline rates between 40 and 70 percent year over year (Hughes 2014). Because of these steep decline rates and the high cost of drilling one of these wells (Hefley 2011), the cost per barrel is much higher than conventional oil, and this presents a significant burden for a global economy that was built on the assumption of inexpensive oil.

One of the complexities of this debate centers on the Energy Information Agency's (EIA) long-term estimates of oil and gas production. The estimates offered by the EIA related to both natural gas and oil have been notoriously inaccurate, and more recently have been inflated. For example, the EIA's original estimate for natural gas resources in the Marcellus formation was 410 trillion cubic feet, which was later changed to 84 trillion cubic feet. In Poland, the EIA's original estimate for shale gas resources was 187 trillion cubic feet, and that estimate was later written down to 1.3 trillion cubic feet. Similar inaccuracies have been noted for shale oil, such as the estimate for the Monterey formation of 15.4 billion barrels, later written down 96% (after actual geological exploration) to .6 billion barrels (Hughes 2014). A team of researchers from the University of Texas Austin has spent three years on a project examining shale gas and oil resources and published results in various journals including the *Proceedings of the National Academy of Sciences*, *Oil and Gas Journal* and *Energy*,

also has come to a very different set of conclusions than the EIA. The University of Texas Team conducted analysis that was at a resolution 20 times finer than the resolution used in the EIA's research. This leads the EIA's figures to be "far too optimistic" according to Tad Patzek of the University of Texas research team (quoted in Inman 2014:30). Researchers for the EIA have admitted the limitations of their methods and have also indicated that they would revise their methodology in their 2015 Outlook (2014). The importance of this for communities responding to these issues is that energy prices are continuously volatile and the community efforts detailed in this work are efforts to insulate themselves from this volatility that has a negative effect on these communities.

Climate change is an end-of-tailpipe problem, whereas peak oil is an into-fuel-tank problem (Hopkins 2008:39). On one level, these problems could be conceived as complementary, since coping with both could lead to some of the same solutions. The solutions preferred by the transition community are conservation, relocalization and energy descent (37). Based on the analysis that Hopkins is relying on, our global society will have a net reduction in available energy over the next century, meaning our use of energy will necessarily have to decline. Solutions to these problems, however, are not necessarily always complementary. Hopkins points out that peak oil can lead to developing new fossil fuel or other climate aggravating technologies that carry us into the future, ignoring the dangers of climate change. On the other hand, "a recession caused by runaway oil prices will blow responses to climate change out of the water" (39). Dealing with climate change will take a lot of money and global collaboration, and

during a recession, it is often the case that economic growth will take precedence over climate change solutions.

Another key challenge to the transition movement is the telling of stories and changing stories that have been central to our culture and to our idea of progress as it has developed over many centuries. Hopkins indicates that telling stories is central to his book (14). Those stories are distinct from the stories we have been used to hearing, or just assuming, such as the future will be more prosperous than the present, economic growth can continue indefinitely, common goals are unthinkable and that economic globalization is inevitable and we have all given consent. He believes that this transition can bring an economic, cultural and spiritual renaissance (15); a creative engaging and playful process (50) that brings the re-emergence of communities and culture (53). Indeed from his account this is already happening in some of the communities that have adapted transition practices. Hopkins indicates, despite what might be a typical reaction to the prospects of life after peak oil, the future with less oil could be preferable to the present, but creativity in the design of the transition will be vital (53). This plays into the idea above related to design after the close of the age of cheap oil.

Perhaps Korten summarizes this issue most satisfactorily in *The Great Turning*:

People will say that 'Korten wants to change everything'. They miss the point. Everything is going to change. The question is whether we let the changes play out in increasingly destructive ways or embrace the deepening crisis as our tie of opportunity...It is the greatest creative challenge the species has ever faced (2006, cited in Hopkins 2008:70).

The Relationship Between Resilience and Sustainability

The place of resilience as a concept unto itself and also in relation to the broader concept of sustainability has become contested. In particular, how resilience is defined, who gets to define it and whether it is competing with sustainability or compatible with sustainability has become the subject of some debate. Two papers in particular summarize the important contours of the debate: (MacKinnon, 2013 and Yanarella, 2014).

Mackinnon and Derickson summarize their critique of resilience in three points. First, because resilience is based in ecology and systems theory, they argue that it is conservative when “applied to the social sphere” (254). Resilience is primarily about stability of systems, so it tends towards resistance to social change. Second, resilience is “externally defined by state agencies and expert knowledge in spheres such as security, emergency planning, economic development and urban design” (254). Third, they argue that the application of resilience is “misconceived in terms of spatial scale” (254) and is based on an implicit local/global divide. This critique implies that while localities may be responsible for making themselves more resilient, they actually lack the political power and resources to make themselves more resilient.

While these critiques have a legitimate place in the discussion of how resilience is used in various sectors, it has a strong bias towards use in a top down sense and not as a grassroots tool for developing communities. The first critique potentially has relevance to this project, but there is little evidence from the data collected for this

study that these respondents see resilience as socially conservative, but rather as a potentially socially transformative idea.

Yanarella and Levine's article serves as a warning against the dangers of resilience thinking to the extent it neglects strong sustainability. They trace the history of the term from the ecology literature and provide a rubric of resilience and its use in ecology, urban studies, organizations, computer and networking, engineering and psychology. Using three contemporary examples of books that rely heavily on resilience thinking, they demonstrate how the term has been used and the dangers it possesses when used inappropriately. The three works used for this task, arranged in an ascending hierarchy in terms of their closeness to pursuing strong sustainability, are McKibben's (2010) *Eaarth: Making Life on a Tough New Planet*, Homer Dixon's (2006) *The Upside of Down: Catastrophe, Creativity and the Renewal of Civilization*, and John Barry's (2012) *The Politics of Actually Existing Unsustainability: Human Flourishing in a Climate-Changed, Carbon Constrained World*.

Yanarella and Levine's critique of resilience thinking boils down to its fatalistic, defensive and reactionary nature. Resilience has become a replacement for sustainability "which fails to carry strong sustainability's sense of comprehensiveness, much less survivability..." Because the life "at the level we have come to expect and enjoy is no longer possible...we are resigned to circle the wagons and look for means and methods to survive as best we can for as long as we can" (204). It is this "circling of the wagons" that Yanarella and Levine find to be particularly offensive, preferring instead strong sustainability "which is built upon many scales of resilient components,

systems, materials, and especially processes” (204). Though Barry gets closest to strong sustainability and has a much stronger sense of the need to build a longer-term political process, he is critiqued for succumbing to short-term planning for crisis instead of a longer-term, comprehensive approach:

...his work reveals a proclivity to allow the looming disruptions from the impact of peak oil and mounting dangers of climate change as, of necessity, foreshortening the time horizon for any collective political action to build resilient towns and communities against these major threats without struggling for a more ambitious political, economic, and cultural agenda that part of the book lays out. Such are the costs of resilience as a pragmatic realist strategy. (203)

As an alternative, Yanarella and Levine offer strong sustainability as a process that is not “directly aimed at addressing current ills, but rather it is offered as a constructive process that generates competing scenarios out of resilient, sustainably-oriented means where those ills never even appear. To develop and employ such a process is our only real alternative” (208).

Ultimately, I agree with Yanarella and Levine related to strong sustainability being built upon resilient components as referred to earlier. The way I understand resilience and will use it in this work, which is also similar to the way my respondents view resilience, is as a component of strong sustainability. I draw from Barry (2012) to illuminate three assumptions of resilience that distinguish it from sustainability, and particularly the sustainable development narrative that is grounded in ecological modernization, and that Yanarella and Levine are positioning themselves against. First, resilience admits a lack of predictive capacity. This can be read negatively or pessimistically related to the quality of the future, or it can be understood as having a

more agnostic posture, not willing to be completely optimistic or pessimistic. Second, resilience thinking does not assume the stability or expansion of energy flows. A transition to renewable and non-fossil-fuel energy sources will be inevitable, but not smooth, as energy price volatility will continue to be a detrimental factor to development and growth. Third, the occurrence of a “full-spectrum” (83) civilization crisis, though not inevitable, seems likely.

Given these assumptions of resilience, I do not see it as being completely separate or distinct from sustainability, but rather as a component of sustainability. Scott Cato (quoted in Barry 2012:83) adds helpful clarification: “Sustainability is a feature of the system, resilience is the guiding design principle; permaculture is the design manual.” I understand resilience to be best understood as an emergent property of strong sustainability. Resilience is an outcome of building according to strong sustainability principles. In other words, resilience is what you get in the process of pursuing strong sustainability.

In order to examine these questions of how communities respond to the threats I have outlined above and seek higher levels of resilience, I conduct two case studies of communities that have been pursuing resilience for a long period of time. The following chapters outline this research.

Chapter 2 – Conceptual Framework and Methodology

Introduction

This research project will be a descriptive case study and this chapter will detail the data collection methods used, the themes that were developed to organize the findings and the methods I used for analyzing the data collected in the research. I will begin with a statement of the research questions used in the study.

1. What kinds of risks do community members see as being most threatening to their communities?
2. What governance mechanisms get in the way of resilience?
3. In what ways do the study colleges contribute to these transition efforts and how and what types of knowledge are shared between the colleges and the larger communities?
4. How do respondents envision a resilient community and how does that relate to the major sectors of market, state and community?

The following section will introduce the three specific areas I intend to explore in this work: risk, transition and resilience. These three areas will be explored to better understand the basic question of what motivates communities to begin a transition and to understand what it is that they are attempting to transition to.

Risk

The theory of risk society comes from the writings of Ulrich Beck and colleagues (Beck 2000, 2009). It begins with questions about the intentions, meaning and purpose of modernity and progress and it also questions the status quo leadership of those who have been instrumental in creating, defining and promulgating our modern situation. In fact, the idea of the risk society questions the role of business, politics, law and science and guarantors of the social order and begins with the “suspicion that those who endanger the public well-being and those charged with its protection may well be

identical” (Beck 2000:215). An idea that I will pick up on in the final chapter is that how we as members of a global society act and proceed can no longer be decided by experts and this raises questions about the “authority of the public, cultural definitions, the citizenry, parliaments, politicians, ethics and self-organization” (218).

Because we have seen the negative results of expert leadership, guidance and judgment, and because increasingly our security seems to be lacking, Beck and colleagues see opportunity for change. Beck sees risk in the three general categories of environment, economics and global terrorism (Beck 2009) and Chapter 1 provided an overview of these risks. In the last fifty-plus years we have observed an increase in environmental disturbances that result from taking too much from the planet in terms of resources and putting too much back in terms of sinks. While we have solved some of these problems at the local level, we continue to create new risks that manifest at local and global scales. Both risks of terrorism and economic instability were brought closer to the awareness of at least those in the global West in the early years of the twenty-first century, providing evidence of both the growing magnitude of financial crises and the pervasiveness of economic stagnation. As individuals and societies, we have also discovered that many of these conditions have come as unintended consequences of our actions. These crises are not evidence only of our failures, but of our successes as well (Beck 2009).

In the midst of this recognition, we face the uncertainty of what knowledge, whose knowledge and how to arrive at the platform from which we may be able to see causes, solutions and a way out. At the same time, the sources of our ontological

security, namely the state, science and the economy, are crumbling (Beck 2009:45); a reality that Beck argues is ignored by sociologists. This leaves us with a great deal of empirical uncertainty about where these dynamics might be heading on a global level, but Beck (2000) argues that these forces will drive a higher level of understanding and engagement.

My argument interprets what others see as the development of a post-modern order in terms of a stage of radicalized (second phase) modernity, a stage where the dynamics of individualization, globalization and risk undermine the first phase of industrial nation-state modernity and its foundations. Modernity becomes reflexive, which means, concerned with its unintended consequences, risks and their implications on its foundations (226).

Indeed, there does seem to be some evidence of this reflexivity. Though its effectiveness varies, there are efforts in many localities around the U.S. and the world that are making efforts to challenge the hegemony of the consumer treadmill, question the sources of food and the multinational corporations that control much of its production, respond directly to the financialization of our economic system by a ruling elite and successfully stand against the use of radical technologies like mountaintop removal and hydrological fracturing. This project will examine two communities that have taken humble but bold approaches to engage in some of these activities. These communities modify a question that Beck (2009:46) asks: How can individuals [and communities] accomplish something that states, science and economies cannot? To some degree, this question is answered in Beck's own writing (2000) in claiming that "the script of modernity is yet to be rewritten, redefined, reinvented. This is what the theory of the world risk society is all about" (212). In various and simple ways, this

script is being rewritten around the world. The question is will it be effective in a timeline that makes a difference.

Transition

Since this project is about two communities that are making efforts to transition to a different mode of being, I will detail in this section some of the ideas I bring to the project and some of the foundation for my instrument questions. The areas I will explore here that I think will be useful to explore these transitions are social learning and college/community partnerships.

Social Learning for Sustainability

It is in the spirit of holographic learning that I now turn to a discussion of social learning. Social learning is essentially the same, in many respects, to organizational learning, other than it transcends organizational boundaries. Social learning happens across organizational boundaries, thus it is an appropriate as a lens for understanding what kind of learning may happen in this project. It inherently involves organizational learning as many of the actors in community groups related to this dissertation will represent one or more organizational actors in a partnership representing multiple organizations.

Here I borrow from the framework for social learning developed by Dyball, Brown & Keen (2007). Three of the strands of their framework are reflection and reflexivity, systems orientation and systems thinking, and integration and synthesis.

Reflexivity is a “process of iterative reflection that occurs when we share our experiences, ideas and environments with others” (183). It is a process that occurs on

the personal, interpersonal, community and social levels as we create common vision, set goals and performance indicators and evaluate the impacts of laws, markets and policy outcomes.

Dyball et al. see this as an iterative process of diagnosing, designing, doing and developing. Diagnosing is beginning where people are and asking “What is?” Designing is about adding new ideas, skills and content and asking the question “What could be?” Doing is testing the old and new together and asking “What can be?” Developing is about evaluating and learning from the process and asking “What next?” For reflection to be successful, it is necessary to have mechanisms that allow us to see what “otherwise might be invisible” (185).

A systems orientation and systems thinking involve understanding one’s systems or variables of interest in the context of the other systems in which they interact. The focus in systems thinking is on “patterns rather than events” and on “processes rather than end points” (185). It requires ongoing monitoring of the effects of decisions that have been made and a willingness to change course depending on that feedback. Complex systems can change very suddenly and cannot necessarily be controlled by our best designed manipulation. “A belief that complex systems can be manipulated with a high degree of certainty is simply a delusion” (186). This delusional behavior can be seen in the attempts to control a financial system that has grown too complex and out of control to manipulate successfully. This is also becoming clearer in relation to our changing climate and ecology.

Following from systems thinking, I borrow a third area from Dyball et al., labeled integration and synthesis. The complex nature of learning requires participants to use frameworks that are holistic and integrative. Frameworks that link people in informal roles and networks represent horizontal integration, whereas frameworks that relate to larger economic and structural issues such as governance and management represent vertical integration. The goal of integration and synthesis is not consensus or the lowest common denominator, but to understand reality in its complexity. Culture can become a blind spot if an “avenue for critical reflection” (Ison 2005, cited in Dyball et al. 2007:183) is not available.

College/Community Partnerships

Colleges and universities often occupy places of prestige and significant local political power. They often own large tracts of lands in their communities and play an important part in community governance. The colleges in the two target communities in this project both occupy important social places in their communities. Oberlin College has approximately 3,000 students in a town of 8,286 and Berea has approximately 1,500 students in a community of 13,561 residents (United States Census Bureau 2010). Because of the political power inherent in these institutions relative to the surrounding community, it is important for colleges (in general) to approach partnerships with care and respect. These communities were chosen for two major reasons. First, they each have extensive visions for transforming their communities. They are not interested in surface level change, but rather fundamental change toward resilience. Second, both communities are very prominent and recognized at the national

level for their efforts. Berea and Oberlin Colleges are regularly recognized in the Association for the Advancement in Higher Education's (AASHE) weekly Bulletin, and each of these communities have been recognized in numerous ways for their efforts toward becoming more resilient. The following section will detail an approach to understanding and evaluating the college community partnerships in this study using the work of Bowers (2008), Smith and Katz (1993) and Walshok (1999).

Higher education organizations have history, experience and expertise that can be useful in thinking about the future and in setting a strategy. Two particular aspects of this offered by Bowers (2008) are that of detailing needed reform and clarifying what is to be conserved.

Living in a culture where our ideas about our physical environment and our political systems have been shaped more and more towards destructive practices and technocracy as discussed above, the higher education community has the opportunity to proactively influence its own campus community, as well as that of the larger community, by dislodging dominant ideas, assumptions and ideologies (Smith and Katz 1993) through research, teaching and public leadership.

Although communities may benefit from the intellectual capital and leadership from higher education organizations, it is also necessary to understand that these organizations are not the only source, nor the authoritative source of knowledge. Walshok (1999) proposes that colleges and universities should view themselves as conveners of knowledge. There are many other sources of knowledge throughout any community that can be brought to the table for insight and wisdom in the community

planning process. It is possible and probably common that city planners joined with experts from higher education can skew a planning process toward a narrow scientific rationalism. Because logic and scientifically constructed empirical knowledge can achieve hegemonic power over other ways of knowing (Healey 1993), it is important for higher education organizations to see themselves as conveners of knowledge and the weight of their role should not be seen as more important than those of other community partners (Lederer 2007).

Resilience

One of the study communities is a registered Transition Town community (Berea). Both communities, however, are on a path towards transitioning from one kind of community to another in much the same way described in the above section on Transition Town. To further define the idea of transition and resilience, I use elements from Dyball et al. (2007) and Tidball and Kransny (2007). Specifically these elements are 1. Negotiation and collaboration; 2. Creating opportunity for self-organization.

Negotiation and Collaboration

It can appear from the perspective reflected above that communities can come to these issues without facing conflict and serious disagreements. Such a situation is not likely to be the case. Conflict is an inherent part of the process. It should not be seen as a bad thing but part of the normal process of thinking about and debating the merits of a shared future. If handled properly, conflict can be a positive aspect of the planning process because it can identify potential problems and resolve them before they become problems. The perspectives of various community members can be brought

together to question and sharpen the way forward for the community. Dyball et al. add two important conclusions about conflict. Conflict is part of the process, not “an outcome, a barrier or an excuse” (188). And it is a matter for negotiation, not where the conversation stops. Examining negotiation and deliberation in the two focus communities will be an important part of this project.

Creating Opportunity for Self-organization and Adaptive Governance

How the two target communities self-organize and structure participation and engagement will be important to this project. Tidball and Kransny (2007) observe from their study of community greening that it is possible to bring communities together, even after disaster, and create various types of capital including financial, physical, and human leading to social capital. It is also important to note that community participation may look very different at the various stages of planning or redevelopment (Dyball et al. 2007). In other words, not everyone will need to or want to be involved at every stage of planning, but if the opportunity is not structured appropriately, this could bring confusion or marginalization from the project.

The policy decisions inherent in these projects involve more than just technical considerations, but moral judgments as well (Hendriks, 2009). Typical systems of representative democracy also do not successfully integrate the perspectives of non-citizens and future generations, reducing ecological problems to partisan conflict and fostering short-term thinking. As an alternative to this, successful transition management should go beyond scientific expertise to include local and tacit knowledge,

provide spaces to discuss issues and allow participants to formulate solutions in their own ways (2009).

As technocratically oriented governments and governance systems have evolved, “planners and managers blur the distinction between the worlds of economic production and social interaction, thus making it difficult for many to distinguish between the priorities of the economic system and those of their own lives” (Fischer 1990:47). Indeed, for many in contemporary culture, they may not be able to make a distinction at all. “At the most basic level, this ‘colonization’ of the life-world promotes the instrumentalization of human life itself: Human beings are largely treated as “means” for the achievement of economic and technological imperatives” (47). As the technological issues become more dominant, discussion is diverted away from the underlying value issues.

Adaptive governance involves institutions that are polycentric and nested, quasi-autonomous units that operate at multiple scales (Folke et al. 2005). “They involve local as well as higher, organizational levels and aim at finding a balance between decentralized and centralized control” (449). Thus vertical arrangements can strengthen local systems when they are connected to regional or global institutions, but also can be stifled by this verticality if national laws contradict local practices (Folke et al. 2005).

In addition to these criteria, adaptive governance for environmental management must also be intentionally cross-sectoral. No particular type of ownership, whether private, public or communal, guarantees the appropriate governance of an ecosystem (Dietz et al. 2003). In fact, I am in agreement with Ostrom (1996) when she

argues that the divide between Market and State or between Government and Civil Society is a conceptual trap, resulting from artificial walls created by disciplinary allegiances. Putting these criteria together, it is clear from the empirical literature that rules can be created that are credible and result in high levels of compliance, such as the Maine lobster fishery (Dietz et al. 2003, Ostrom 1999). Rules must be allowed to be flexible, however, as inflexible rules put too much stock in the current state of knowledge and do not allow adequate flexibility.

Dietz et al. (2003:1910) summarize the necessary criteria for the successful use of adaptive governance. First, analytic deliberation is dialogue between scientists, resource users and interested publics in order to take note of informed analysis and key information regarding human/environmental systems. Second, nesting implies that the institutional arrangements should be “complex, redundant and nested in many layers” (1910). They point to the catastrophic environmental failures when central governments have sole authority over resources and are bound to ineffective and outdated governance rules. Third, there is a need for institutional variety that employs hierarchies, markets and community self-governance and using a variety of decision rules to “change incentives, increase information, monitor use and induce compliance” (1910).

Data Collection

Between May and November of 2013, I conducted 28 interviews with 29 individuals, 15 in Berea and 13 in Oberlin. These interviews generally lasted between 40 and 90 minutes and yielded 592 pages of transcripts. The subjects of my interviews

were staff and faculty from both colleges, elected officials, and staff members from local and regional nonprofit organizations. I began with staff and faculty members involved in sustainability related work, and also with the leaders of Sustainable Berea and the Oberlin Project. In Oberlin, I connected with a staff person who provided me with a list of persons who I should consider for interviews. In Berea, a member of Sustainable Berea provided me with a list of active members who would be good candidates for interviews. I asked each of my subjects' advice for whom I should talk to related to this project and they proved generous in their recommendations. I sent 6 invitations that were non-responsive or that could not be scheduled for other logistical reasons.

The interview questions were divided into three categories – transition, resilience and college/community collaboration. The first category explores some of the social dynamics and learning behind each community's transition toward resilience. The second category of questions explored how respondents understand resilience, the risks that get in the way of resilience and the relationships between market, state and community. The third category examined how the colleges and community members pursued resilience together, how the colleges were involved in contributing knowledge and conflicts that existed in their existence together.

In addition to the interviews, my research and the process of conducting in-depth interviews yielded more than 30 documents of interest that provided context and corroboration for the interviews. These documents included journalistic articles from within and outside of the organizations in the study, planning documents, documents

produced by consultants, a student thesis, and documents produced by the study organizations to strategically analyze their communities.

Analysis

The interviews were transcribed and manually coded using the software package Atlas ti. Selective coding (Charmaz 2000) was used to identify both unique themes and common themes that emerged from the interview data. This allowed the identification of themes that were unique to a particular respondent or campus and themes that emerged commonly across multiple interviews. While I was identifying codes and themes, I also coded the responses to each question from each participant so that responses to particular questions could be pulled out separately along with all of the codes. Once an initial set of codes was identified, responses from all participants were selected through the software to address the specific research questions posed at the beginning of this chapter and addressed in Chapters 4-6. A list of the responses and what questions they were used to answer is given in Appendix B. Those questions and codes were then further examined to construct the outlines for Chapters 4-6, which examine similarities and differences within the two study communities and between the communities.

Chapter 3 – Berea and Oberlin: Community Demographics

Introduction

The purpose of this chapter is to provide an overview of each of the study communities in their regional context and to describe how each of these communities have pursued sustainability. Each of these communities have constructed and pursued their agendas in ways that are unique to their location and the central institutions involved. In Berea, I will especially highlight the work of Berea College and Sustainable Berea. In Oberlin, the Oberlin Project and Oberlin College are highlighted. But the efforts toward sustainability in these two communities go beyond these central organizations. The goal of this chapter is to lay out some of the foundational efforts and relationships present in each community. Subsequent chapters will build on this foundation and more explicitly develop these relationships through data collected in the interview process. Because some of the details of the case studies flow more naturally out of and relate better to the interviews and specific questions in the interviews, I have withheld some of the material from this chapter and deferred to later chapters that will provide additional introduction and context.

This chapter is built on many sources of evidence. My data collection in the communities themselves has been an important source for how I present the communities. In the interview process, I uncovered many documents that helped me to construct this overview. These documents vary from archival sources such as newspaper articles, reports produced by consultants or government agencies, and statements of purpose and strategic plans. As with any historical or case-study writing, I

will not cite every line or fact in this overview. As I rely on any particular document in my writing, it will be cited appropriately.

Berea

Berea, Kentucky is located in Madison County, which is an Appalachian county on the edge of the Cumberland Plateau. It is a city that has grown up around Berea College, the central organization in Berea. The college was founded, in the words of John Fee, one of the central founders and organizers of Berea College, "which would be to Kentucky what Oberlin is to Ohio, antislavery, anti-caste, anti-rum, anti-sin...Why can we not have such a school here?" (Peck 1982:8). It was founded as an institution that would be an outpost to Appalachia and would bring education and opportunities for human development, and was an early beacon of hope to the region, drawing attention from progressive abolitionists and even a U.S. President. Woodrow Wilson, who exclaimed of the college "Our nation is not fed from the top. It is not fed from the conspicuous people down. It is fed from the inconspicuous people up; and the institutions like Berea that go into the unexhausted soils and tap their virgin resources are the best feeders of democracy" (quoted in Peck, 1982:149).

But Berea was not merely an early economic development strategy developed by progressive abolitionists and feminists. It was founded on principles of Christian doctrine that focused on the reconciliation of people against the existing social institutions of the time that separated people and their worth and functions based on gender and race. By no means was this a perfect arrangement, as all progressive attempts at social change fail on one level or another, still the principles at work were

that of providing the opportunity for all people to develop to their fullest human potential, even in a region that was already lagging behind the rest of the country economically. Peck quotes Rabbi A.H. Silver as describing this philosophy to develop the whole person:

A Man must have more than one world in which to live...Alongside of his job-world he must construct for himself a leisure world wherein he can live freely and joyously in the role of a creative amateur, pursuing objectives not out of economic necessity but because of his sheer love for them. This will enable him to remain young amidst the ageing toll of relentless years (138).

This is an important quotation as it foresees the goals and motivations of the modern efforts in Berea to pursue sustainability.

In Berea, there have been many efforts to create a higher level of resilience in the community, but there are two recent ones that deserve special attention: the Berea Energy Cost-Savings Plan (BECS) and the Berea Economic Advancement Team (BEAT), efforts that overlapped in time.

In 2009, the city of Berea became a member of the International Council for Local Environmental Initiatives, or ICLEI, with the purpose of improving environmental outcomes and using energy more efficiently as a community (Jackson 2012). The BECS was a joint venture of the city of Berea, the Kentucky Environmental Foundation and Sustainable Berea, the purpose of which was to reduce Berea's energy use by 30% in projected growth by 2042, which is an average annual reduction of 1% in "traditional" per capita energy use. Realizing just half of this savings would yield an average annual savings of "\$495,000 in today's dollars, or at an assumed inflation rate, \$1.6 million in the last year of the plan (9-10)" and \$639.00 in household savings in 2009 dollars.

The BECS was created based on four sectors which included residential, non-residential, transportation and city government. Volunteer teams for each sector met over an eight-month period while researching potential recommendations. At the end of the process, fifty-four recommendations were made through a consensus process. The recommendation period is thirty years and involves a five-step process outlined by ICLEI. Those steps are: 1. conducting an energy inventory; 2. setting preliminary goals; 3. writing a plan; 4. writing an implementation program; and 5. periodic monitoring of the plan's process over time. Most of the recommendations were related to energy conservation, but the plan also addresses cost savings related to the use of renewable energy.

The BECS, however, was not Berea's first foray into the realm of clean energy production. In October of 2011, Berea Utilities offered a lease of 60 solar panels (Phase I) to their customers (Berea Utilities 2014). Those panels were leased out in under 5 days, so an additional 60 panels (Phase II) were made available, and those panels were leased in the next 4 months. These panels were installed on the property of the utility "with excellent orientation to the sun and no shading" (Berea Utilities 2014). Phases III and IV of that installation were placed in operation on July 8, 2014, which added an additional 126 panels to the installation.

Both the BECS and phases I and II of the Solar Farm were useful preparatory actions for the next phase of economic development in Berea. In October of 2011, Mayor Steve Connelly convened a meeting "with the goal of developing a consensus on the best ways to create more jobs, build a bigger economy, and exploit opportunities

offered by the global economy while maximizing the power of local ownership and spending” (quoted in Berea LIFE 2014:2). This triggered a six-month process that some of my respondents participated in called the Berea Economic Advancement Team, or BEAT. While this group was called by the Mayor, with support from the Berea City Council, it was largely led by citizen groups falling into five groups related to the following areas: big business, small-business, energy, local investment, tourism and local food (Shuman 2012:33).

One of the centerpieces of this effort was the ideas and consulting of the local economy expert Michael Shuman as part of the firm Cutting Edge Capital. Shuman’s role was to perform analysis on the current state of the Berea economy and provide insight as to how to make progress toward localizing their economy. As will be reported in a later chapter, there was skepticism among the local leadership that the typical model of economic development that focuses on recruitment would work in the future or at least that should not be understood as the only strategy with which the community approaches its economic planning. Shuman’s approach was one that encourages local ownership and import substitution, or LOIS. It focuses on industries that can meet current demands while creating local employment and reducing “leakage” of financial resources from the community. This was a very different approach from traditional economic development that encourages specialization and a focus on comparative advantage and export markets. While Shuman’s approach was distinctly different from traditional economic development, he made two clarifications about his approach and how it fit with the traditional approach. One is that import

substitution does not mean withdrawing from the global economy. In fact, he draws on Jane Jacobs and argues that import substitution can be one of the best ways to engage with export markets (Shuman 2012:12). The second clarification is that the LOIS perspective does not carry negative moral judgments on non-LOIS businesses. “Some global, export-led companies can be terrific at creating wealth and jobs...[and] in Berea some of the efforts to attract these companies clearly have paid off, as evidenced in the strong manufacturing sector” (12). This is closely aligned with the perspective of the Transition Movement and those communities’ efforts to insulate themselves from the negative impacts of economic globalization, but not entirely withdraw from, and Rob Hopkins’ work draws fairly heavily from Shuman’s work.

Two of Shuman’s central tasks in this project was leakage analysis that detects the ways in which capital is leaving the community and highlights ways in which the leaks can be plugged with import substitution, and SWOT analysis that looks at strengths, weaknesses, opportunities and threats to the community’s economic base. This analysis then formed the basis of the BEAT groups that formed to further the economic planning process. Shuman performed two types of leakage analysis. The first involved using a tool that he designed for use by the Business Alliance for Local Living Economies (BALLE -available at www.livingeconomies.org). This analysis found that import substitution and localizing efforts could create 5,739 jobs and that achieving only 25% of this goal could generate 1,435 jobs and \$53 million in wages annually. The second analysis was performed using the Minnesota Input-Output Model, or IMPLAN, which is used extensively by economic development agencies nationwide. IMPLAN is a

more sophisticated tool that is capable of modeling how changes in one industry can affect changes in another. This analysis produced results similar to those of the simple analysis: 25% of the potential job creation would add 2,182 new jobs, \$92 million in wages, \$152 million in additional value added production and \$11 million in indirect business taxes. Because unemployment data are only available at the county level, Shuman estimated Berea's share of Madison County's unemployed at 881 people (29% of the total 6.9% unemployed). This is enough job creation to more than employ every unemployed person in Berea.

The SWOT analysis revealed a number of strategies for realizing this new employment. I will highlight the strengths and weaknesses identified here and reproduce several in full to provide a sense of these findings. Nine strengths were identified. Three that I find particularly relevant to this study were location, manufacturing and infrastructure:

Location – The city is easily accessible on I-75, connected to rail, and located near millions of Americans. It's close to the Madison County Airport, and a short drive from Lexington's transportation hubs.

Manufacturing – The city has more than double the national rate of manufacturing jobs, reflecting its successes at recruiting businesses for its industrial park and creating 3,200 manufacturing jobs. These jobs, while many are non-unionized, pay relatively well.

Infrastructure – the city owns, operates, and controls its own water, electric and sewer utilities. The roads are good. Land with water and sewer connections is available for industrial development. High-speed internet is widely available (Shuman 2012:25).

Other strengths identified include education, public sector, civic culture, tourism, local businesses and quality of life. It is not surprising that many if not all of these issues also surfaced in interviews, and many of them were mentioned or discussed at length by

respondents. Respondents discussed these issues in both positive and negative terms, and to some degree so did Shuman's report. Although Shuman made an effort in the report not to replicate the issues on both sides of the "ledger," in fact, some of these issues also appeared in the weakness category. I will highlight three of those weaknesses here:

Limits to Manufacturing – the manufacturing base of the city is not locally owned or controlled. It is overly dependent on the automotive sector, which has been volatile in recent years. It has many employees who do not live in Berea, which means that potential property taxes are lost in other communities.

Empty Storefronts – Local retailers have had a particularly difficult time succeeding in Berea, despite the absence of local retail outlets for clothing and groceries. Arts businesses [are] not capable of filling these spaces. Many Berea residents are not shopping "local first." Some retail areas lack adequate parking.

Limited Entrepreneurship – Financing gaps, coupled with the absence of a single place where entrepreneurs can go for assistance, has stunted the growth of new local businesses. (26)

Other weaknesses include finance gaps, youth out-migration, tourism deficits and workforce shortcomings.

Out of this analysis and the recommendations of Shuman, the six groups previously mentioned formed and began meeting separately. The big business and small business groups dissolved not long after their beginning. The other groups produced detailed plans based on a template provided by Peter Hackbert of Berea College. Perhaps one of the most successful groups from this effort was the local foods group. Chaired by Martin Richards, the team called itself Berea LIFE, or Local Integrated Food Economy. In the summer of 2014, the team produced a detailed, twelve page document summarizing research they did in the community and providing

recommendations that flowed from that research. Berea LIFE conducted surveys from four specific groups in Berea: residents, farmers, backyard gardeners and retail outlets.

Sustainable Berea

The focal organization for the Berea case study is Sustainable Berea (SB). Berea is a nonprofit (501(c)3) organization led by a volunteer board of directors dedicated to the task of “developing a sustainable community.” More specifically, SB is a “...group of residents of Berea, Kentucky and surrounding areas who work together to develop stronger households, neighborhoods and community in the face of imminent threats to global sustainability including peak oil, global climate change, sky-rocketing national debt, rapid population growth, and the destruction of ecosystems worldwide” (Sustainable Berea 2014). Originally a “Post Carbon Outpost” connected to the Post Carbon Institute, SB was founded by Richard Olson, an Environmental Science professor at Berea College. Sustainable Berea has no paid staff, which is a key difference between it and the Oberlin Project.

Sustainable Berea is very active in the community with a slate of regular events. The group meets monthly for a potluck dinner and an educational presentation. In addition to the monthly meetings there are a number of other regular events and programs that SB has created and some are ongoing. These include the potato project, 100-mile potluck, edible streets project and the resilient household project. Perhaps the most visible event for SB is the annual Solar Tour.

Oberlin

Much like Berea, the city of Oberlin grew up around Oberlin College. The college was an organization ahead of its time, having committed itself to radical equality related to race and sex. Both the college and the colony were founded in 1833 as a community devoted to “virtue and religious piety” (Brandt 1990:28) and that would send students out to Christianize the frontier settlements. It developed a reputation for “self-righteousness and heresy in religion and radicalism in education and racial attitudes” (29). Founded by John Frederick Oberlin, early colonists signed a covenant, pledging their devotion to a life of simplicity and austerity. Bad habits such as smoking and chewing tobacco were prohibited and using coffee or alcohol were also not welcome. Colonists were encouraged to eat food that was “plain and wholesome” (quoted in Brandt 1990:30), to reject the world’s standards of fashion and household decoration and to use their excess resources for spreading the gospel. By 1835, the leadership voted that both males and females would be admitted “irrespective of color” (quoted in Brandt 1990:37).

Oberlin was also the last stop on the network of people and places that formed the Underground Railroad, and slaves making their way to Canada would stop in Oberlin while they awaited a chance to cross Lake Erie into Canada. A culminating event in the anti-slavery activism in Oberlin is the Oberlin-Wellington rescue of a fugitive slave named John Price. Price had been captured by slave hunters and shuttled to a hotel in nearby Wellington. In an event that has been hyperbolically dubbed the “event that started the civil war” (Brandt 1990), Oberlin faculty and other members of the

community went to Wellington, and after a standoff that lasted several hours, rescued Price and returned him to Oberlin.

Oberlin 2025 Strategic Plan

The history of Oberlin, much like that of Berea, is not merely a narrative of progressive townspeople that is left in the past. The guiding vision for Oberlin's 2025 Strategic Plan is that "Oberlin will continue to be a proactive, trend-setting leader in social and racial justice and economic and environmental sustainability. We will continue to encourage an environment where diverse and innovative ideas flourish" (Public Services Institute 2011:32). The intent is clearly to build on a history of proactively addressing issues before much of the world has understood that they are a problem. This history is also invoked in the language and framing of the Oberlin Project, as the next section will detail.

The 2025 Strategic plan reflects a thorough and comprehensive planning process. Two local organizations, the Public Services Institute (PSI) of Loraine County Community College and Management Assistance for Nonprofit Agencies (MANA) of Kendal at Oberlin, a local retirement community, led the process on behalf of the local government. It consisted of five phases: 1. In-depth interviews with Oberlin's administrative staff, department heads and city council. This phase assessed these individuals' expectations for the planning process and also the accomplishments, challenges and opportunities for Oberlin. Phase 2 was a data collection phase focused on Oberlin staff to analyze the present conditions of Oberlin, its leadership and governmental processes. Phase 3 gathered Oberlin leadership and a wide variety of

Oberlin residents in small groups. Leadership from many organizations around Oberlin was consulted including PTA's, church groups, local clubs, groups of high-school students and ministerial alliances. Ideas were recorded for in-depth content analysis by PSI. In the fourth phase of the process, a planning council was formed to further engage key stakeholders in the community in small-group settings. The conversations were converted to themes through groupware software and key pad polling slides were created and participants had the opportunity to prioritize themes and vote on them in real time. This process "maintains and respects individual confidentiality, yet creates a very transparent process since everyone in the room can see the results of the voting at the same time" (Public Services Institute 2011:3). Phase 5 used the data from the various groups and worked with city administration to refine the plan to assure that the plan was broad enough to "live" from council to council, but that it would also have specific initiatives that could be monitored for progress.

The result of this process has been a thorough, concise and inclusive list of strategic priorities for the city and citizens of Oberlin. Whether or not the plan gets realized in its current form only time will tell, but the process appears to be quite comprehensive for such a small community. Related to sustainability, the plan is very specific as to the direction that Oberlin will pursue. Of the six strategic points in the two-page plan, the longest and most elaborate is the priority to "lead with sustainable practices" (Public Services Institute 2011:32), but the sustainability goals are not only limited to that section. The other sections contain several goals that are consistent with the social, economic and ecological aspects of sustainability including goals to attract

more green companies and jobs, to preserve and restore the agrarian community and goals to form partnerships with diverse groups of people, rehabilitate homes and offer diversity training.

The section on sustainability practices contains six points with some having multiple sub-points: 1. Continue to expand sustainable practices, including participating in the Oberlin Project; 2. Adopt code changes to encourage more green buildings; 3. Set goals to end carbon emissions and the mechanisms to achieve those goals; 4. Expand and improve safe pedestrian travel; 5. Support expansion of farmer's market, community gardens, local food production, and food storage; 6. Increase multi-modal transportation options. These are bold goals that demonstrate actions of a city with the vision and self-confidence to take such steps. There are at least three contributing factors in this boldness of vision: an engaged citizenry, city leadership committed to the goals, and the Oberlin Project. The work of the Oberlin Project is a central focus of this research and I will now turn to an introduction of that project.

The Oberlin Project

The Oberlin Project is the effort of years of planning and thinking of Oberlin College professor David Orr. Orr, now retired from Oberlin College, was the Paul Sears Distinguished professor of environmental studies and politics. He has authored seven books and more than 200 articles, reviews and book chapters. In 1995 he led a design team to build a high performance environmental science building (Adam Joseph Lewis Center) that is discussed further in Chapter 5. The goal of the Oberlin project is "full spectrum sustainability" that "integrates education, agriculture, renewable energy,

economic revitalization, green building, policy and law, and community development into a system in which each of the parts reinforces the resilience of the larger region” (Orr 2011). In the Oberlin Alumni Magazine, Orr casts a vision for what Oberlin’s future could look like:

Imagine Oberlin in the year 2025 with a vibrant 24 / 7 downtown featuring local foods, arts, and music, powered by energy efficiency and sunlight. Imagine arriving from Hopkins airport on a light-rail coming through a 20,000 acre greenbelt of farms and forests that terminates close to a new, deep green hotel with a cuisine featuring local foods. Imagine your reunion in 2025 held in an adjacent solar powered conference center. Imagine a Green Arts District in which great college strengths in music, the arts, and drama are joined to those in the sciences as the backdrop for performances, exhibitions, lectures, and an ongoing conversation on the most important issues on the human agenda, all having to do with whether and how civilization might endure and flourish in radically altered biophysical conditions. (2011:20)

The Oberlin Project has formed to accomplish these goals. As its name suggests, the project is a partnership among Oberlin College, the city of Oberlin and the Oberlin Project staff. Its fiscal agent is Oberlin College, thus it is not a self-standing organization. Nonetheless, the Oberlin Project is not funded by either the college or the city, but rather by individual donations and grant agencies such as the Kresge foundation, the largest funding agency, but also the Joyce Foundation, the Gund Foundation and the Rockefeller Brothers Foundation (The Oberlin Project 2014). The project employs three paid staff to carry out its work.

Chapter 4 – Risk

Introduction

This chapter will explore the perceived risk of community members in both study communities. Specifically, much of this chapter is organized around two research questions:

What kinds of risks do community members see as being most threatening to their communities?

What governance mechanisms get in the way of resilience?

The particular interview questions used to begin conversations on these issues were:

Are there particular types of risks or shocks that this project seeks to prepare the community for?

Are there particular governance structures that get in the way of resilience?

Some of the data for this chapter came from other interview questions but were included here because respondents came back around to addressing these issues. The data from this chapter are derived from the above questions, but also from codes such as “apocalyptic,” “peak oil,” and “climate change.” After addressing the data from these questions and codes, I will then turn to addressing the ways in which these data relate to the larger literature on risk.

One of the issues that this chapter addresses is the varied responses to the above questions. Because of the nature of the members interviewed, the concern with some of the expected issues such as climate change, peak oil and economic insecurity are certainly present in these data. Other, perhaps unexpected, responses are also observed, revealing a variety of concerns and motivations ranging from apocalyptic oriented responses to very standard and enlightening responses.

Perceptions of Risk

The principal architects of both The Oberlin Project (David Orr) and Sustainable Berea (Richard Olson) have backgrounds in science and ecology and both have deep concerns for the present and future of humanity related to the ongoing degradation of our planetary life support system. Both of these leaders are on record describing a present and future that, without change to our current path, will not be pleasant. In 1994, David Orr wrote:

If today is a typical day on planet earth, we will lose 116 square miles of rain forest, or about an acre a second. We will lose another 72 square mile to encroaching deserts, the results of human mismanagement and overpopulation. We will lose 40 to 250 species, and no one knows whether the number is 40 or 250. Today the human population will increase by 250,000. And today we will add 2,700 tons of chlorofluorocarbons and 15 million tons of carbon dioxide to the atmosphere. Tonight the earth will be a little hotter, its waters more acidic, and the fabric of life more threadbare. By year's end the numbers are staggering: The total loss of rain forest will equal an area the size of the state of Washington; expanding deserts will equal an area the size of the state of West Virginia; and the global population will have risen by more than 90,000,000. By the year 2000 perhaps as much as 20% of the life forms extant on the planet in the year 1900 will be extinct.

The truth is that many things on which our future health and prosperity depend are in dire jeopardy: climate stability, the resilience and productivity of natural systems, the beauty of the natural world, and biological diversity (7).

More recently but in a similar spirit, Olson (2007) wrote in a campus sustainability newsletter: "The world faces seven ecological, social, and economic threats, each of which has potential to cause massive disruption to society. Combined, these seven interacting trends present an unprecedented challenge to humanity" (1). The seven threats are peak oil, ecosystem decline, global climate change, population, consumption and inequity, the spread of anarchy and increasing debt.

It is no surprise that many of the members of these communities, when asked about the risks posed to their communities at this point in history, have concerns about global-scale issues that are looming. The formal efforts at the center of each of these communities, Sustainable Berea and The Oberlin Project, are both responding to the unpredictable nature of global climate change and economic instability. Clearly both of these communities are taking extraordinary efforts to brace themselves against the coming winds of change for their communities and the global systems in which they are embedded.

Of these apocalyptic concerns, there are various expressions. One community member in Berea identified global warming as an issue of supreme importance. “Well, global warming is definitely the issue of our generation. We’re going to be blamed and rightfully so I think; ours and our previous generation for the world that we leave to our descendants.” For this member, it is not only a matter of preparing our communities for potential changes including shifts in our ability to grow food, but also how current decision makers will be perceived by their descendants.

In addition to global warming, members were concerned about a range of issues related to food and food security, mobility and energy scarcity and shocks. The mobility issue raised is especially related to shocks in oil supply or other causes that result in oil price volatility and compromise the community’s ability to travel in traditional ways. But respondents expressed at least as much concern for the reliability of the electrical grid system and the community’s vulnerability to grid downtime. Another Berea community member articulated this concern and several reasons for it:

And there are a lot of really thoughtful, well informed people in the world who believe that the electricity is going to go down in significant ways that it makes a very tempting, you know, having it all tied together in a national grid with very little local distributed generation, it makes it a very tempting terrorist target. And I just find that real. And it's not just terrorist target; the big brownout we had a number of years was reportedly caused by a branch you know that created some kind of...short in Ohio that led, just by butterfly wings, led to a national problem. There's just a lot of vulnerability there I think.

This respondent identifies a variety of problems with our current electrical generation system: centralization, potential for terrorism target and maintenance issues. Of course at the heart of all of these concerns are the issues of centralization and a high level of connectedness, a theme that will persist throughout these chapters.

Some respondents had more generalized concerns for potential destabilizing factors, especially related to how we get supplies of everything that we use in daily life in a globalized production system, with a high division of labor. Another Berea community member responded:

It could be, could potentially be an entire meltdown of the economy or a meltdown of the supply chain that provides people with food or electricity or oil or any natural resource you can think of that would cause social degradation and we hope to teach people in some way, shape or form, especially the community of Berea to be more self-sufficient and resilient. But really, even a smaller scale like the ice storm several years ago that shut the power off for weeks for people; not necessarily in this community but many communities in Kentucky, how to even be, make it through something like that.

This response highlights some general understandings of members of both communities including the need for self-sufficiency. When respondents use the term "self-sufficiency", it is used not only in the sense that households would benefit from a higher level of resilience, but it is pointed even more so at the need for self-sufficiency at the community level. Another theme that surfaced here and in several interviews is an

analogy between storm preparedness and preparedness for other types of events. An ice storm that hit the Central Plains and Midwest in 2009 was referenced by several Berea respondents. As reflected in this respondent's view, it was a sort of test for how communities withstand events when the normal delivery systems that are taken for granted are interrupted and other ways of survival and getting by have to be found. Another active member of Sustainable Berea responded generically to a similar occasion where advanced preparation paid off:

Well resilience, I mean I think that my husband and I have done quite a bit to put ourselves in a position to be resilient...We have lanterns in case the electricity goes out; we've got several of those. We've got several sources of energy with our wood stove and our gas and our electric so if there's a disruption to gas and electric, we've got wood. We have food that's stored. So, we have our house well insulated so that it, you know so we're not going to freeze. We know all of our neighbors and the last time we had a disruption of electricity, there were people that came and slept on the floor and ate here because we just started cooking stuff on the gas stove and there were some people across the street, an elderly couple, that came and brought some bedding and slept on the floor because their house wasn't prepared well. So, resiliency means being prepared with food, water, shelter, clothing and transportation. We don't have mules but I'd like to have a mule. That's what it means to me; being prepared and being able to survive comfortably.

In this particular response, the respondent was actually defining resilience, but it illustrates nicely the response possibilities in a disaster. It also illustrates another topic to be addressed later, that that is neighborliness. Many respondents had a desire to reach out to friends, neighbors and networks involved in resilience work to improve self-sufficiency as these last two quotes illustrate. There is a clear contrast between the

respondents from this study and the larger “prepper¹” movement in the U.S., though some of the background apocalyptic scenarios may not be that different.

Given the background of both of these communities, the background scenarios explored here are not exactly shocking. There were, however, a variety of other responses to the question of preparation for shocks or risks that may be more unique and in some ways even more mainstream. I will now turn to an exploration of those responses that diverge from the norm.

Divergent Perceptions of Risk

In addition to the expected perceptions of risk, there were a number of responses that demonstrated a diversity of understanding related to risk and what risks were most present to the respondents’ community of origin. These “divergent” risks may be more in tune with what a more standard sample of a population might perceive to be risks and have more of a mainstream feel to them. They span issues related to inequality to inadequate regulatory standards and some of them dovetail well with the types of perceived risks already discussed.

Several respondents in both communities identified perceptions of risk directly related to the work of local and state government and local municipalities and how they carry out their roles related to energy, taxes and regulation of energy and water. A Berea community member expressed concern over the amount of energy and water

¹ The prepper movement is a modern term for what used to be called survivalists. It is an effort for individuals to secure their own lives and livelihoods for emergencies motivated by fears of various natural and social events including extreme weather conditions and social anarchy resulting from climate change, solar flares, energy shortages or government interventions in community affairs. Most grocery stores and bookstores sell magazines that provide instruction and motivation for the movement.

used by local manufacturers and the pricing mechanisms related to that energy use and contrasted that use with individual conservation efforts.

Again, but not if industries are exempted from that you know...I can say...turn your faucet off when you're brushing teeth and the industries are using such ridiculous amounts of water and the utility you know kind of price per cubic meter...Anyway, the unit price for the energy that utilities pay, it actually goes down the more they use, so as long as that's in place, we have a problem. I mean those are the things that I really think about.

This respondent expresses an important contrast to the emphasis by many in the sustainability world on personal habits while giving less attention to the facilities that use the vast majority of the electricity or water in the community.

Another respondent had a different response related to local regulations. This response was directly related to this individual's ability to make that person's household more resilient regarding water use and the use of a cistern. Municipal codes in Berea do not allow residents to use cistern water in households, even for flushing toilets. This respondent indicated that the restrictive nature of these codes prevent interested citizens from using a practical and historically rooted way of providing for their own water supply and not being dependent on the municipal water. They provided an example of a change in Portland, Oregon's codes recently to allow citizens to use their own water supply. The city of Portland

established a set of guidelines that have to be met in order to qualify to meet the regulations...so it involves an inspection...and understanding ahead of time what's going to be inspected...It seems like it's a good example of sort of government providing some expertise that helps people who want to do that [to] be able to know how to do it safely.

Respondents also expressed concern related to how low-income community members would be able to adapt to some of the new emerging realities. They were

concerned about rising energy prices and the risk of their community (Berea) not having a diversity of energy sources to stabilize prices. One respondent expressed concern for the quality of housing stock and how that would continue to affect community members who struggled to pay for rising energy costs. When I followed up with a question about how this respondent saw that playing out over the coming years, they indicated that community members were already adjusting to the price increases and that the increases in cost would not be sudden or drastic, but would continue to happen slowly over time. They continued,

But already, if you ask the folks who work with Bereans United for Utility and Rent Relief, you know I mean the amount of requests for utility assistance have gone up and up and up and up and up and it's because the rates are getting, of electricity are going higher. The base rate just for having access to electricity is going up every year and their homes are no better sealed. In fact, every year that you're not making repairs and improving your home, it's worse, arguably. So you know those costs are already going up...it's already happening. I think renewable and energy efficiency doesn't turn that clock back and doesn't kind of send that graph chart you know line going down but it stabilizes and allows people to get stable and live more comfortably...on less over time...

But the concerns of respondents for low-income families and individuals transcended concern for energy prices and extended to the ability for individuals to adapt generally to a changing world. An Oberlin nonprofit leader expresses this well, saying, "one huge risk is people being able to adapt well in an environment that may be increasingly out of their reach economically. We can strive to be all these things as an Oberlin town and say yeah, but the cost to do that is prohibitive." This concern is similar to the above Berea respondent's concern for low-income individuals and their ability to keep up with the cost of energy but is a more generalized concern related to energy, food and generally staying afloat in an age of economic instability. As I have

already discussed in the introductory chapters, these two communities have both known the pain of economic instability.

Other risks expressed include city income (Berea) and funding concerns for schools (Berea/Kentucky). One respondent expressed concern that the city of Berea is very dependent on payroll taxes for revenues and this revenue source is at risk should there be a problem with the manufacturing sector in Berea. As with many small college towns, one of the largest landholders is Berea College, and as a nonprofit organization, it pays no property taxes. This sometimes causes tensions in discussions related to how the local government collects its funds. (I will have more to say about this when I examine the college/community relationships in Chapter 6.)

The other concern related to school (K-12) funding is a concern for the long-term health of the community and the need to invest more in education. The state of Kentucky has reduced funding to K-12 education since the recession of 2008 and this is a concern for many throughout the state.

The concern for economic development was shared in both communities. An Oberlin student expressed concern about the success and direction of economic development there:

Broader risks and shocks – if the project is successful in its economic development goals and ideas, that’s a huge risk. We are in one of the poorest counties in the country...in the rust belt so whether that’s going to happen or not is unclear.

This student also expressed concern for how the college would proactively invest in the local economy: “We have a \$700 million dollar endowment; none of it is invested here in any way and that’s a real shame. And we have god knows how many millions, I mean

somebody knows how many millions of dollars [are] invested in pension plans.”

This issue of local investment was present across both study communities and will be addressed more thoroughly in Chapter 6. Both communities also have movements underway, led by students, to consider the investment direction of both Oberlin and Berea colleges.

Hedging

Though respondents have significant concerns and even fears for the future, some of the respondents engaged in “hedging,” or carefully presenting their concerns to their peers and the public, related to their outlook and how they communicate the purpose for their personal and organizational efforts related to sustainability.

One of the ways respondents engaged in hedging is to explicitly disavow the intention or practical purpose of using negative ideas or images in their communication. When discussing risks and specific things like peak oil or climate change, occasionally a respondent would say “we don’t overtly say that” or “So you know, we don’t preach any particular doom and gloom.” A Berea College student described this sentiment in detail:

And so I try not to think about it in those terms so much, especially just because I know I can be cynical and I think that or know with the situation that we’re in for the planet as a whole, I don’t think we have time to be cynical just because it’s like we have to make saving the world fun or else no one’s going to want to do it.

Part of this particular hedging is public relations, and as indicated by this respondent, sometimes it is a very personal and psychological coping mechanism and way of framing this work. This positive way of framing this work is an explicit intention of the Transition Network, though I did not get the sense from respondents that being a part of the Transition Network was the reason behind this perspective. Rather, my impression of

this phenomenon is that this work can be heavy and difficult and that darkness and cynicism is a difficult way to carry it out and thus they choose to keep their perspective positive.

One respondent did express skepticism about the desire to always be positive:

...but I mean Rob Hopkins, bless him, he's done incredible stuff but he says it's more of a party than a protest movement. Okay, the planet's dying, the climate's going to hell, on and on and on you know the list and at some point you've gotta say, yes it's important to have fun but how are we going to really take this seriously and kick it up into the next gear.

This respondent is responding directly to Transition Network founder Rob Hopkins' efforts to move away from the "doom and gloom" and cast a positive vision of where to go and what to work on instead of what to be afraid of. I think this quotation points to an important tension not only in these community groups and how they communicate and motivate themselves, but to the overall sustainability literature and where it has been. It also highlights a particular tension between the science of environmental problems and how to move societies and elements of societies forward with the knowledge that all of human society is at risk and to create proactive solutions out of that knowledge.

In contrast to both of these positions that we are at risk, but cannot communicate it that way or that we are at risk and probably should communicate it that way, there was another way that some respondents "hedged" in their communication of risk. This hedging is grounded in the confidence that their community is well enough situated that adaptation to new circumstance will not be devastating to the community. A nonprofit staff member in Berea argued

One day even with peak oil, I think eventually you know we'll...be okay just kind of where we are situated as a city and where we are situated as a state and the moderate climate that we have regardless of climate change you know, more stable than other places. So a lot of those things I'm not too threatened by.

This is a fascinating contrast within this particular community (Berea). This second quotation expresses a confidence in the community's ability to adapt, but also makes some clear assumptions about the kind of adaptation that will be necessary.

Goals and Assets

At this point in exploring the answers to the question about risks and what they are for the respective communities, I have cited answers related to specific risks and also answers that addressed a hedging response that either downplayed the role of negative framing or expressed confidence to make it through the worst of situations. But there was a third type of response to this question that sidestepped the risk issue altogether and rather discussed the perceived assets of the community and the goals to the projects these respondents were involved with.

Responses also took a bit of a different direction in each community. Respondents from Berea tended to emphasize things related to location such as proximity to transportation routes, tourism and economic stability. An active member of Sustainable Berea emphasized "flexibility" as a goal of the community. A de-emphasis on outward development of the city and the preservation of green-space was raised as both an asset and a goal of the community by an elected official.

In Oberlin, the reframing responses were related to social cohesion, diversity and planning. An Oberlin faculty member enthusiastically responded: "I mean I really believe that if total disaster hit, this community would totally succeed in coming

together because it, even though there are lines of division there, you know it is a very tight knit community.” An Oberlin staff member expressed confidence in diversity, not as an achieved goal, but as an emerging characteristic of the community. The respondent said: “One of the things I think we’ve thought about quite a bit is diversity and how that helps you be more resilient; so diversity of you know skills, diversity of food, diversity of places you’re you know procuring different things, diversity of people and diversity of your energy portfolio...” Both of these responses are indicative of a particular kind of confidence in both the current ability and the trajectory of the Oberlin community. The first comment recognizes the shortcomings of the community, but also recognizes that in the end, this respondent believes that those shortcomings will be overcome by current level of social cohesion in the community.

The same Oberlin respondent that expressed concern about the prohibitive costs of sustainability also expressed guarded optimism related to the education and planning role in the community and region.

And I think there’s a lot of study that goes into showing, yeah but the long term investment really makes that the right decision. So part of it is education. How to bring people along that that risk isn’t as great as you think. There’s a lot of regional planning going on in this area that I think is interesting that Oberlin’s at the table just like any other town because a lot of you know how we can tap into opportunities is not just Oberlin, it’s regionally.

This is an important response, as many important sustainability and resilience factors hinge on not only what is happening at the local level in any given community, but the planning and synergy of the entire region. Food and energy production and transportation are all issues that can only successfully be improved across regions and not simply to be improved in enclaves.

Governance and Risk

Within this category, respondents' concerns broke into four categories: general comments and those related to local, state and federal laws; practices or rules governing their communities and affecting sustainability efforts; the focus of the public; and development and organizational governance. Some of these results are similar to the discussions from the question directly about risk, so there is significant overlap that ties these two questions together.

One of the issues that emerged was that government in general does not emphasize resilience. Government and specifically local government is focused on the basics of building infrastructure and providing for needs, and not really focused on integrating resilience into those functions. One respondent was complementary of Berea's energy infrastructure because local government had taken steps to begin to understand its present position related to energy expenditures and how it might become more resilient in that area. Other issues related to local government in Oberlin were term limits for commission members and city employees not being rewarded for taking risks. Commissions in Oberlin are set up to investigate particular issues of policy and involve both local officials and citizen members. A recent change in local government rules sets limits on commission members and this was viewed as a positive change to this respondent. The same respondent also remarked that city employees were not rewarded for risk taking and that is a barrier to trying new things that could contribute to problem solving.

Respondents were also concerned with the interaction of federal, state and local

governments and the reality of or possibility for interference from superior to subordinate governments. Two of these concerns had to do with renewable energy. Specifically, there was a concern about unstable federal tax credits that are renewable on an annual basis and do not provide an adequate atmosphere for investment in energy sources like wind. Wind developers do not know year to year whether the credits are going to exist, so continued investment is difficult or impossible. There was a similar concern related to regulations that inhibit Property Assessed Clean Energy (PACE) financing, or placing additional tax assessments against a property for energy efficiency or renewable energy investments (Laboratory 2010).

There was a similar concern in Oberlin about building codes not promoting sustainability, but the respondent acknowledged the need to balance building efficiency with things like safety measures. One Oberlin respondent also commented on the positive nature of state government in Ohio, indicating that the transparency present in the state's operations is a positive element in the state's governance.

Another important issue that surfaced related to this question, and one related to some of the larger themes in this project, is that of development. As I have already explored above, the issue of economic development emerged naturally in some of the interviews, as well as through my prompting. I will come back around to that issue in Chapter 6, but one important feature of economic development mentioned under this question is that of recruitment of industry versus that of growing a local economy more organically. I will not elaborate beyond this here except to indicate the importance of this issue having been raised related to a question on governance. This respondent

understands the direction of how the local economy develops to be a direct response to the governing efforts and insights of particularly local and state officials. And in this they are not alone.

Another important aspect of governance that surfaced is that of organizational governance. This is another issue that was present in both communities and that surfaced mostly related to other questions related to the college and community collaborations. The two particular issues that several Berea respondents mentioned related to this question are those of metrics and fostering a unified purpose. The metrics issue was specifically related to the management of Sustainable Berea and how probably not enough was measured. One Sustainable Berea member said “I think we’re not as committed to the metrics or to really measuring our progress and so those barriers don’t become as apparent as they might in other organizations because we’re not that intentional, if you will, about measuring progress.” This respondent indicates that barriers to resilience may not surface because the organization is not actively measuring enough to thoroughly or accurately detect those barriers.

The final issue that I will address here from my respondents is the issue of public focus and the divergent foci in the community that do not necessarily involve resilience. One Berea respondent indicated that the public was not focused on risks and governance issues related to resilience. The Berea community is not particularly impacted by the negative effects of mountaintop removal or other major environmental impacts. This respondent indicated that the issue of resilience is something that more “educated” people would be more conscious of and that most

community members were more focused on unemployment, prescription drug abuse and the cost of education, rather than something like “the sustainability of our food system.” This concern is not unlike the more mainstream concerns related to risk discussed earlier in this chapter.

Conclusion

These data paint an interesting picture of how respondents from both communities perceive risk and construct and communicate their perceptions to a wider audience. Members of both communities expressed concern for the future and the difficulties it will bring. Members of both communities also voiced hedging and guarded optimism related to what was already happening in their communities. They took comfort in what was already happening in their communities and their personal and collective readiness.

Observing responses to both of these questions, respondents demonstrated that they had concerns and that those concerns were related to more obscure issues that perhaps only a peculiar and specific portion of the population were interested in or concerned with. This distinction that my respondents have made and that I have highlighted is worth some consideration. The issue raises questions about the boundaries of resilience and risk and the legitimate foci of communities. Is focusing on a community’s food system, for example, more or less of a focus on resilience than prescription drug addiction or employment? I think these respondents are raising issues related to what may or may not be useful in pursuing resilience, and perhaps those boundaries should be drawn wider than what is commonly assumed in transition circles.

Respondents from both communities indicated a lack of faith in government to provide the appropriate framework to optimize the pursuit of resilience. Two Berea respondents expressed concern for the lack of local guidance on practices that would make individuals and the community as a whole more resilient like the regulations related to water storage and also guidance on pricing at the utility level that would apply to both electricity and water. An Oberlin respondent had concerns related to incentives to provide wind energy and the stability of those incentives.

Respondents from both communities also had concern about local efforts to create opportunities for economic development, especially for those who are already on the margins economically. Both communities have well-developed plans to address economic development, and both attempt to give attention to the sustainability of those plans. This issue is addressed in both Chapters 5 and 6. Specifically, respondents in both communities wonder how and why any economic development efforts will successfully and proactively lift community members out of poverty that have not had the opportunity for this class mobility up to this point. In this chapter, respondents from both communities are merely expressing doubt that this can work, but as we will see in later chapters, respondents are looking at specific aspects of their current efforts and casting doubt in more specific ways, such as questioning the process of developing the Green Arts District in Oberlin (Chapter 5).

Respondents from both communities also engaged in hedging and re-framing of our current local/global economic and ecological situation. Members of both communities understand the dire consequences of 150 or more years of the progress of

economic growth and burning of fossil-fuels, but members in both communities also expressed a desire to emphasize the positive aspects of their communities, proactive actions and did not want to communicate the motive for action in a negative way. They pointed repeatedly towards their goals and assets and minimized their efforts to stop some of the most awful consequences facing humanity from coming to fruition.

Responses indicate that this was done both for personal reasons related to their own coping mechanisms and also because recruiting help based on pending doom is more difficult than casting a positive vision and recruiting based on what the future could be.

Chapter 5 – Transition

Introduction

This chapter is organized around several themes that are vital to the types of transition that the study communities are attempting to achieve. A substantial theme in this project is that of the collaboration between the involved colleges and their communities. This chapter will begin with an examination of the relationships between each of these colleges and the surrounding community and will also examine the relationship related to how each of these communities is attempting to increase their resilience and transition to a different way of being. The chapter is organized around this research question:

In what ways do the study colleges contribute to these transition efforts and how and what types of knowledge are shared between the colleges and the larger communities?

The particular interview questions used to begin conversations on these issues were:

How is the college involved in bringing people together around this project?
How does the college community contribute knowledge to this project?
Are there other types of knowledge that are valued and welcomed in the project?

College/Community Relations and Knowledge Sharing

It is important to note at the outset is that both the towns of Berea and Oberlin grew up around their respective colleges, not the other way around. The presence of these colleges in their communities has had important impacts on these communities, and as the data show, both colleges have provided significant assets to their communities as well as important points of tension.

Berea

From the data related to the questions listed above, there were several emergent themes that will organize this section. First, I will discuss respondents' general understanding of how Berea College and Berea the community related to each other. Second, I will discuss two particular areas where Berea College's efforts intersect with the community which include the Center for Excellence in Living through Service (CELTSS) and the college's sustainability oriented efforts and how those efforts impact the surrounding community. Lastly, I will discuss the problems and points of tension that exist in the town/gown relationships.

The mission of Berea College is to serve the Appalachian region and to value Appalachia's roots and culture. One respondent pointed this out early in my interviews that the college's mission is to Appalachia, not Berea. Nonetheless, through several important mechanisms, the college does contribute significantly to the local community. Though the college does not have a direct mission to the city of Berea, it does have a direct impact by virtue of involvement of faculty, staff and students. One respondent said of Berea faculty members:

However, it is more direct because many of their faculty members live in our community, become parts of the community and so they influence what happens at church, what happens at rotary club, what kind of organizations do what and they can serve on our planning commission or they serve on our Berea Utility Advisory Board and so we get that enlightened influence...

The college was described as outwardly focused on making changes and one respondent added that it does "an excellent job in practical application." That same respondent also indicated that the college does an "excellent job" of assimilating

different cultures into the community. This is certainly palpable in spending time within the Berea community. While Berea or Madison County is not overly racially or ethnically diverse, the college does attract students that represent significant ethnic and cultural differences.

One faculty member illustrated the outward influence of the college in describing a philosophy of change: “Now I happen to think if you want to teach students how to save the world, you work with them to save the world.” These data show that this view is not exceptional among the college staff and faculty, and that is particularly evident through the Center for Excellence in Living through Service (CELTS).

One of the central places where Berea College and the larger surrounding community intersect is CELTS. The mission of CELTS is to educate “students for leadership in service and social justice through promotion and coordination of academic service-learning and student-led community service” (CELTS 2014). The center serves as a place where students can find connections to the community and where community nonprofit organizations and businesses can seek qualified and interested students to work in their organization. CELTS employs 70-80 students per year in their labor program and facilitates service learning with faculty members in more than 20 academic programs. In a typical school year approximately 500-600 students participate in CELTS programs, most of whom are involved in semester-long commitments. Some students may only volunteer a few hours a week and the students in the labor positions have a 10-15 hour per week commitment. Approximately 60 of the students in labor positions are Bonner Scholars, which according to a Berea staff member, looks for “students who

are from low income backgrounds who want to make service a part of their college career and provide opportunities for them to do that while they're in college." This is another point of commonality with Oberlin College, as Oberlin also has a Bonner Scholars program. CELTS has relationships with nonprofit organizations and businesses in Berea that include Habitat for Humanity, Peacecraft and Helping Earth and Learning (HEAL), a local environmental project. A Berea College staff member noted:

All the work that we do is in partnership with community organizations so... many of our partnerships have been around for years and we really try to work with our community partners to identify work that benefits their organization and the work they're doing in the community that college students are capable of doing.

One such recent partnership was a service learning partnership between a class learning to construct databases and Peacecraft, a store in Berea that sells fair-trade crafts and foods that often come from developing countries. The faculty member involved likes to expose students to real-world projects instead of "canned" or made-up projects. In addition to practical, real-world projects, the Berea College experience offers students the opportunity to be reflective. In the words of one community resident:

I think that the college setting and Berea College in particular offer a unique opportunity too, for students to be reflective, be exposed to alternatives and see alternatives in action. So I do think that higher education is kind of a magical space for that kind of thing to happen, right. It's broadening people's views of the world and what they think is possible and where they see themselves in that [world].

In addition to being reflective, the experience of CELTS and other outreach programs allows students to have an impact on the community that is appreciated and makes the students genuinely useful. One Sustainable Berea member noted that their use of social

media was highly influenced by listening to and learning from students and learning from their familiarity and engagement. A Berea nonprofit staff member commented on the value of students to their organization and to others in the city:

And our organization...has had a very close relationship with the college...we were founded...lots and lots of kind of departmental service learning exchanges, internships with students, independent studies, you know lots of people who are at the college as students, faculty, staff have been involved in leadership of the organization here and I think that's the same, I think the same could be said for most organizations in the city.

Perhaps one of the most interesting and, from the perspective of this project, effective accomplishments of CELTS is a 3 year grant used to work on energy efficiency in Berea. More specifically, according to a Berea College staff member, the purpose of the grant was to

get community consensus between the college and this multitude of organizations that could be involved in the effort to undergo a process by which we would try to get the city as a whole...to agree to... energy efficiency and renewable energy goals; like that was our collective goal...[L]et's pick a target, pick a project that we will all together try to work on and have this Learn and Serve America grant be kind of the vehicle, provide the space...for us to come together and do some work together so it's not just Sustainable Berea..., Kentuckians for the Commonwealth is doing that, MACED is doing that, KEF [Kentucky Environmental Foundation] is doing that; we can all look at each other and say, oh good work.

This is a direct effort of the college to bring community partners together to achieve what the individual organizations could not accomplish on their own. Another nonprofit staff member from Berea commented on the grant and the process:

So I think that was an effective process and what came out of that...an agreement for, of the city to become a member of ICLEI, Local Governments for Sustainability. And that directly led into this doing the first...step in membership of an ICLEI city is to take an energy audit and develop a plan which became the Berea Energy Cost Savings Plan. So I mean that was a direct outcome...of those...3 years of work by organizations, collectively to try to...increase the

understanding of the city as to what these issues are all about and why it's important to show that there's a lot of support for it. And not just local environmental groups but like the health department, you know other more mainstream organizations that were getting involved; the food bank, people who were serving folks who...were not flourishing. So that, I mean that I think was a really good effort in that the college used its strength and capacity to lend some staff and provide that space, literally and figuratively to enable organizations to come together and have a shared goal.

This is an interesting outcome for an organization that is essentially a service learning organization for the college. The Berea Energy Cost Savings Plan was an important step for Berea to get an understanding of their energy needs and how they might change their energy expenditures and energy production mix. This is one indication of the role of Berea College's leadership related to sustainability, but, as argued below, it is not the only indication.

The role of CELTS in the college and the community has a much broader purpose than working on sustainability issues, but there are a number of efforts on campus that are specifically related to teaching sustainability, sustainability habits and policy.

Berea's description in a previous chapter provided an overview of these efforts, but I will summarize those campus programs and demonstrate the college's role in leading the community on these efforts. Berea's Eco village is a student housing development that encourages low energy use, community gardening and sustainability thinking. The Berea Sustainability and Environmental Studies (SENS) house in the eco-village is a living/learning opportunity where student residents have responsibilities through their labor positions for data collection, composting and other sustainability activities. The SENS house also includes the "Green Machine," or a biological sewer treatment plant for the SENS house. The Community Sustainability Laboratory (CS-Lab)

is an effort to encourage “collaborative problem-solving by students and faculty from several disciplines in partnership with citizens from throughout Kentucky and the Appalachian region” (Olson 2011). The CS-Lab is one of the more recent efforts to provide both practical experience for students and problem solving in the region.

It is not difficult to understand that from the perspective of many of my respondents, the college is a clear leader in articulating a vision for and creating mechanisms for achieving sustainability in the city and region. An elected official indicated that “...I’d certainly say that the college has been somewhat visionary in that. The city to a less degree although we’re, you know we’re receptive to it; we’re not leaders.” A community member, who I should note was not impressed overall with how the college was engaged in the community, had positive things to say about the college’s role in leading on sustainability:

Well you know I think...from the community sustainability point of view, I mean the college has kind of driven the conversation you know because they made the decision, I don’t know how many years ago it’s been now but they made the decision...that sustainability is really important for them in terms of teaching programs but also in terms of how the college functions, so they’ve lifted it up and... it has impacted the community...mainly faculty and staff live here, right, so you... have a faculty and staff who are passionate and committed to these ideas when they live here and you know so they want to see...the community they live in that goes beyond the college also...addressing those things.

Throughout the interviews there was a high level of agreement that the college was playing a key role in moving the city of Berea on a path toward sustainable actions and commitments and the evidence presented above certainly points in that direction. It is not difficult to understand how one community member could describe the town/gown relationship as “good, healthy and constructive.” But not all of my

respondents were in agreement that the town/gown relationships were in fact always healthy and constructive. Some respondents understood the relations in quite different ways, pointing to a number of problems in how the college relates to the larger community. The next section will detail some of those problems.

Tensions in the Berea Town/Gown Relations

Relational tensions between colleges and the cities in which they are located, or their larger communities, probably exist in most college towns. There are many reasons such tensions might exist between these two divergent communities that can have vastly different purposes, cultures, interests and conflicts around things like student behavior in the community. Both of my study communities have similar situations where the town has grown up around an already existing college and where issues of class and status can become problematic. Both colleges in my study have deep histories that give them status in the region and can contribute to tensions in the community among residents who are not part of the institutions and who have not been acclimated to the culture of higher education in general. While many of my respondents understood the town/gown relations to be positive and mutually beneficial, others saw things differently.

One of the distinctions that was made among some respondents in Berea is that of Berea being two towns – one connected to the college and one not connected. This idea was expressed in different ways across respondents. Some described the town/gown “rift” as being strong. One respondent who was retired from the college described their retirement as having “retired and moved to Berea,” even though they

had always lived in Berea. Their disconnect from the college and exposure to a broader range of people outside of the college was described as if they had moved to another community and discovered new people and new perspectives. I should note here that this respondent welcomed the new world they were exposed to, so they saw it as a positive development.

Several respondents who had concerns for tensions between the college and the larger community simply described or identified what they thought the problems were. Perhaps surprisingly, given the previous discussion of how the college has been engaged, some respondents did not think there was any engagement at all by the college toward the community. One respondent indicated that there was no direct knowledge sharing with the community, only by active, individual faculty members. This community member explained:

I don't see a kind of, a kind of effort or directive from the college about that, not only sharing the knowledge but just community engagement. You know I feel like that the community engagement piece between the college and the rest of the community is largely done through those individuals, faculty and staff...

Other respondents observed the same dynamic related to Berea college students – a general lack of engagement by the students as a whole. One Sustainable Berea member observed:

The community doesn't interact wisdom-wise with the students or the college. Obviously there's a great financial impact for the community by having the students here and that they do recognize. But I don't think there is a lot of flow from the college/students to the community which leads to why it's important for an organization like this to gather learning and knowledge from the college and the students and disperse it to the community via a different channel. There, that I know of, isn't a direct path from the college to the community.

One might hypothesize that some of these comments come from respondents who have not lived in Berea for long and have not been able to observe the fullness of the college/community collaborations. To some degree this could be true. The above respondent, for example, was fairly new to the community and admitted not having a lot of observation related to the college. But it is not true of all of the respondents, some of whom are community leaders and have an extensive and broad view of the community.

Still others engaged in explaining some of the barriers to collaborations between the college and the larger community. One lifelong resident of Berea indicated that although many faculty still live in Berea, and that has been common throughout Berea's history, it is not unusual for faculty to live in Richmond or Lexington, changing the dynamic of the relationship between faculty and the Berea community.

Another explanation is the barrier of differing political views. Berea is seen as a very progressive community and the college certainly plays a role in bringing a diverse student body and faculty to the community and challenging notions of status quo through the curricula. But the presence of the college does not change the fact that Berea is still a small, traditional, rural and somewhat conservative, Southern town. Though this issue did not always surface directly in interviews, one respondent named the issue directly.

Because Berea very much is a college town and it can feel like a very blue dot in a sea of red sometimes but if you, and I mean there are a lot of, it is a very, what I would call a progressive town, especially for central Kentucky but I think that...whatever tension exists between the community and the college as a whole, I think that that's definitely a big barrier to moving forward for anything,

especially if we're talking about resilience as a town, I think that that's going to be one of the biggest things, period.

In addition to the political challenges, there are also class challenges. To some degree, environmental action has been the privilege of those who could afford to be engaged. Transition towns have also been documented to be led by those who are older, white and who have accumulated wealth and have the opportunity to invest in the particular ways they do (Alloun and Alexander 2014). That is also the case with Berea. Those who show up for Sustainable Berea meetings tend to be middle-aged, white folks who are well-educated and of the professional classes. That also tends to be the perception of the move toward sustainability in the community. A community leader and resident explained it in this way:

So you kind of have, and that's kind of part of the challenge I guess so you know the sustainability movement in Berea is I think largely driven by this class of people so to speak you know that are typically fairly well educated, have you know decent jobs and household incomes and stuff like that and all that's great. The challenge is...engaging the rest of the community around it.

What we have here is an interesting, but perhaps not atypical, way of understanding college/community relations. Berea College has a high degree of investment in the community and many paths of engagement between the faculty, students and the community through various means of businesses, nonprofits, internships and projects of many kinds. In addition, the college has invested in infrastructure, such as the Eco-village and the SENS house that exemplifies various ways of approaching sustainability and community engagement. Still, there are community members for whom this engagement has escaped them and are not able to see these collaborations.

I will now move to examine Oberlin and the dynamics of how that community and the resident college get along. Though the mechanisms and dynamics are very different there, there are many similarities to what is happening in Berea.

Oberlin

This section is written in response to the same three questions as the previous section which are:

How is the college involved in bringing people together around this project?
How does the college community contribute knowledge to this project?
Are there other types of knowledge that are valued and welcomed in the project?

The data break down in a similar way to the Berea section. First, I will examine the general relationship of Oberlin College to the rest of the community as reported by my respondents. Secondly, I will look at how Oberlin is collaborating with the larger community related specifically to sustainability issues. Finally, I will examine some of the difficulties with the partnership that surfaced in the data. Several key similarities and differences will be observed related to the Berea data.

Oberlin College, much like Berea College, is a small college in a small town. While both colleges occupy prominent real-estate in and adjacent to their downtown areas, Oberlin College's size of approximately 2,900 students in a town of 8,286 residents (compared with 1,500 students at Berea in a community of 13,561) likely influences the dynamics of the community in different ways.

Much like Berea, or most college towns, professors contribute their time and intellectual energy to things like research that benefits the community, board service and helping organizations with grant writing and marketing. The influence of alumni in

Oberlin surfaced multiple times in my interviews as some alumni stay in Oberlin and continue to start new organizations and contribute to the community. Two restaurants in Oberlin were started by an Oberlin alumnus; these restaurants offer local food and attempt to operate in environmentally sustainable ways. Partnerships and cost sharing between the college, the city of Oberlin and the Oberlin Business Partnership provide hanging baskets to beautify the city as well as regular trash pick-up. Those three entities have also recently created a smart-phone application that allows residents or visitors to find and learn more about the city, college and local businesses.

One of the dynamic ways in which the college interacts with the community is through Kendall at Oberlin, a retirement home in Oberlin. Kendall is full of people who are not content to live out their years staring out the window in boredom. They are actively engaged in learning, attending Oberlin lectures, volunteering in the schools and occasionally running for city council positions. There are more than 88 committees that Kendall residents participate in and serve as ways to be engaged in the larger community, including an environmental committee. Kendall also offers students the chance to experience the Kendall culture through both paid work and volunteer opportunities. Students have also been active in projects at Kendall through service learning, such as a project to determine the feasibility of placing solar panels on the roof of the community's pool. The interaction between these two community organizations is obvious and in the first two interviews I completed in Oberlin, Kendall began to assert its prominence in the community. In my final interview in Oberlin, an elected official asserted Kendall's connection to the college and the larger community:

We have the retirement community, Kendal at Oberlin here and there are a number of retirees who you know maybe were Oberlin students at one point and they're wanting to come back in here in retirement and they're involved in different ways...they might just be mentoring in the schools but they might also be serving on boards or commissions or involved in helping facilitate some of the things within the Oberlin Project. There's a group of retirees who are helping with the community engagement piece; how do we...facilitate, engage and connect with those folks who...are hard to reach.

A Kendall staff member affirmed this connection in saying "we are who we are because we are influenced by the culture of Oberlin."

Culture is a very appropriate word to use here as there seems to be something about Oberlin that attracts people who want to be engaged. Again, an elected official commented:

Well I think that this community tends to attract not only you know the students and the faculty but others who want to engage in...the values and interests in this community. So we finished our Climate Action Plan update earlier this year and had a citizen group of somewhere around 30 or 35 people participating; some were connected directly to the college, I think a couple were retired faculty but others are people that are engaged in the community in different ways but you know wanted to contribute their slice of expertise or their passion and interest and they're not necessarily directly connected to the college but it's a way to interject and have a more broad based plan that more people can support.

Oberlin is a place where there is a high level of engagement from the college, the community at large, and a variety of organizations in the community including Kendall. One of the factors that allows this engagement, and to some degree provides a foundation for it, is class privilege.

In my experience at Oberlin, I was able to see how there was an intentional effort to use privilege to serve the community. There are clearly tensions between an elite liberal-arts college located in the middle of a solidly middle-class community. But

especially among the students I interviewed, they expressed a clear obligation to use their privilege for the community to which they were connected. One student respondent discussed their volunteer experience with children through a local social-service agency:

...especially for a lot of Oberlin students we have class privilege here and so...we're not intimidated by a bureaucratic system; we can help low income residents at Oberlin Community Services. We're not intimidated by you know math problems; we can help 7th graders learn their math problems.

The presence of the college and the culture it is active in shaping related to community outreach and service is visible in a variety of ways, some of which have been detailed here. One of the most important ways the college has been active in shaping the surrounding community is through its sustainability efforts.

Both Oberlin the college and Oberlin the city have been actively engaged in sustainability efforts for some time. In 2001, the city adopted a resolution embracing the United Nations Commission on Development 1987 definition of sustainability. Following that in 2004, Oberlin embraced sustainability as a central theme in its 2004 Comprehensive Plan. The college unanimously adopted the "Move Toward Environmental Sustainability" as one of its central strategic directions in its 2005 Strategic Plan (Oberlin Climate Action Committee 2013:6). In 2006, Oberlin College president Nancy Schrom Dye was one of the first college presidents to sign the American Colleges and Universities Presidents' Climate Commitment (ACUPCC), committing the college to climate neutrality by 2025. The city joined ICLEI, Local Governments for Sustainability in 2007 and produced its first Climate Action Plan in 2011 (Oberlin Climate Action Committee 2013).

Much of this work has been inspired by one of the central figures in Oberlin's sustainability efforts, David Orr. Orr's works, *Ecological Literacy* (1992) and *Earth in Mind* (1994) provided some fodder to inspire the movement in higher education toward sustainability, including the ACUPCC. In 1996, Orr organized an effort to build the Adam Joseph Lewis Center, an office and classroom building that would become the first of its kind on a college campus anywhere in the world. It features geothermal heating and cooling, passive solar design, photovoltaic solar power, and a "living machine" that processes the waste from the building.

In 2008, the city withdrew its participation in a 50 year contract to purchase power from a coal-fired power plant in Southeastern Ohio, despite Oberlin City Council's original vote to participate (Oberlin Climate Action Committee 2013, Ollstein and Riley 2007). Despite the contentiousness of the issue and the Council's original intention to participate in the contract, the issue seemed to foster more collaboration between faculty at the college working on the issue, Oberlin Municipal Light and Power System (OMLPS), and the city at large. The concern of those who wanted to participate in the plan was the ongoing cost of power to low-income residents. At that moment, and absent financing options for things like solar energy, coal power is the least expensive way to provide power, and since a sizeable portion of Oberlin's residents are at or below the poverty line, that is a significant consideration. After participation in the plant was ultimately rejected, however, is when the creativity and proactivity of the community set in. An Oberlin faculty member describes it as follows:

But as a result of those meetings and the work that we did, we developed a 5 year strategic plan and hashed out a number of issues and I think because we

had to deal with each other, we came up with much better solutions than we would have otherwise. And so one that I think is a really good example is when POWER first started...its mission is residential energy efficiency, especially for low income people.

Thus the organization Providing Oberlin with Efficiency Responsibly (POWER) was founded. POWER partners with Columbia Gas to provide energy audits for Oberlin residents and then makes recommendations and provides aid to help residents make their use of energy more efficient and effective for as little money as possible. POWER's board of directors is made up of faculty, OMLPS staff and community residents.

One of the innovative programs to begin recently in Oberlin is the Oberlin Wellness network. This is a network of professionals dedicated to improving Oberlin's health outcomes. A nonprofit leader in Oberlin explains the effort:

...we put together a network of people from the hospital, the college, the city schools, the city, the Oberlin Project and the businesses in town and...we're working with the Lorain Health Communities part of the Lorain Health Department and we are going to have quarterly canned programs; so and I just made banners for it and the thing is that if you live healthy, then you're going to have healthy communities but the reason we're working on it is part of our business enhancement area because healthier employees have a healthier return on investment for the business and those employees, especially if they live here, will get their families involved which then will get the community involved...

It is described here in a way that may be crass return on investment, but it is unique in its attempt to link the community's health to its sustainability in a somewhat holistic way.

There are two funds that originate from Oberlin College that also contribute to the community's sustainability efforts. The Green Edge fund originates from the premium that the college pays for green energy. From every megawatt purchased \$2 is

deposited into a fund that is managed by the City Council and is available to fund “local energy conservation and greenhouse gas reducing projects” (Oberlin College 2014b). The Green Edge Fund is administered by a student board and overseen by the College’s Office of Finance and Facilities Operations. This fund has two streams of revenue: one from the college administration and the other is the activities fee paid by the student body as a part of their normal semester fees. The former source of revenue can only be used to provide loans to project that have clear payback periods. The latter is used to fund projects on the college campus, and sometimes in the larger community, that do not have clear payback opportunities like “covered bike racks, a student operated garden, and a community renovation program” (Oberlin College 2014a).

Another important area of contribution by the college is that of research by both faculty and students. Throughout my interviews respondents mentioned projects such as student research projects related to cycling in smaller communities and a project where students researched the feasibility of a local nonprofit switching to LED light bulbs for gallery displays.

Some of the projects that surfaced in my interviews were also very complex, like this one described by a faculty member:

...there’s a project...we’re working on [related to] the soil carbon map. So there’s soil data available for the area and those data are not great and so the Oberlin Project knows we need better soil carbon information and so there’s a systems ecology class that’s going out and doing pilot studies on some soil carbon measurements and...two students in [a]...GIS class are then taking the soil map and the topography and the vegetation, like the land use for this area and coming up with unique combination that are likely to have different soils and different soil carbon and then coming up with an algorithm to randomly choose sampling points within those different categories so that we can have a better soil map.

This is a project not only involving complex ideas and methodology, but also involving the collaboration and sharing of information between two different college classes. It also illustrates a complex relationship between the sharing of knowledge between various elements of the college to facilitate learning that also facilitates progress towards the Oberlin Project's goals. An Oberlin elected official commented that faculty were working on projects that were, creative, locally relevant and helpful to the community's sustainability efforts:

So you know we're seeing more of those kind of creative projects and partners and partnerships that way. I think even some of the faculty at the college are on their own time you know with their own research, maybe on sabbatical or whatever, they're doing projects that are more locally relevant, yeah or at least have the potential to tie in with you know things we're doing here as well as other communities. You know for instance, ways of calculating embedded carbon in products that we buy for example so that if we're really looking at going carbon neutral, how do we...calculate that carbon right from the beginning of the manufacturing process.

It is clear that there are useful collaborations and knowledge sharing projects between the college and the larger community that contributes to various aspects of community life, and one of the clear beneficiaries is the sustainability efforts of the community. As the previous section detailed related to Berea, however, there are points of tension surrounding some of those efforts that surfaced in my interviews.

Tensions in the Oberlin Town/Gown Relations

The tensions that surfaced in my interviews were largely centered on how the college relates to the southeast quadrant, or the lower income section of Oberlin. This was a concern among many of my respondents across all categories, and perhaps was one of the most dominant concerns about Oberlin's future. Put simply, the issue was

how to reach this section of town and 1. not leave these citizens out of decision making; and 2. how to move forward with sustainability efforts in ways that did not marginalize that community.

As discussed above, one of those points of tension was the vote over the contract with the coal plant. That discussion and decision pitted those who had environmental concerns, especially from the college, against those who had concerns about being able to pay their electric bill, or those from the southeast quadrant and their advocates. A faculty member narrates that struggle:

And then I think the real catalyst was when 5 years ago, this community was facing a decision about whether or not to sign a 40 year contract for, to buy into a coal plant to generate electricity, a new coal plant and that really galvanized a lot of people to say, wow what a stupid idea and you know for all kinds of reasons. But...it was very, very contentious and the main, it basically kind of fell down onto all of the divisions that this community faces; so there's town gown, there's black/white, there's low income/high incomes and unfortunately, those categories have a whole lot of overlap. So...there were African Americans, poor people, people, or not even, actually it wasn't the African Americans and the poor people; it was the people that believed they were representing them were saying, we have to do coal fired electricity because you know we have to keep electricity rates low, people can't pay their electricity bills now, we have to do this. And then the environmentalists were saying you know a lot of things including economic arguments, moral arguments, you know whatever. Anyway, so the outcome of that was city council voted very narrowly to not do the coal fired electricity plant and then the Canton plant was cancelled and then it saved the town so much money that we didn't sign the contract and you know so we won, we were right. But...meanwhile...it was divisive and so before we knew...how the whole thing was going to play out, a group of us started meeting to try to work on issues of energy poverty and climate change together in a way that was...constructive and addressed the needs of both sides and it was very difficult.

This discussion has echoes very similar to Berea. In Oberlin, however, the tensions are even more pronounced because of the presence of a very elite liberal art institution that

contributes greatly to the community, but also serves the children of the wealthy from around the country.

One of the specific points of tension that surfaced in my interviews was that of the Gateway project. This is a project that will remove the Oberlin Inn, which is a hotel, restaurant and conference center and will replace it with a larger more accommodating conference center, commercial and office space, a culinary training center and a restaurant featuring local food². Also embedded in the project is an arts district that will bring economic and creative opportunities to Oberlin. An elected official describes the hope and intent of the project:

Well, from an optimistic economic development community benefit standpoint, I hope that the Gateway Project and Green Arts District creates an economic boost to downtown, that it brings more people to come and shop and eat and recreate in downtown. The Oberlin Inn is not the best, most favorite destination as a hotel right now. It's old, it needs to be updated, there's you know modern amenities that you find in a lot of economical hotels elsewhere that you don't find at the Oberlin Inn. They have great staff but it's just, it's a tired facility and they understand that. So I'm glad we're looking at replacement. I wish they were able to add more rooms so that we could kind of bump to the next tier of hosting meetings and host more people in town because again back to transportation, when we have something like parents week or commencement, there's only a few limited rooms in town and that means all of those visitors drive back and forth to hotels and accommodations outside of Oberlin if they can't stay in town. But from a downtown dynamic, I think you know hopefully it will be a catalyst that kind of raises the buzz in the area; more shops, more nightlife, that sort of thing.

From an opportunity and convenience perspective and from an economic development perspective, the Gateway project is about sustainable development, engagement with the arts and training in that direction. The construction of the \$32 million building is

² At the time of this writing, it has just been announce that the center will be named the Peter B. Lewis Gateway center after the benefactor who has committed \$5 million to the project.

emblematic of that as it will be a LEED platinum, state of the art facility. The new conference center is “envisioned to set a new standard for hotels and commercial buildings. Using locally sourced materials and thoughtful, provocative design, it will become a valuable amenity to both the campus and the community” (Oberlin College 2014b). It is certainly in line with the college’s efforts to create a sustainable community and in line with the larger community’s overall goals as well. Yet there are difficulties.

One of the difficulties is with the basic issue of inequality and the degree to which the college has alienated community members. A faculty member describes it like this, indicating “There’s a huge amount of economic diversity in this town and I sometimes worry that if the college is a catalyst for, is providing the catalyst or the impetus to get groups together, that you’re not reaching the groups that have been alienated by the college.” This is a perspective that is not difficult to understand, as I have already indicated, when there is an historic and elite college in the middle of a middle-class community that has been struggling for decades. It is certainly not cut and dry. Another faculty member excitedly (and indirectly) answered the criticism:

And it is a really, there is an unbelievable amount of hatred towards the college among certain sectors. And having been in a number of college towns, it is so irrational and like so not in relationship to what the college actually does for the town compared to what other colleges do for their towns that it makes me crazy.

It is possible that the issue here is not so much about what the college does for the community, but how the community is included in that work. A student addresses one related issue with the Gateway project:

I mean I think that this engagement issue is also really big, that there’s a desire to engage people but not an understanding of how to engage people so the engagement’s not really happening. And then for some things like this Gateway

Project; the reason why people feel like it's bad is because they haven't been engaged. Maybe at one point three years ago there was one conversation but starting whenever the last million dollars comes in, they're going to tear down the hotel and build something fancy and new and people don't feel like they had any part in that, even the people like me who thought that we had a part in it.

In addition to gentrification, inclusion and race, there is also a basic issue of what the goals are for the Oberlin project and how they understand sustainability. The same student continues and suggests that the Oberlin Project has limited its definition of sustainability and gives further depth to the understanding of how the issues are conceived by the community defined broadly, including students:

Obviously I'm very frustrated with this; this is my longest section, this answer; where students can, and the professors who teach these things can really lend I think useful analysis to the work that the Oberlin Project does, the work that other community organizations do, not by coming in and saying, you're problematic, you're racist and I hate you...but saying like, I can see in the way that like Oberlin Community Services operates or like I'll use the Oberlin Project. The Oberlin Project operates that we are beholden to narrow definitions of sustainability because of narrower definitions than I would like of sustainability because of our foundation funding, because of the vision of someone like David Orr. And so we end up putting our time and effort towards projects that like more closely map onto that and not towards projects that affect, that would benefit the people who are most economically marginalized and most like economically precarious.

The concern here is complex and related to foundation funding for the Oberlin Project, community perceptions and how this project may or may not be used to benefit the community at large in a way that is obvious and understood as a benefit. The degree to which the Gateway Project contributes to the forces of gentrification, however, is not universally agreed upon. Another Oberlin College student further illuminates the issues:

...I've talked a bit about the communication error; it's really deep, it's really deep. Students...are incredibly critical of the Oberlin Project because they see it as a force of gentrification and I think as somebody that's really engaged, I think they're wrong but the communication around it hasn't happened and it's hard

for me to do that alone... Gentrification's really complex, right? How do you [do] economic development that doesn't gentrify? I think that it's something that, and Oberlin students are so critical that you know I've been talking to a friend about like ally-ship with people of color and he's getting to this conundrum where if you do something without asking a person of color, like you're not being an ally, you're whatever. If you ask them, if you, basically it's, I won't get into that; it's really hard to do right by Oberlin students because the moment you try something, then you're tokenizing or whatever. So this is a big part of the story; the people are really critical and aren't engaging with it because it's complex and you need to understand a lot to understand how this is a force of good.

And, of course, criticism is easy and solutions to complex problems are much more difficult. The same student reflects on conversations with David Orr about the issue and provides insight on how difficult it is to steer a project like this without engaging in the complexity or even just committing to be engaged at all:

The big thing that David said when you know and we all hammered on him that like this hotel, you're not including people, you know...it's a force of gentrification. He was like, everybody at Oberlin is so excited to walk in here and tell me how horrible my idea is and how it's screwing everything up; nobody will walk in and say, let's work on it, nobody is you know. And that's a big...part of Oberlin College culture that people are really critical but really not willing to put in the work to figure out the solutions.

Oberlin College, however, is probably not the only place on the planet where the critics outnumber the solution-finders.

During the scope of this study, David Orr stepped down from the Executive Director position in the Oberlin Project and David Gard stepped into that post. At the time of my interviews there was a degree of uncertainty about what that would mean for the Oberlin project and perhaps some guarded optimism. One respondent, while referring to the project, commented "And frankly, I don't understand what it is now so I'm talking about what it was." Related to this issue of gentrification and sensitivity to

the needs of the low income residents in Oberlin, a student respondent indicated that there may be changes on the horizon:

...I have a lot of concerns about the way in which the Oberlin Project is...creating this sort of jobs that will gentrify or you know and I think with David Gard there's been a bigger push to like engaging economic development actually benefits the southeast quadrant...so that's been a shift.

The Oberlin Project, not unlike Sustainable Berea is a complex effort to attempt to change the habits, culture and driving economic forces in this community. These data show that both of these communities are moving those efforts forward in some remarkable ways, but that there is also tension in how those efforts are moving forward.

This next section will examine more specifically some of the mechanisms of learning that have been employed in these communities.

Mechanisms of Learning and Skill Development

In this section I will seek to describe some of the learning mechanisms used in both Oberlin and Berea. Specifically, the data from this section come primarily from three questions in my interview instrument:

Can you describe the learning opportunities that you have been a part of in this collaboration?
How have these opportunities brought people together from various places in society – professions, occupations, academic disciplines, subcultures, etc.?
What kinds of skills are you attempting to provide/learn in the move toward resilience?

This section will also examine both study communities together and will not segregate the communities as in the first section of this chapter.

Both communities in this study relied on a number of different mechanisms for learning and skill development. Sustainable Berea has a monthly meeting where there

is some kind of presentation involving skills for making the community more resilient. That may be a demonstration of beekeeping, seed saving or a presentation on urban gardening, which were all presentations that took place during my study period. Similarly, there are re-skilling workshops that sometimes take place apart from the monthly meeting.

Sustainable Berea has also been instrumental and influential in moving the community toward renewable energy and energy efficiency projects. SB was a partner in securing the grant needed to prepare the community for the Berea Energy Costs Savings Plan (BECS) and in promoting the Solar Farm initiated by the city of Berea.

Beyond Sustainable Berea, there is a lot of activity in the community. One of the mechanisms that has been in existence for some time is the Chemical Weapons Working Group founded by the Kentucky Environmental Foundation (Kentucky Environmental Foundation 2014). The founding of this group was a response to the presence of 523 tons of nerve agents and mustard gas in “projectiles, warheads and rockets” in nearby Richmond (U. S. Army Chemical Weapons Activity 2014). The group was organized to be a citizen’s watchdog to assure the safe storage and disposal of this large number of chemical weapons. The formation of this group provided a tremendous opportunity for members of the Central Kentucky community to learn about organizing and molding the shape and future of their community. One nonprofit staff member explained:

You know I think that was a huge learning opportunity, not only for people concerned about the chemical weapons issue but just broadly, this is how you make change; this is how you wield power to, you know with some of the most powerful legislators in the nation who happen to be our senators and in the past some of our representatives, this is how you tell the truth...to the Department of Defense, one of the most powerful institutions in the world.

This was an opportunity that provided both community learning and skills to change how their community related to power and an issue that could have major health and safety ramifications in the face of a natural disaster, human error or a terrorist attack.

An important mechanism for learning in Oberlin has been the community conversations project. An Oberlin College student explains the process and intentions of these conversations:

I think, so [we] started as I said creating what were called community conversations and facilitating these conversations, hour long spaces where we put up some pictures, asked a few questions but really just tried to collect the insights of people in the community and to what sustainability means for them and where they see their lives intersecting with different parts of sustainability work. So I think that was sort of the first education for me was creating space for people to share their voices and feel like they're being listened to because you know that's where sort of networks of resilience come out of is sort of the experience and the knowledge of people on the ground. You know you can't just sort of impose a model on Oberlin and say, this is how we're going to build resilience.

More than 120 Oberlin citizens were interviewed as a part of this effort (Bergen 2013).

One of the ways that these types of conversations are being shared with the Oberlin community is through the Dashboard Project. The Environmental Dashboards are a mechanism for providing real-time information on water, electricity and geothermal use for both Oberlin College and the wider Oberlin community. The community wide dashboard provides information related to total electricity use, water use, stream depth and weather (Oberlin Environmental Dashboard 2014). After about a decade of development, the students who originally began working on the college Dashboard started their own company, Lucid Design Group, which now has thousands of these displays on college campuses and in other buildings around the country. It

gives detailed feedback information on resource consumption. One Oberlin College staff member explained that it “gets into the psychology side of things a little bit more. And without that real time information, people can’t consciously make changes about resource consumption; water, electricity, etc.” Indeed, the feedback issue is an important one for understanding resource usage. This is related to the issue of systems thinking that I will address later in the chapter. A faculty member explained the importance of and the need for feedback systems.

We modern Americans in particular...[need to] be aware of longer chains of causality and wider rings of responsibility and feedback; you know we do not get feedback on the effect of our resource use; we get zero feedback on it. We get zero feedback on the cost of our resource use. We flip on the switch and the light comes on; we did not haul the wood, we did not haul the water, we did not see the water, the stream that the water came out of. We’ve got no clue, so it’s a completely broken system...[O]ne of the major purposes of the feedback technology is to help fix that system, to help create feedback loops. But I, you know when I think about what I have learned like in conversation with the utility guys is like it’s totally about understanding really complex systems; so the energy system, the electricity system is really complicated.

While the dashboard system may not provide information about wider issues of where these resources come from, they do provide a good opportunity for members of the community to understand something about the use and patterns of use of these resources. In fact, the Dashboard display for the Adam Joseph Lewis Center, which is largely powered by solar voltaic cells, does display how much energy is being used by or produced for the grid by that building’s solar cells (Building Dashboard 2014).

The touchscreen Dashboards are accessible in all of the Oberlin College’s residence halls and in the Adam Joseph Lewis Center. There are also dashboards in the Slow Train Café, a popular coffee shop in Oberlin, the public library and Prospect

Elementary School, one of the public elementary schools in Oberlin. In addition to providing information about resource use, there is also an interactive element related to the Community Voices project. The Community Voices project is an ongoing series of interviews of community members and their perspectives and interfacing with sustainability in their own lives. These stories are written up and added to the Community Voices Blog on the Oberlin Project website, but that also feeds into the Dashboard so that those interviews can be read by community members in familiar locations.

An Oberlin College staff member describes the significance of the Community Voices project:

...we have pictures of community members exhibiting sustainable behaviors or being involved in sustainability and some of those people didn't think that they were doing things that were sustainable and then we say, you ride your bike to work like every day; that's awesome and super sustainable and we're really excited that you do that. And they're like, oh I guess you're right. And you know you take a picture of them and say, oh I've been riding my bike to work for the last 15 years. And then we're like, yeah you're doing sustainability. Or I walk everywhere or you know the kids playing in their garden at their school or you know whatever those things are. So it shows...really diverse sort of pieces of the community from you know kids to the people who work at the library to Kendall to local pastors; you know it's just a lot of different people and the different things that they're excited about in terms of sustainability. I think that's a really cool piece that we have.

As indicated by this description, the Community Voices project is a way to involve a diverse set of community members in the production of a sustainable community, and to provide recognition for everyday behaviors that contribute to that project.

Another important mechanism on the Oberlin College campus is that of the Adam Joseph Lewis Center (AJLC). The AJLC is a physical embodiment of the

sustainability vision that Oberlin maintains. According to one Oberlin College staff member, David Orr's vision for the AJLC was to create a "culture of sustainability" and a place where "peer to peer" learning can take place. Learning in and from the AJLC takes place related to a widespread audience, as it is toured by "architects, by city planners, by NASA and by Girl Scouts," according to the same Oberlin staff member. The AJLC is in a category of buildings known as a "high performance building" but as those who are most familiar with the building, that may be a bit of a misnomer. The Oberlin staff member explains the interface of a high performance building with the social system that is required to maintain it:

You know a high performance building just means that we put a lot of fancy expensive complicated stuff in it, in this particular case, and if you don't know how to operate that, it will operate poorly. So we've found that you know high performance design has to be met with high performance management or else there's a large disconnect. And frankly, a great lesson we learned was that we didn't train anybody on the operations and maintenance side of things on how this building was really supposed to operate. It was built and you know oh sure, it'll be fine. I mean that caused a lot of problems...Then once you have all those technical problems figured out, which is the easy part, then you have to go into the psychology of changing things and we had a decade plus...of management and people form opinions when they deal with any technology... So what we found was a lot of people were convinced that things just didn't work and that it was because you know, for instance, the building has ground source heat pumps. Well, geothermal doesn't work in Oberlin; like there's nothing, there's nothing about the geology of this place that would nullify...using the earth's temperature to heat and cool buildings; it works fine but nobody was trained on how to use it. So there's been a lot of education, reeducation, overcoming kind of preconceived notions about the technologies at this building which are the technologies that we are implementing in more and more buildings on campus so we have to, we have to bring them up to speed.

The social learning aspect, then, interfaces with appropriate use of technology to make the systems work properly. Technology, according to this respondent, cannot solve our problems in and of itself, but must be used in conjunction with a learning community

willing to engage with the physical and social aspects of the technology to produce an outcome like carbon neutrality.

During the writing of this chapter, Berea College was recognized for a similar high performance building. The “Deep Green” residence hall achieved LEED Platinum certification and a score of 90 points, “making the facility the highest-scoring, LEED-certified residence hall in the world” (Buckner 2014). This is the latest in a series of buildings that have earned LEED certification, which include the Ecovillage in 2004 (LEED Silver) and Boone Tavern & Restaurant that was the first restaurant in Kentucky to earn LEED Gold certification in 2010 (Buckner 2014). According to the college website, and similar to the perspective of the Oberlin College staff member cited above, the Ecovillage is about learning.

The Ecovillage is first and foremost about education. It is an example of learning by doing. Residents and children learn valuable lessons in environmentally responsible living through everyday activities and shared experiences. Other components of the Ecovillage provide educational opportunities for the entire campus and beyond (Berea College 2014).

Perhaps even more to the point, Briggs and Olson, in an early article reporting on the progress on the goals of the Ecovillage, express a similar perspective:

The Ecovillage has regular educational programs for the residents on the how’s and why’s of energy and water conservation. This is critical because even the best design can only go so far in reducing consumption without lifestyle adjustments by the residents (Briggs and Olson, 2005).

In other words, technology and physical structures alone will not achieve sustainability; a complex combination of good design and learning are necessary.

In Oberlin, K-12 education also surfaced as a mechanism of learning. I indicated above that there is a touchscreen dashboard located in Prospect Elementary School,

which is a way of introducing elementary children (3rd-5th graders) to resource use ideas and to the larger community's sustainability efforts. Children's involvement in sustainability issues surfaced in my first two interviews in Oberlin. An Oberlin College staff member explained the relationship between the dashboard and Prospect

Elementary:

So we're trying to put them [dashboards] in community spaces where they'll be seen. And so the elementary school for instance; that's... part of a broader curriculum initiative that we worked on with a company called Creative Change and we're working to integrate sustainability into the curriculum K-12 in the community. And so the students...interact with that dashboard and it becomes part of their curriculum as well.

Creative Change for Education Solutions (CCES) is a national organization providing resources for K-12 sustainability and promoting what they call education for sustainability (EfS). Their approach "places food systems, revitalization, and other sustainability issues at the center of innovation and reform." For CCES, sustainability is not simply an add-on to existing curricula, "but a vital context for improving and connecting student achievement, civic engagement, and community wellbeing" (Creative Change Education Solutions 2014).

A review of the Community Voices Blog reveals multiple instances of community members acknowledging the importance of children and young adults in Oberlin's sustainability efforts. Ron Bier, a local high school teacher, addressed how he sees primary and secondary education and its relationship to sustainability:

I say 'dinner table talk', but talk within the house when the kid goes home about what they learned in school that day or what they talked about in school that day, all these different things over a course of a year, or four years, if the kid is in my Environmental Science class or in any class about environmental issues, they take those thoughts and lessons home and share it with their mom and dad—or

whoever they're staying with, it could be a relative. They'll ask, "hey, why aren't we recycling in our house?" or, "hey, I learned in school today that if we turn off the lights in the basement when no one is down there, we could save \$20 a year on electricity." We talk about the next generation: kids eventually become adults and their decisions are often formed as kids, through things they learned at school and things that they begin to understand about the environment and the community (Cabat 2014).

At the community level, these data point to a high level of awareness among a wide variety of community leaders, that sustainability education is an important priority.

Skills and Social Learning

There are a number of key skills that those participating in the transition town movement deem to be important. Through my interviews in both communities, I had many conversations related to the kinds of self-sufficiency skills such as growing food, beekeeping, supporting a local economy, increasing energy efficiency, and considering the use of alternative energy sources. As discussed above, both communities have mechanisms to promote and teach those types of skills. In response to my interview question related to skills, my respondents also identified a variety of other types of skills that go beyond the fundamental skills of transition communities to another level of complexity. I will present these skills that emerge from the data under two broad categories of individual skills and community oriented skills.

Individual Skills

There is a cluster of skills that were identified by a faculty member and student from Oberlin College: conversation and repetition, one-on-one relationships, and listening. An Oberlin faculty member comments on the value of conversation and

repetition in building relationships and bringing community members into consensus on important matters:

I think the theme for me and I don't mean to sound trite or repetitive but the theme for me is that people who have different perspectives have to talk to each other a lot and that there needs to be...a structure that means that they actually do have to talk to each other because I think it's much more comfortable to talk to people that you agree with and it's much easier to come up with lots of cool ideas in a nice little warm supportive bubble and, but then the cool ideas are not executable...And so I think...the place where a humongous amount of learning has happened is when environmentalists, people who are pushing for sustainability, I mean whatever, however you want to label...that group, have to or are in continuous regular...dialogue with city staff, with naysayers, with people from the low income community who are sadly are not often represented in the sustainability community...the learning happens because it's...repeated...there's something really important about the repetition...And so I think those personal relationships can help overcome all of the psychological biases and barriers that come up between people that are adversaries on some particular issue. So I think it's the repetition in part is important because it builds those relationships and I think in part it's important because there are no simple solutions to the things that we're trying to do and so the only way we're going to figure out good solutions is to really hash things out and that just takes...repetition. So I can't emphasize enough how important I think it is that people come together and talk and it's very time consuming and I've run into a number of very highly respected powerful people who don't get the value of that but I just, I believe in it so strongly.

This respondent mentions the "structures" that are needed to encourage this type of conversation, so this is one of the reasons that this is not only an individual skill, but it is embedded in other social and organizational structures that may encourage or discourage it from happening.

These types of conversations happen in the context of some sort of one-on-one relationships as the Oberlin faculty member indicates. "But the psychology matters too and there's a fundamental level at which I really believe that change happens through one-on-one relationships; a bunch of them you know in a context but without that

piece, it doesn't actually happen." Part of the context of these comments and of conversations that also surfaced in several other interviews, is the "conversion" of a prominent member of the Oberlin community related to climate change. This community member was a "climate denier" and eventually was convinced to be a part of some very progressive community programs that addressed climate change. This change happened in the context of years of conversation and relationships.

The third skill in this cluster of skills is that of listening. An Oberlin College student describes the importance of listening in the context of the Oberlin Project:

I think for, especially for an institution, for a nonprofit like the Oberlin Project, one of the most important skills is listening because resilience develops out of existing networks and structures and...so not just what [the] needs are but where people are moving right now and where their visions are right now.

From the perspective of these respondents and in the context of the experience working in the community and with the Oberlin project, conversation, relationships and listening are skills that emerge as important in accomplishing the tasks they have set out to achieve.

Another individual skill that surfaced in my interviews, one that would be considered very important among many in the Transition movement, is that of systems thinking. The faculty member who raised the issue of systems thinking did so in the context of the dashboard technology. The following quotation is part of the same quote used above in the context of explaining the rationale for the dashboard technology:

We modern Americans in particular, not, you know more so probably maybe than any other, any other group of humans in the history of the species is to be aware of longer chains of causality and wider rings of responsibility and feedback; you know we do not get feedback on the effect of our resource use;

we get zero feedback on it, we get zero feedback on the cost of our resource use.

This quotation is worth repeating in the context of understanding the importance of systems thinking. Systems thinking is fundamentally about understanding “longer chains of causality and wider rings of responsibility” as indicated here. It is also about uncovering and understanding root causes. Notably, systems thinking also involves talking across well-established, institutional lines. The respondent continues:

And I think we all need to learn that lesson. And the other big lesson that I think we all need to learn is, well I said this before already; talking across lines and that means talking across...lines like I disagree with you but also talking across like departments; like public works needs to talk to utilities and sociology needs to talk to psychology and you know...That we can't, we've been in silos and the silos were really, really useful for digging down very deep into particular problems...And now we have a really, really big complicated problem that's totally interconnected and we have to learn across those silos.

This respondent also indicated that it “takes flexibility and a willingness to be humble and...to learn new terminology.”

Another important skill mentioned by an Oberlin College staff member is that of perspective. Closely related to the skill of systems thinking, this respondent was really addressing how to understand the larger, global, economic and ecological aspects of the problems and opportunities we face. The respondent offered this thoughtful response:

I mean we need to accept reality and so that's I think a fundamental step is looking at it and thinking about you know the laws of economics versus the laws of thermodynamics and you know looking at population growth and what our resources are and you know kind of putting those altogether into a stew and kind of accepting reality; that's for me a first step.

This statement really gets to the root about what both of these communities are about in the sense of understanding the root causes of our problems at the highest levels and

attempting to communicate those realities to a larger audience and create some sort of change, at least at the local cultural level. This statement anticipates the questions I will address in Chapter 6 with regard to how respondents understand the relationship between market, state and community.

Finally, and also another skill that both bridges the individual and community oriented skills sections and also anticipates an important discussion in the next chapter, is that of promoting resilience. An active member in Sustainable Berea succinctly captured the idea that everything that organization does is related to helping members, visitors, and participants understand something about resilience and how they can incorporate resilience factors into their lives.

Well, from the very basics of teaching people what resilience is to helping to reinforce people in their quest to be more resilient and helping people understand why being resilient is important. So we hope to generate interest and have people see something that they want to do. For example, the beekeeping class. Maybe someone thought about beekeeping but had never pursued it because they didn't really know what to do to pursue it. Well maybe we provided them a launching ground now to go out and become that much more resilient on their own. So really, everything we do as an organization, we look at and say, even all the way down to vendors that come to our events; we say, does this vendor in some way, shape or form help people become more resilient.

This is an important statement that speaks to the focus of this organization and the clear, on the ground implementation of their vision. In Chapter 6 I will present the data on how these organizations understand and communicate resilience to their communities.

Community Oriented Skills

The data from my interviews reveal another level of skills that emanate from individuals and community groups, but target change in the larger social structures in which these groups and individuals are embedded. These skills include policy making/ holding industry accountable, community organizing, and replicability.

A nonprofit staff member identified the need to think about and change how their community operates in the realm of policymaking as an important skill.

When I mostly think about you know the answer to that question, I think of other skills that are necessary now, you know how do we acquire and use and kind of improve our skill set on making policy decisions and changing practices, not just of individuals but those institutions and industries located here that are using way more electricity and...generating way more pollution you know and which are a far, far bigger part of the problem than any individual household or group of households in the city. And that I think is a skill that we don't have yet, where we have not made nearly the kind of...inroads, influence that is necessary in order to truly change things around. I mean if you look at how energy uses and is used in Berea, you see the vast majority is coming from the industries that are located out by the interstate.

It may be tempting to understand some of the individual skills and the community level skills as being exclusive, but I think what we see from these data are groups that may focus on one level or another, but overall there is an understanding that either set of skills is not enough. There is an assumption in this response that progress has been made at the individual household level, but the work on the larger issues of holding industries to higher standards has not really begun. The respondent continues:

...I think a lot more people in the community do have skills at conserving and being efficient and living more sustainably; the part that we lack and the part, and therefore the skills that we need to have still are really following through with the agreements that the community has made in so far as our city council on setting some goals and targets for efficiency and generation of renewable energy and then you know skills in getting the unconverted major industries and

institutions to follow along but they haven't yet. Without that, you know we're just not going to make a lot of progress...

The role of transition communities in policy making is one that is somewhat complex and I will discuss that more in the final pages of this chapter. Another skill elaborated upon by another Berean from a nonprofit organization is that of community organizing. In many ways, community organizing is probably the logical precursor to policymaking and holding industry accountable. Before a community can change policy in the direction of holding industry accountable, there has to be a core group of citizens who are able to shift the conversations and regulations in that direction.

Well...community organizing I think is just fundamental. I think it's fundamental to democracy...and I think that's what community organizing does whether it's you know around particular issues, one issue or multi issues or things like...just providing people the opportunity to come together, to voice their opinions, to learn about actions that they can take...to make things better.

Both communities in this study have achieved significant accomplishments in terms of collaborating with the local government, and even making significant changes in their respective local governments with respect to issues like energy production and energy efficiency.

Many communities around the country and the world are struggling with the same issues related to carrying out positive change that will create more resilience and readiness for a rapidly changing world. In Oberlin, there were two respondents who were emphatic that what was happening in Oberlin was not just for that community, but rather to provide a model that other communities could use in their own efforts to become more resilient. Both respondents that emphasized this goal in the Oberlin

community were college staff members. One articulated how this sometimes works out in practice:

So they're getting skills that maybe they'll...stay here or maybe will go into other places in the world and they'll do really cool things there, too, which is I think one of the most exciting things about being in...higher-ed or really in education in general is that you know if people stay there, that's great; if people go into other places in the world and use...the knowledge and use their education and you know the brilliant minds that were sort of created and strengthened here, they do really cool things other places in the world and you know our goal in Oberlin or with the Oberlin Project is really that...we can become a model to other places so...I think it's really important to make the distinction between Oberlin does want to be...first at doing this. We think we're well suited to become a climate positive, really resilient community but we don't want to keep that here; we want other places to do that too.

This respondent speaks of the generosity of the Oberlin community in not simply doing great things in Oberlin, but being willing to let quality people go out into other places and take the knowledge and skills gained in Oberlin and do good work wherever they may land.

In the very next interview, a second staff member used stronger language in the need to see replicability happen:

...I think that for me, one of the key things that'll be a...measure of success or not in this and it's hard to know right now is that replicability. You know if we make, Oberlin, if we achieve everything that we're looking to achieve but we don't make it replicable, then that's a real failure, that would be a real failure...and if we drive out the portion of the community that's marginalized or if we just don't get the word out in time because while it's a great exercise in so many ways in trying to drive a community to be sustainable in this fashion, the real goal is that we need to make the entire world function like this in short order and so it has to be replicable.

Perhaps this is part of the DNA of the Oberlin project, as it pursues the goal of “not only a climate positive community but also a community in which its residents live, learn, and lead (The Oberlin Project, 2014).” As one of 18 Climate Positive Development Program

cities in the world and one of three in the U.S., they are set up to be a model community. But from the conversation with these respondents, the way that is being carried out is in a fashion that allows for openness in terms of knowledge and talent moving out of the community.

Finally, as a way of closing out this section, there were two respondents who provided a nice contribution to this discussion in commenting on the need for diversity in skillsets and perspectives. To make a transition community complete or to create a higher level of resilience in a community requires a diversity in skillsets. A Berea College student describes this need:

But I think that the, part of the benefit of that is being able to realize where people's strengths and weaknesses are and then being able to use that to fill in wherever there's gaps. And in terms of resilience, I think...that's, I don't know, maybe a social aspect of the idea of trying to increase diversity just in terms of ecosystems, you look for diversity and you want to have diversity of life and all of that and so I think that with skill sets, you need to also look for that diversity.

It was not unusual for parts of the interview conversations to revolve around ecosystems and this is a good example of how social constructions can, and from the perspective of this respondent should mimic ecosystems. Another important example of how social systems were compared with ecosystems is that of economies and the needed diversity in economies. That will be discussed further in Chapter 6.

If diversity of skills is important, perhaps it is the diversity in perspectives that allows those skills to be used to their fullest potential. An elected official in Oberlin explains how, in practice, that a diversity of perspectives allows a specific project to reach a higher level of success:

I think part of it is the synergy of having a variety of people involved in the process. Sometimes you know we may be thinking about...one idea but by the time we sit down with a board or commission to talk about do we think about implementing this, the fact that we've got...5 other minds at the table...creates some new perspectives and new ways of looking at, we're pursuing a zero waste plan right now that is somewhat overseen and driven by our, one of our citizen advisory boards and I think that their...involvement is making it a little bit more practical and...putting some reality checks on what the consultants...think might work. You know when you've got people on the ground here who understand Oberlin better than a consultant out of Columbus, it really makes...things a little bit more relevant and more likely to succeed.

Both of my study communities have demonstrated an ability to attract a diverse group of participants and also to use those skill and perspectives to benefit their work.

Conclusion

The data presented in this chapter represent a diversity of experiences, perspectives and efforts in each of the study communities. There are several themes that stand out from these data related to the introductory literature review in Chapter 2. In this conclusion, I will discuss three themes that tie together that literature and this chapter: knowledge sharing in the college-town setting, resilience, and mental models.

Knowledge sharing in the College-Town Setting

It is clear from these data that there is an effort from both of the Colleges in this study to share the developing knowledge in their institutions in a way that benefits the larger community, though some respondents seem to be unaware of these efforts. Although it is difficult from these data to make sweeping statements about how this knowledge sharing is occurring, there is reasonable evidence here that the actors in both of these colleges wish to share their knowledge and experience in a way that does not overpower the wisdom and knowledge that already exists in the community.

It is clear to me that when compared with Bowers' (2008) understanding of how higher education organizations can help us to think about and craft the future through detailing needed reform and clarifying what is to be conserved, both colleges in this study are providing this type of guidance. While that language would not necessarily automatically resonate with many in the higher education world, and it was not language that was readily available to my respondents, it is clear that these colleges, in partnership with other community entities, are providing detailed maps for the kinds of reforms that are needed and are clarifying what kinds of things in need of conserving, or preserving, in our march into the future.

Resilience

Though the focus of this chapter was not directly on resilience, it is a theme running through all of the data for this project. Clearly, the elements of diversity, modularity and independence, and tightness of feedback and systems thinking are present in these data as presented. Diversity is present in the way these communities understand inclusiveness, food economies and local economies. At the very end of the chapter I demonstrated how some respondents understand the necessity for diversity in ideas and perspectives. Related to diversity, both communities are also clearly moving toward a modularity that will allow them to “more effectively self-organize in the event of a shock.” As will become apparent in Chapter 6, the efforts in these communities will not isolate them from the larger cultural or economic forces, but will provide a buffer against shocks in order to achieve a higher level of resilience.

Systems thinking was also evident in several responses and became an explicit discussion in one response reported in this chapter. There was a high awareness of the need to focus on root-causes and understand a much wider circle of causality and a greater awareness of resource use, in particular.

Mental Models

While I do not remember any discussion of mental models among my respondents, these communities reflect an effort to reshape the mental models of those involved, particularly at the level of what gets noticed (Barr, Stimpert and Huff 1992). We saw in Chapter 4 that what respondents notice in terms of what the future may look like is very specific to a vision that leads members of both communities to pursue alternate understandings of and preparation for the future. In Chapter 6, we will see some of these alternate understandings continue as I examine more specifically how these communities approach issues of market, state and community relations. What gets noticed in communities also has implications for who gets included in community efforts (Hendriks 2009), and this chapter describes some of those issues, both for Berea and Oberlin. I find that both communities are making efforts to be inclusive in their approach to shaping the future, even if it is not always noticed by some community members. Related to inclusiveness, these mental models also influence the approach of each community in how they understand the role of community members and to what degree humans can be a means to an end (Fischer 1990), a theme that will also be pursued in Chapter 6.

Chapter 6 – Resilience

Introduction

This chapter will explore some of the issues and concerns that I believe are at the heart of my respondent's efforts to make their communities more resilient. More specifically, I want to examine how respondents understand resilience; how they see the interplay of market, state and community in creating local resilience; and how respondents understand human flourishing to relate to resilience and local economies.

This chapter addresses this research question:

How do respondents envision a resilient community and how does that relate to the major sectors of market, state and community?

The primary questions from my interview instrument that have been used to write this chapter are:

How do you understand resilience?

What are some of the important elements of your vision for what a resilient world should look like?

How do you think about the ordering of market, state and community?

Elements of Resilience

Despite the fact that one respondent indicated that resilience was "amorphous", many respondents did have some specific ideas of what resilience is and what it looks like in operation. And, as with the data from the previous chapters, there is both unity and diversity in the responses that make for a very interesting picture of how these community members understand resilience and what their hopes and fears for the future are.

General statements on Resilience

There were a number of direct, clear and succinct statements on what resilience is that provide a nice overview of how community members understand this idea. They revolve around themes of self-reliance with regard to basic needs, being prepared for whatever events or crises that might come and living a simple life. An active member of Sustainable Berea defined it in terms of preparation. “So, resiliency means being prepared with food, water, shelter, clothing and transportation. That’s what it means to me; being prepared and being able to survive comfortably.” The larger context of this quotation was being prepared in the event of a disaster and/or disruption in electrical power. It is also important to note that I used another part of this quotation in Chapter 4 in the context of understanding and preparing for risk. The way respondents framed their idea of preparation differed, but this response was clearly oriented toward a communal response to disaster as the respondent mentioned taking care of neighbors under such circumstances.

Another similar response related specifically to where the respondent’s household supplies came from. A Berea community member remarked:

the more we are able to rely on fairly local kinds of supplies and the things we need to have in order to continue living like water and heat and food...to the extent that we can be more reliant on ourselves and people we know around this general area and region. I guess the shorter that, smaller that supply circle is, that’s really critical to us.

A Berea nonprofit staff member made a similar statement that adds health to the definition:

I think the ability for people to take care of their basic needs defined as you know food, shelter, clothing. Health, decent health. I think you know that’s

really dependent on you know having enough of an economic base and enough access to goods either from locally or regionally...

These responses are obviously also related to the issue of resilience in the local economy, which will be addressed both in this section and a subsequent section of this chapter.

A Berea professor added three other intriguing elements to these definitions: simplicity, authenticity and intrusiveness. Reflecting on the question related to marks of a resilient world, the respondent indicates: “Yeah, I don’t think about a resilient world. I think...I probably spend more time thinking about how I can live a simpler, more authentic, less intrusive life.” This response gets at the heart of what this project is about, namely uncovering what authentic living means in a time of extreme changes and social turbulence. This idea will be picked up both later in this chapter and also in the final chapter.

Resilience as Response

Some respondents understood resilience as a response to or a positioning of the community for a particular event or new reality. These responses included adapting to changes, positioning the community in the larger regional economy, proactively absorbing change, preparing for apocalyptic scenarios or not, and responding intelligently to the larger set of circumstances in which we find ourselves. The first two responses here point to a regional response and give further depth and understanding to how we might understand the idea of resilience as self-sufficiency.

A nonprofit staff member in Oberlin defined resilience as adaptation to change and did so in a holistic way:

Well again, I think of resilience as a town able to adapt as we go through change. And you know environmentally of course those are obvious changes but again, I look at a recognition; again, schools or businesses; it's all those things that would say we are adapting to the changes coming up that we weren't prepared for. Or having insight enough to see what we should be more prepared for. We can see Lorain County is very important to us; we're part of Lorain County but what's happening in Lorain County with industry has impacted this area dramatically.

This response is of interest for several reasons. The respondent acknowledges environmental change in passing, but goes on to observe the necessity of understanding how large-scale changes have and will affect several social institutions. This response also locates Oberlin in the context of Lorain County and the changes that have come in the restructuring of American industry. There may also be an indication here that the industrial changes we have experienced over the last several decades is a reason to think more seriously and specifically about resilience and positioning communities to have the ability to respond to those changes in more productive and proactive ways.

A nonprofit leader and Berea community member also framed their answer in the context of the connectedness of their community to other communities.

...no longer can or should you know energy or food or anything be flowing in one direction, right? Everything has to flow in a number of directions at one time and that will you know essentially give us resiliency as a community and a state and a nation and so forth.

This comment comes in the context of a larger discussion about what resilience looks like in the context of not only a larger national or even global economy, but also the potential for enduring localized disruptions or disasters:

I mean there's no way I think that a community can be self-sufficient in this day and age. I think it's an illusion that we can be self-sufficient on everything because those same events can happen locally, right. I mean a flood is generally localized, right, so if you think that you're self-sufficient in food, all it takes is

you know a localized weather disaster and suddenly you don't have any local food, right? So you need to be plugged into the, you know the system. So whether it's food or its energy or transportation, whatever; I mean it's all about innovating and integrating, right? So we need to innovate in order to make our local systems more resilient and increase our capacity and then we need to integrate those you know in a larger scale with the current system.

This response is also insightful as it pulls together the ideas of innovation, capacity and resilience. It acknowledges the need for adaptation and building community capacity, but also recognizes the need to fully consider the connections to the larger economy related to food, transportation or other issues. An Oberlin faculty member also acknowledged the tendency to cast resilience in too much of a local frame:

...I think one of the issues that we have to grapple with, we, Oberlin has to grapple with is we do have kind of a bubble mentality and resilience also means being strategically connected to like what if, what if we have a crop failure here, right? We can't, like we need to be connected to other communities; we can't just be all about local, local, local, local; it's gotta be local embedded in a larger system.

Of course this statement also hearkens back to the issue of systems thinking in the previous chapter.

Harkening back to Chapter 4, some respondents defined resilience directly related to preparation for apocalyptic scenarios. An active member of Sustainable Berea said it like this:

So when I think of what things can be done as far as resilience, I tend to think of how could people snap back from the possible worst case scenario which would be apocalyptic if not near apocalyptic and that would be same kind of things that we're looking at.

But as chapter 4 made clear, other respondents were not motivated by the apocalyptic scenarios. This respondent, also from Berea, understands resilience along social class lines:

...I think a lot of times it's like we have to be resilient for when shit hits the fan. Myself, I just you know, I don't tend to think that things are going to happen like that. I could be wrong. I think we're just more often and already are really in a phase where you know people who...have a level of education and who had enough funds on their own to kind of take care of themselves and their home are going to be able to be okay but people who are already low income, who already can't afford their bills, who already have sketchy transportation, who are already not quite sure what their job situation might be, that gap you know based on resources, natural resources and money is just going to keep widening and widening and widening.

This understanding of resilience is embedded in an understanding of the future that involves slow-creep problems, but not sudden, catastrophic changes or crises. Of course, one of the purposes of building resilience in a community is to be ready for whatever might happen, so discounting the crisis event may not allow communities to achieve high levels of general resilience.

Two other responses are indicative of how both study communities are approaching the task of building resilience in their communities. A Berea College student defined resilience as "that ability to absorb change when it comes and then react to it in a proactive [way]." Resilience is a complicated set of interrelated ideas and achieving it at the personal and communal level will prove to be difficult for any individual, family or community. A nonprofit staff member in Oberlin, however, defines it in such a way as to make it stringent, but accessible. This respondent describes the minimum qualifications for those who would seek resilience: "...they don't need to be sophisticated but they have to be intelligent; they have to be able to chew up

information and with understanding and be able to know where they are and how to get from A to B.” This is a nice description of the mechanisms for becoming resilient: intelligence, the ability to absorb much and divergent information, awareness of one’s current place, and the ability to plan a route to a better location.

In a complex society that has achieved a high level of integration at the global level related to culture and economies, and in a world where our physical and biological realities are also changing more rapidly than anyone would have predicted even a few years ago, the level of proactivity, awareness and understanding of our reality is an impossible task. Any hope for success will necessarily involve the community at large and a communal learning process.

Resilience as Community Endeavor

Many respondents referred specifically to some aspect of community life when fleshing out what resilience is. This section will explore some of the ways that respondents understood resilience as a communal endeavor and the elements that they identified. While many of the previous ideas related to resilience also have some sort of community context, there were many responses that pointed towards the need to pursue resilience and the need to draw from tools that were social in nature.

An Oberlin College staff member offered a general statement about what resilience looks like at a communal level:

I think it looks like people having you know safe routes to school and safe routes to downtown and vibrant businesses and booming businesses and successful businesses and you know happy people in a healthy environment and lots of trees and green spaces and recreational opportunities and parks and all the things you think of when you think of a happy community. And you know renewable energy and, which create jobs...good paying, safe, meaningful jobs.

This statement is insightful as it identifies many of the elements that are important to this project: quality, safe transportation; healthy businesses; people who are happy and fulfilled; a healthy environment; green space and good, safe jobs. All of these elements are elements of our current world that can be increased and designed in as we seek to design out the opposite of these elements.

Cooperation surfaced as an important element in defining resilience. “Well I think cooperation is the key, is the key word in the puzzle. If we all worked together towards a common goal...and in doing so, would eliminate greed and we would also all contribute..., I think resiliency would almost just happen” said an active member of Sustainable Berea. Cooperation would seem to be a prerequisite to any sort of robust measure of resilience, but perhaps a basic requirement. That cooperation must be tangible and driven toward measurable outcomes. One of those outcomes may be the ability for a community to take care of its own members, or as one nonprofit staff member in Berea said, “the ability of the community as a whole to actually look out for its own folk.” Indeed this is an important aspect of the transition movement, that there is no “cavalry” on the way to fix our problems, and communities have to find ways to prevent problems and fix them when they occur.

One of the missing elements of this and something that communities will have to grapple with is connection and how we are connected to people and places. An Oberlin College staff member addressed the issue of connection to people and place:

But I think it looks like people uniquely connected to other people in their communities; people also connected to a sense of place. So actually you know liking Oberlin and feeling connected to Oberlin which also says a lot about like

the level of access that people have and the things they're able to do in Oberlin, so not just you know, we want you to like Tappan Square but we want you to feel welcome and happy in Oberlin.

Embedded in this response are issues of relationships, community building and even privilege. For community members to feel welcomed and happy is a challenge in any community and that challenge becomes more difficult when a community has difficult histories related to class or racial relations, which many communities have.

In Oberlin, an elected official mentioned how easy it is to ignore the structural issues present in a community:

But I think so built into that on the human level, on like a social level is you know listening to needs because often...individual needs come out of structural needs and we're very good as...a species at ignoring structural needs and letting them become crises.

Perhaps this respondent has identified a way of understanding resilience that deserves much more attention – that of prevention and of getting at root causes. The identification of root causes is an important element of systems thinking that has been an ongoing theme through these responses.

One of the structural issues that both communities are concerned with is the issue of consumption and one way of understanding resilience is in its relationship to consumption. A Sustainable Berea member defined resilience in just such a manner: "So people working together, everybody doing their share, consuming equally or not over consuming I guess I should say and replenishing what you consume I think is, you know it sounds so simple but it's not." Obviously consumption is something that is difficult to change on any geographical level, but perhaps there are ways that

communities, at different scales, can structure how we approach economics to change how consumption takes place.

One of the most personal responses related to these questions was a response from a Berea community member who framed this person's understanding of resilience in terms of a personal identity as an Appalachian. "Well the core of resilience for me is very much embedded in the region and the identity that I claim as Appalachian Berea community member." The respondent went on to frame resilience in a very positive light related to that identity:

I think we need to work toward greater resilience but I don't see it as something that we're somehow lacking and need to obtain as much as that we need to be conscious and intentional about. And what are we striving for; what have we accomplished; how can we take what we've accomplished; how can we take that local knowledge and experience of resilience and expand or modify or enhance it?

Framing resilience in terms of something a community already possesses and as something that merely needs to be expanded or enhanced is one of the most positive expressions that I witnessed in all of my interviews. Though this was the only respondent that framed resilient in this particular way, it may point to an asset that could play an important role in this community and others as well.

Unique Challenges to Each Community

This section is an examination of one of the most central issues to this project: that of the relationship of these study communities to the economic and political systems of which they are a part.

As in the previous chapters, I would like to highlight some unique challenges, opportunities and responses for each community, then move toward using the

responses to paint a picture of some of the more foundational ideas of what resilient communities, economies and political systems look like that transcend the unique differences of these two communities. There are particular efforts in each community that need to be examined individually in order to bring out some of the important aspects of how these communities are moving forward with economic development.

Challenges and Opportunities Unique to Berea

As with chapter 4, the issue of tax base and type of tax dependency surfaced as an impediment to resilience. Recall from chapter 4 that Berea is dependent on a payroll tax for much of the local tax revenue and because the college, as large landowner and also nonprofit, does not pay local taxes on its extensive amounts of property. A community member with a previous employment connection to the college indicated that what was needed was a “change in the tax structure to make us less vulnerable which is maybe another interesting bit of resilience for this community to have a tax base that provides income in a more resilient way.”

The issue of dependence is an issue that no community can ultimately overcome, as every community is dependent on something for its economic sustenance. There is a lot of discussion within the Berea community as to what direction the city should move to improve its economic position, which would also impact its tax revenues. One respondent was uncomfortable with Berea’s dependence on the tourism and craft economy and contrasted the economics of a more typical college town like Lexington with Berea:

... students come and they have a certain amount of disposable income and it drives that economy right around the town. We don’t have that at Berea; our students

don't come with that much money and so we can't rely on that so we rely on these tourists to come and if you look around here, the tourists who come, they'll buy a few crafts and then they leave; they don't really stay very long because there's not much else to do in the town. When the economy goes sour, what are people going to stop spending money on? Well they, do they really need that cutting board or that stool or that broom? Probably not so they might not come here to spend the money on something like that.

Berea is the craft capital of Kentucky, but if that is not a good foundation for a local economy, to what should the community turn? Two respondents in particular contrasted the "recruitment" mindset with where they think the community needs to go. An elected official explains this in the context of arguing that the local government can have a positive role to play in development, but not necessarily in a traditional way:

I'm not sure it gets a lot of attention but certainly government can and should [play a role in economic development] and the reason why it doesn't get a lot of attention because I think in Kentucky and in, and even in Berea, we still have this 1950's mindset that the way you do economic development is through recruitment; it needs to come from outside. Somebody who's got the money can come in here and invest and then hire your people and they can work on an assembly line or in some function. Not necessarily menial stuff but somebody would come in here and provide the means. Whereas there, the parallel track, and they don't have to be exclusive, they can work together and we've been trying to do this, is the entrepreneurship where you encourage people to invest and take risks and to figure out ways that an individual or a small group can start something and do something and in some ways control their own destiny.

Another Berea community member frames the issue similarly and argues for the need to educate others about the outdated mode of economic development:

...this is about community, you know educating a community, especially around economy, right? And for those communities that have for years and years been focused on this, a particular economic development strategy which is about recruiting business, right, and more often than not manufacturing...since World War II that has been the base strategy for years and years. It...no longer really works and in fact, that is why I think the...mayor started...the BEAT thing. But you know the fact of it is, we do, it's important we have a manufacturing base

here, I think it's good, it's good that we make stuff, right, in this country and it's, in some ways it's coming back...to this country, making stuff.

Both of these respondents are pointing to the fact that the recruitment model of development, while not to be discarded entirely, should be reconsidered as this community moves into the future. They are also pointing to BEAT, the Berea Economic Advancement Team that was put together by Mayor Steve Connoly. Several of my respondents were either involved in the effort or referred to it in the interviews. A nonprofit staff member defines what BEAT is and how it is supposed to function:

the mayor initiated what's called BEAT...it's the Berea Economic Advancement Team. So the idea behind BEAT was that there would be community led workgroups around just different aspects of the economy and you know what do we envision the economy of Berea being. And you know I think and part of it was, I think his response to the vulnerability of having a heavy manufacturing base and then because those folks, those companies often pick up and leave...So we formed that and...initially there was like 7 groups but it came down to 5 groups who are working on issues of sustainability; energy was one, food was another, big business, small business, tourism, I might be missing, finance I think was another one. Meanwhile, the city also contracted with a guy named Michael Schuman to kind of do an analysis of Berea.

Schuman's work was detailed in Chapter 3 but recall that his efforts are focused on engaging communities in thinking and action toward local investment in local businesses to create communities that are more self-contained and less vulnerable to economic downturns.

Later in the interview, the same respondent connects the dots between farming, risk and the efforts of BEAT:

You know it's like farming, right; farming's incredibly risky. So you know how as a community do we help those folks kind of mitigate some of that risk? I think that that's really important. And there's things that we can do...I think that...the BEAT work group around finance is an important one of those...some of the things they're trying to address is you know microfinance, things like that; you

know nontraditional ways of accessing capital that helps startups...And you know coming back, I think...local food entrepreneurship is a big thing and it's...very much supported in other places, shows a lot of potential...

Madison County and the surrounding area has traditionally been a farming community and continues to produce food for the area. But the point that this respondent makes related to risk is an important one. Owners of small farms competing with commodity agriculture is a tough business and for that kind of production to be scaled up to the level needed to provide a more than nominal percentage of food for a community is a difficult task. More than just the competition, the regulation and tax burden borne by farmers often makes it impossible to continue small, family farms and to keep them in the family. Microfinance might be a good place to start, but more may be needed to really encourage that type of development.

There is clearly support for moving an agricultural economy forward from some of the highest levels of the local government as indicated by this elected official.

I'd love to see the college which is moving toward organic farming and the college is, this fall is going to open up a farm store where they can sell a lot of their local products and I'd love to have, see them have a vineyard and teach [viticulture]...and even have, serve their own local label at the, at Boone Tavern. I...see a lot of possibilities for economic growth and entrepreneurship in that and there are other ways that we could try to help but it's complicated...

And it is complicated not only because of the governmental and economic reasons cited above, but also because Berea is a dry community; it is illegal to serve or sell alcohol there. One of the most surprising issues to surface in my interviews was this issue of "booze" in Berea. As I was conducting my interviews, there was an effort in Berea's City Council to make the issue of serving alcohol in Berea a ballot initiative for the community to vote on. The elected official cited above explains: "One of the things that

we need to do is we're dry here; we need to go wet. We can immediately help our small businesses by their access to alcohol in restaurants, maybe having brewpubs and wineries." But that is not a simple task. A nonprofit staff member and community resident explains the difficulties that are faced by those who would like to see Berea become a "wet" community:

But still, people are very conservative here; in fact you get out beyond the town limits and it's very conservative, hugely conservative which one of the consequences is Berea is dry, right, no alcohol here. And you know and that is, that has a huge impact you know on the community.

There is a conflict here between the values of many community members and the desire for some to make Berea a place where alcohol is more available, and that conflict creates another complication when members are trying to make Berea a more attractive community, both in terms of what it produces and what members are able to consume within city limits. Ultimately, this creates an impediment to the type of development that the respondents above are pointing to. I do not think this is merely a struggle over the issue of where and when to sell alcohol, but it is a struggle over what ultimately defines quality of life. This struggle surfaced in another conversation related to other quality of life issues. A Berea resident and nonprofit staff member discussed recent efforts to improve quality of life and the struggle within the community:

But you know what attracts businesses to move to a community or to entrepreneurs to start a business in a community; it is really about quality of life. You know where do you want to live and do this, you know do what you do? And so improving the quality of life is...number one. And how do we do that? I mean education is like really, really important but you know other things and art, you know the arts and crafts stuff is important to the quality of life but you know things like hiking and bike trails which Berea has done some of that, right. Ironically there's folks who resisted that...The people on city council...[thought] we're spending a lot of money on that and you know we

should be spending it someplace else, right, who look at it as...kind of frivolous when in fact it's an investment, right? It's investment in improving quality of life in the community...So that is I think the underlying thing that you know one of the education things that we need to do in the community is how do we improve the quality of life here.

Of course, features that might appear to be quality of life features can be very useful for improving resilience as well. Bike trails and other infrastructure for non-fossil-fuel dependent transportation can be quite useful when the price of fossil-fuels moves beyond what community residents can afford. Having talented, smart, productive people in the community could be a useful asset when the standard ways of making a living do not work anymore.

Finally, the last element that surfaced in my interviews that was somewhat unique to Berea, relative to Oberlin, is the lack of a unified business voice. Whether this is a problem is a matter of perspective, but it does indicate something about the business climate in Berea and the direction of that sector, or lack of one. A Berea resident commented on this lack of voice:

And maybe they [the Chamber of Commerce] have more impact than I'm more aware of but I just don't see it. I mean I don't see a common business voice you know in this community. It would be really a good thing if the businesses in this community...had a voice, a common voice...but even in that it would be you know a bit challenging because...there's the locally owned businesses here you know, then there's the outside owned businesses here and then there's really the manufacturing you know here so. So I think it's really challenging to come up with...one voice...

The issue of ownership appears to be a source of some amount of conflict related to how businesses coalesce as a sector. A member of Sustainable Berea indicated that organization has had difficulty contributing to encouraging local economic development because of the classifications involved in that. How would one define a local business?

Members of Sustainable Berea have tried to put together a directory of local businesses, but it has always floundered based on an inability to agree on what is local. An active member of SB, speaking of an owner of a local food franchise, quipped, “I mean he’s 4th generation Berean, he, you know he lives right here, you know how local can you get?” Of course, no one who is serious about local enterprise would consider a food franchise a local business in any meaningful sense, primarily because of the “leakage” issue that I discuss below. With this in mind, it is a bit easier to understand how there would be disagreement on how to define local businesses, who to include and then how to proceed with any type of unifying agenda.

Though Oberlin has some of these same challenges, the relevant issues there are different and the general climate for seeking resilience is overall somewhat different. I will now turn to an analysis of Oberlin, the progress it has achieved and the ongoing challenges to resilience.

Challenges and Opportunities Unique to Oberlin

There are three issues in particular that surfaced in my interviews with Oberlin respondents: standards in attracting incoming businesses, Zion Community Development Corporation and Oberlin College’s Impact Investing. While interviewing a respondent who was involved in economic development for Oberlin, I asked a follow-up question related to how Oberlin addresses the kinds of industries and businesses that it seeks to attract.

So because of the college’s environmental studies, because of the Oberlin Project, because of the city, we’re naturally indisposed to doing those kinds of things, or disposed to doing those kinds of things. So when we look for companies to come into town, we kind of look at a mental checklist. Of what do

they offer and do they fit Oberlin; would they be successful here or would they be successful but not the kind of company we want here. So I think that most of the people from government to just the ordinary people would look at that. Fracking is one thing that people here are absolutely against. Even though it could be you know hundreds of thousands of dollars but just the environment is more important. The new building that's taking place; the city would really like for it to be green...So and if you look at our industrial park, most of the companies there are green or they're technological companies that don't pollute the environment. So I think really for the most part, this city believes. And everybody that looks at bringing companies in believes that we have to protect our environment because we do want this to be sustainable.

According to this response, there is a mixture of cultural norms and specific practices that point to a set of standards that can be used to filter the types of businesses that come to Oberlin. The comment on "fracking" represents an issue that was very current during my interview period. On November 5, 2013, the citizens of Oberlin supported a "Community Bill of Rights" ordinance 71% to 29% (Urbanik 2014). This ordinance essentially bans fracking, or hydraulic fracturing, and any storing or transportation of oil or gas products within the city limits of Oberlin.

A second feature unique to Oberlin is the presence of Zion Community Development Corporation (Zion CDC). This organization serves the southern and predominately African American part of Oberlin and its mission is to "revitalize our neighborhoods through resident empowerment, public improvement, community development, and education and employment opportunity" (Zion Community Development Corporation 2014). One of my respondents was involved with Zion CDC and spoke to the synergy between the Oberlin Project and Zion CDC's development efforts:

And...we're embarking on some projects there that are related to building energy efficient carbon positive housing for low income residents and the

Oberlin Project sort of adds an avenue and a dimension to that you know. When we partner with the Oberlin Project on these houses, we're going to be able to speak to another portion of the community that's interested in sustainability...Because of the Oberlin Project, we're now working to build a carbon positive house. We can now see that possibility. You know we've met the architects who can do that and we can you know. So I think on that level sort of helping nonprofits expand their vision of what's possible and especially nonprofits who serve low income residents and people in the county like expanding you know; we'd love to do sustainability; moving from like, yeah we'd love to do sustainability to like we can do sustainability to like we can do sustainability that works with other nonprofits.

Recall from Chapters 4 and 5 the social class and racial tensions involved in the Oberlin Project and the controversy around the purpose of the Oberlin Project and how it would be carried out. This particular piece of data represents some of the promise of the collaboration between the Oberlin Project and Zion CDC and perhaps some of the tensions that exist between the Southeast quadrant, the city at large and the Oberlin Project.

A third unique aspect of the development efforts in Oberlin is an effort that was announced by the college during the time I was conducting interviews. In the fall of 2013, the board of trustees announced an Impacting Investment Platform, which is a mechanism for taking money from the college's endowment and investing directly into the community. The October 2013 Board of Trustees update provides a general understanding of what the platform is and what its goals will be:

Impact Investment Platform will combine socially responsible investing with student-trustee-administration collaboration. An Impact Investment Platform subcommittee will provide policy recommendations to the Investment Committee...In addition, the Impact Investment Platform contemplates investments with a measurable positive effect on targeted social and/or environmental issues, while earning a competitive rate of return. We are excited about the future of this initiative, which places the college in the vanguard of

educational institutions seeking a constructive approach to socially responsible investing (McGregor 2013).

This is the type of investment that local economy advocates like Michael Shuman advocate and also the type of investment that students at Oberlin have pushed the administration to consider. A student respondent commented on this announcement and addresses how this type of investment could be used to impact resilience efforts:

The college just announced this impact investing platform where they're committing to something like \$5 million dollars over 5 years to impact investing which is where you invest for the purpose of the impact that your investment have...But...there's conversations happening here. The bigger thing is that we have businesses that exist, we have businesses that we want to see exist, we have affordable housing that exists, we have more affordable housing that we want to see, we have farms that we want to see change their practices; all these things that require investment that we don't know how to invest in.

This student points to an important dynamic that exists in many places where even people who may be interested in changing the dynamics of the economy, the kinds of businesses present or the way they farm, but those things are simply not possible without capital investment. Though it remains to be seen how this will play out in Oberlin, what types of investments will be made and how much risk the Investment Committee will assume, this is a demonstration of one more step in the direction of local investment into the community.

Market, State and Community

One of the central challenges to both study communities is the relationship between market, state and community and how to transform the status quo into something that is more socially, economically and ecologically resilient. As with many of the other questions from the study instrument, respondents had strong opinions and

some specific notions of how these three sectors of society should relate to one another. The data from this section break down into three sections: 1. The role of government; 2. Problems in the current economic system; and 3. Strategies for creating a resilient economy.

The Role of Government

One of the assumptions of the Transition movement is that there is no cavalry coming to rescue us. Communities have to address their own needs and their own self-sufficiency because the community level is the most appropriate level to address community needs and prepare for whatever risks might follow. But my respondents were not willing to let government at any level off of the hook in the process of making their communities stronger. Many of the respondents had specific ideas for both diagnosing what has gone wrong in government, for what the roles of government should be and how to get it back on track.

A member of Sustainable Berea succinctly stated the overall role of government and presented a perspective on how the current conversation began.

I think the government has to be run with the protection and sustainability of its populace in mind. I think, going back to Hurricane Katrina; I think we never saw a greater failing on our government's part than what I will always consider and I think many Americans consider was the primary role of government and that was to step in with the power of government when local individuals could not do anything and it totally failed at that. And I think that started a good argument; what is the role of government. That's never gone away; what is the role of government in society. I mean the role of government is to sustain the people whether it's through their health, immediate health or long-term health and we need people in government who reflect those values.

Even if the conversation about the size of government began long before Katrina, the point from this respondent is not lost; Hurricane Katrina was an event that identified

major structural weaknesses in both how agencies of government operate and who is or is not a priority in those structures. It may have also identified the paralyzing role of complexity in organizations that will be addressed later in this chapter.

Several respondents identified the role of money and financial contributions in government, but had different ideas of how that issue should be addressed. Another member of Sustainable Berea identified the money in government issue and proposed a change in the basic structure of how we do government.

And so much of that battle has to do with who had the most money and who won, who won the battle financially. If we could start really looking at the battles from popular vote for example. Who wants to raise the tax on gas so that we use less of it? Let's take a vote. Is it more than 50% or less than 50%? If it's less, you don't do it. But that's not the way it works. It has to do with, in that case it has to do with oil companies and their interests battling environmentalists and their interests and whoever bends wins and that's what the law gets to be. But it has, you know not to look at just environmental and non-environmental issues; it's all issues I think have to do with money and then somehow that money has to be taken out of the picture in order to make that work well.

While it is not likely that we will change our current form of representative government any time soon, this respondent's perspective is not out of step with other respondents.

Consider the following perspectives from a Berea community member and a nonprofit staff member in Oberlin.

And then so I, if I could change one thing in that sort of set of dynamics, it would be to make the state function better as an entity that is driven by concern for the people in the state. And not as an entity that is driven by a concern for where the biggest contributions are going to come from when the next elections roll around.

And I think many times our government, because they're politically centric now instead of, which I believe they need to be is job centric based on the fact that they are supposed to be servants of the people. So one of the things I would do is somehow, and I don't know how it could possibly be done but bring it back

down to every day they have to answer the same question I answer is why am I doing this. Is it to meet a budget or because I want to win the election or is it because I need to do this because this is required by the people or this is something that needs to be done? And I know that's really ethereal but ultimately, and that's how this country started and that's how we should I think go back.

The unifying idea holding all of these perspectives together is that of a government that has the needs of its people as the highest priority. And it is easy to understand why as our society has become larger in terms of population, more diverse and more complex, citizens would find themselves in a place where they feel they are less of a priority than they might have been in the past. This, of course, is related to the perspective of two of these respondents is that concern for citizens has been replaced by concern with money from wealthy corporate donors and serving their needs. And this is certainly related to the next section, which examines respondents' understanding of what is wrong in the marketplace and how that relates to regulation and the role of the state.

As noted in Chapter 4, there were different understandings of the role of regulation among the respondents. One respondent identified insufficient regulation as a problem for moving toward a sustainable economy, and one respondent identified regulation as a barrier to moving toward sustainability. This first respondent, much like some of those above, sees an inappropriate focus on benefits to a small number of shareholders and a neglect of the role of keeping the corporate purpose in check.

But that's sort of the driving focus is how to enrich the shareholders and there's just, it seems to me the cultural current I was sort of reaching toward is saying that that's just sort of the way it is and that's okay. So that makes me think that government regulation is really crucial. It's almost like playing a basketball game without referees you know where you can say what's charging and blocking but what the coaches will do is sort of teach their players to get away with what they can and that's based on their perception of what the referees will, both what the

rules are and also what the referees will enforce. And I don't think it's that much different in terms of the way; this is not exactly the way markets work but it's, but it has to do with the way in which corporations function in, within the markets. So I think there's, I would, there is a need, there's certainly a need for state to be a significant regulator.

It does not take much of an imagination to understand the need for regulation in a world where corporations readily admit to pouring billions of pounds of toxins into our land, water and air. On the contrary, it may also not be difficult to understand how regulation can be a barrier to creating a self-sustaining economy utilizing small scale production. A Berea faculty member describes how this can be a problem with a bit of Berea history:

We had a cannery, the college was producing a lot of its own stuff to feed students, students were working, doing everything on the campus so you didn't have to hire outside contractors to do things. Now you've got OSHA [Occupational, Safety and Health Administration] that says students aren't allowed to do that; you've gotta hire in somebody with insurance and with these certain credentials to do it.

A thriving, local economy where local people can use their creativity, history and talents to build the infrastructure to create new way of relating to global capital, will certainly have to find ways to change or reinvent this type of regulatory regime. This next section will unpack what my respondents thought that new economy should look like.

A New Economy

At the heart of this chapter and at the heart of what both of these study communities are trying to accomplish is that of transitioning to a new economic model that is not subject to the whims of global capital and allow communities to reap the benefits of their labor, while treating people fairly, not exploiting the environment and valuing what it is to be human at the deepest levels. While there is significant

agreement on what some elements of that economy would look like, there was divergence particularly in how much of the current economy can be reformed or used as a base for future progress. Probably the strongest statement against the reformability of the current economy came from a Berea faculty member.

Alright, well we have an economy that's dominated by large corporations and people and that really runs the country so I think you have [a] government [that] is subservient to the economy as ruled by the 1% I mean to put it very simply. Communities are used and discarded as benefits the short term profit of the economic powers. Eastern Kentucky is a perfect example; it's being totally exploited and destroyed and when the coal's gone, then the economy will walk away and give no, won't look back over its shoulder at what the rubble it's left of communities and they're disposable. So right now, we have an economy that I don't think's reformable. I think it has to be removed and then something else based on local economies and all might be able to come in. But that's another thing. Most transition communities think that life as it is can go basically as it is as long as they recycle a bit more and have a few parties and talk about the change they want to see and all that stuff because they've been bought off too; they're comfortable now.

This respondent raises an important issue of the relative comfort of much of the population, despite their being exploited, an idea that deserves further exploration. The same faculty member continues, identifying another key element that surfaced in two Oberlin interviews as well, that of infinite growth.

So we have a planet-destroying economic system that's based, that requires infinite growth. I mean it's designed, whether it's how money is made or any of these things, it must grow. And it's, as Jensen would say, its goal is to kill things and convert it into wealth and you don't tweak that...

An Oberlin staff member also expressed a lack of "faith" in the current economic system and gets to the heart of the infinite growth paradigm.

I don't have a whole lot of faith in it right now because while we have for the past couple hundred years been able to find suitable alternatives for whatever it is, we just kind of, the driving motion you know in this quasi-religious view of

economics, you know it's this, oh sure, it's all mathematical and we have equations for things and it's all fine but it's fundamentally flawed in that you can't support infinite growth on finite resources.

The harshest critique of the limitless growth paradigm in economics came from an Oberlin student. This quotation not only harshly criticizes that assumption, but also sets some of the stage for other elements of a reformed economy identified by other respondents from both communities related to consumption and production, local economies and alternatives like the sharing economy.

But I think that keeping prosperity in the community is really important so figuring out ways to produce what needs to be produced and consume what needs to be consumed from mostly the local area, you know the local economy and the local biosphere is really important. I mean I think that institutions of democracy and accountability and whatever are really important and cooperation; I think that if your eyes are open, I think that it's clear that an infinite growth paradigm is bullshit and does not reflect reality. So I think that communities that understand that and work to understand how de-growth can happen in a positive way is a fundamental part of resiliency and figuring out you know how do we deepen prosperity, how do we make this place more prosperous that doesn't rely on infinite growth and doesn't promote you know; how do we do prosperity without producing more shit and consuming more shit. And so figuring out a more sharing economy, you know all the fun things like a tool library and you know all these things that, where you can end, all the beautiful things of an economy that thinks, that centers people instead of the allocation of goods and resources.

It is difficult to overestimate the value of this quotation in summarizing much of what I want to say in this chapter and also as a unifying quote around which the observations of other respondents can be organized. It addresses prosperity, local economy and local biosphere, production and consumption, the problems with infinite growth and a people centered economy with a sharing element. It points to a new way of thinking about the economy and to some of the elements that other respondents pointed to as well.

When discussing what a resilient economy might look like, respondents described it in terms of diversity and a long-term perspective. One of the dominant themes was that of being local and one of the manifestations of a local economy is that of stopping leaking resources as explained by a Berea community member.

So a significant piece of the thinking I think in that area has to do with trying to cut down leaking of resources going out of this community that could be going into this community. So just one you know small example of that is if we don't have any grocery stores here, all the grocery business is going to go to Richmond or Lexington if all we have here is Walmart because of the way the profits; most of the money that comes to Walmart winds up going out of this community to shareholders and so forth.

This issue surfaced in a previous chapter related to the localization efforts of both communities and the work of Michael Shuman. Both communities have this as central to their transition efforts. As detailed in the case study analysis, there are many goals and strategies each community has for creating a localized economy. But even beyond the goals and strategies of the communities at large, individual members of the community are not without their own ideas for how the economy should work and ways to make it succeed. An Oberlin College staff member expressed confidence in the flexibility and nimbleness of acting at the local level:

I think...that a lot can be done at the community level. I think that, and I think this is where like you look at markets and you say you know markets and this is like...I guess in our current regime, like a very conservative kind of way to look at it is that there's a lot of mobility in kind of small communities and flexibility to make changes where you want to make those changes. And that's what we're doing here you know in Oberlin so I have a lot of...respect and faith or whatever in the community's ability to make a change; you know you're mobile, you're agile at that kind of smaller scale and so I value that really highly.

This is perhaps one of the significant appeals of having a more localized economy as a goal is that it provides a certain amount of empowerment for residents as they navigate

a particularly precarious global economy. Communities, and particularly smaller communities, can pivot and move in new, experimental directions. In fact, what my research has uncovered in previous chapters is that both study communities are active in pursuing alternatives to the status quo and both have governing bodies that are committed to pursuing alternate arrangements. My research also supports the idea that both communities are using the elements of the system we are embedded in for their community's advancement, but tweaking the model as they see fit. An Oberlin student described one way of acting at the local level within this system:

Yeah and I think it's important for me to always remember that capitalism functions on multiple levels and...on...so many different levels and so...I have a problem you know maybe fundamentally with or structurally with sort of big business' role in controlling foundations which control what nonprofits can do, I think practically or...contextually I want to help local nonprofits write grants or...collect resources from local foundations, building those relationships you know towards projects that like are actually justice oriented or, and sustainability oriented, resilience oriented. And so you know I fundamentally think the system is broken but you know I practically think that we can... take components on a local level you know that are, that they're capitalists right now because that's how like capital flows in society, that's how money works but what they are simultaneously is a relationship between 4 or 5 individuals built around a project vision and so...creating that and then like maybe the global economy falls apart, maybe it doesn't but in the meantime, we've like increased...local food access in the community.

While many of the efforts of both study communities are positioned squarely within the rules of the current economic system, there are those who would certainly prefer to see some changes in the system that are more fundamental. Another pair of Oberlin residents had some very specific ideas that would move their communities in different directions. An Oberlin faculty member proposed an idea that would change how we think about who is employable and for what reasons.

I think we need to spend a lot more of our money on paying people to do things rather than buying physical objects and I think we need to spend more time hanging out in cafes and walking up and down the streets and sitting on our front porches. I think we need to know the people that grow our food and you know like I think we basically need a world that is much more oriented towards a service economy and much more oriented towards face to face interactions. And I think you know, I believe that for a number of reasons. I believe that because you know the research is very clear that face to face interactions with people are one of the best things to improve quality of life; it's just you know, it's so important and it's, and it doesn't hurt the environment you know...[Y]ou get something for nothing from the perspective of...carbon and resource use and all that stuff.

While the current service economy has already changed the linkage between the production of physical goods and the economy, and the sharing economy is further changing that relationship, this respondent's ideas push further and challenge the ideas of formal employment and productivity and question the dominant paradigm of how compensation works, suggesting a very different kind of financial arrangement. The final quotation that I will use for this chapter is from an Oberlin student that provided a summary of a way of modifying our economic system and particularly how ownership works. It is based on David Schweickart's book *After Capitalism*:

And so what he [Schweickart] says is capitalism doesn't work, the socialism that we've [seen] doesn't work, let me present an alternate model of socialism. And the way that his socialism works is you keep markets for goods and services; he says other ways of deciding on production and allocation don't work because they like centralize it; it doesn't work. So he says we'll keep that; that's not the problem. And just like what Marx says, the issues of the market are in labor and capital; that's where the market falls apart. So he says, let's make every single business a worker owned business and while that doesn't completely, people are still working and still have to compete in a labor market because you still need to get a job but it eliminates most of the conflict between worker and the business or worker and the capitalist because the capitalist and the worker become the same thing when you're a work owner.

The student adds that all of the elements of this model are already present, so it is not necessary to reinvent anything to fulfill this model.

Conclusion

There are several themes that run through this chapter that are consistent with the previous chapters. One theme is that respondents expect more from the current political and economic arrangements as they exist. They are not satisfied with the outcomes they are experiencing and they expect that there are ways that they can experience different outcomes beginning with the current arrangements and creating change. Another theme is that many of the respondents think that the current arrangements are not working at all and that the social, political and economic systems have to be significantly or radically changed in order to achieve a reasonable level of sustainability.

My respondents are also echoing, and perhaps drawing from, some of the larger conversations either from the academy or simply conversations happening through the literature emerging from various places in the sustainability world. There are three strands in particular that seem relevant. The first is actually a combination of two, that of green economics and a critique of neo-orthodox economics. Scott Cato (2009) offers two ways in which her statement of green economics differs from that of the dominant economic paradigm in the academy and are also important in understanding my respondents. First it is inherently concerned with social justice. Second, it is emerging from the bottom up in places where communities are building their version of a sustainable economy. My respondents do not make much of a distinction between

their work in government, economics or sustainability/resilience work. This is a theme that has also been consistent across all three of my findings chapters. All three of these areas are held together and there seems to be little effort to elevate one above another.

Regarding the issue of building a new economy from the ground up, there is some divergence among the respondents. A few of my respondents occupy positions of power and influence either in local government or in important local or state-level nonprofit organizations, and perhaps are not as interested in up-ending the system and starting over, but are interested in making progress from where they are currently. Others are obviously more pessimistic that the current system can be reformed in any meaningful way.

My respondents want an economy that meets their needs for meaningful labor, that provides for the needs of all members of the community and they want this economy to work in such a way as not to sacrifice the ability of others to have the same opportunity in the future. For this task Heinberg (2011) provides an apt summary that will close the chapter. “The only efforts that will aid in the long run are those that contribute, in some tangible way, to the realization of a pattern of human settlement that is culturally and psychologically rewarding, and that supports rather than undermines the integrity of the Earth’s living skin, our only home” (286).

Chapter 7 – Conclusion

The purpose of this chapter is three-fold. First, I bridge the gap between the previous three findings chapters and the academic literature. This will both provide some interpretation of what is happening in my study communities but also go beyond it to suggest potential forms of thought and action. Second, I will provide a set of recommendations for these communities, drawing on both the case-study data and the academic literature. These are recommendations that may be considered by the study communities but they also may have general implications for communities in transition. Finally, I will provide some recommendations for further academic research.

Risk, Growth and Complexity

The respondents in previous chapters are dealing with an assortment of issues and are grounded in a variety of standpoints. In this section I will begin to interpret what some of the respondents are saying explicitly or implicitly using some of the literature on risk. This is not to say that these interpretations capture the intentions of all of these respondents, but rather these interpretations capture some of what is happening overall with these respondents and to some degree, the intentions of each of these study communities.

While the two communities differ in some respects, both are attempting to increase the amount and kind of local expertise through which risk can be managed and “to develop new institutions through which this democratic impulse can be supported” (Rose 2000:71). As these institutions develop, they would need to depart from past practices in several ways. I will highlight three here from Ulrich Beck. First, how to act

can no longer be determined by experts, or at least solely by experts. This raises questions about the “authority of the public, cultural definitions, the citizenry, parliaments, politicians, ethics and self-organization” (Beck 2000:218). A second characteristic of these institutions is that of questioning security and progress, or the origins of our security and how we understand progress. Beck indicates that “The discourse of risk begins where trust in our security and belief in progress end” (213). These communities are by definition looking for a new locus of trust and security in the midst of turbulent and changing times. The status quo for where security comes from and how progress is measured is no longer useful or appropriate. By implication, the third characteristic is that these institutions and societies will have to be reflexive. “A society that perceives itself as a risk society becomes *reflexive*, that is to say, the foundations of its activity and its objectives become the object of public, scientific and political controversies” (222). Or in other words the official views, the official recommendations, or the official goals are called into question and held to a different standard of evaluation. Beck continues, “Unlike most theories of modern societies, the theory of risk society develops an image that makes the circumstances of modernity contingent, ambivalent and (involuntarily) susceptible to political rearrangement” (222). This susceptibility to political rearrangement is what is necessary for change and an opportunity for transition communities to create the change they desire.

A theme that was present in my data and an issue I want to respond to here is that of questioning economic growth. This was not a theme shared by large numbers of respondents, but some of the strongest statements among any of the findings were

related to this issue, and the issue was raised in both study communities. The respondents in chapter 4 referred to this issue explicitly and spoke strongly, but allusions to problems with reliance on continual growth were likely under the surface of many of the other comments throughout these findings.

Questioning infinite growth on a finite planet is not new and the consequences to an end to growth could play out in a variety of ways. The findings of the original efforts to understand the limits of the planet's resources in relation to economic growth in *Limits to Growth*, and two subsequent re-statements of those findings, indicate that limits would not necessarily be reached in an abrupt manner, but rather humanity would rather be forced to "divert more and more capital to cope with problems arising from a combination of constraints" (Meadows, Randers, Meadows 2004:xi). Collapse is certainly an option, but it is on a continuum with the "smooth adaptation" of our footprint. The idea of questioning the limits of growth is not popular anywhere in the broader culture and certainly not in neoclassical economics and is not even popular among those who agree that climate change is a problem but think that action on climate change can be reconciled with continued economic growth (The Global Commission on the Economy and Climate 2014).

While the larger economic debate will not likely come to an end any time soon, at least some of the respondents here are more than willing to question the hegemony of the status quo understanding of the infinite growth paradigm. Perhaps Tim Jackson's (2011) perspective could serve as a proxy summary for my respondents.

The idea of a non-growing economy may be an anathema to an economist. But the idea of a continually growing economy is an anathema to an ecologist. No

subsystem of a finite system can grow indefinitely, in physical terms. Economists have to be able to answer the question of how a continually growing economic system can fit within a finite ecological system (14).

This statement is at the heart of what is wrong with the assumption of continual growth – a subsystem like the economy cannot grow indefinitely within another system such as the planet we inhabit. This is, however, the assumption of our global economy in just about every place on just about every level. The assumption of growth has a local and a global dynamic. The local dynamic was originally developed by Molotch (1976) and later Logan and Molotch (1987) several decades ago in their work on the local “Growth Machine.”

Growth machine theory consists of three basic ideas. First, the “political and economic essence of virtually any given locality, in the present American context, is *growth*” (Molotch 1976:310, original emphasis). Secondly, regardless of how split political elites are on other issues, there is consensus on the desire for growth and it provides an “overriding commonality” (1976:310) among politically important people. Third, the growth imperative becomes the central exclusionary feature of any efforts to political or economic reform. In other words, the imperative to growth excludes other options for local initiatives that might otherwise be considered as options. Other options could include limited growth through the establishment of urban growth boundaries, slow growth or standards for the types of industries and development that would constitute growth. These ideas lead Molotch to conclude that “the very essence of a locality is its essence as a growth machine” (1976:310).

There are three additional ideas important to this original statement of growth machine theory. The first is that any given parcel of land represents the aggregated interest of some individual or group of individuals. Thus in Molotch's conceptualization, the urban political elites view land with a profit motive. Secondly, each unit of a community strives to enhance the profit potential of the land with which it is associated and this enhancement revolves around enhancing the profit potential of that particular piece of land. Third, both the government and corporations are active in determining "growth chances" (1976:312) in any given locale. The government, through decisions involving subsidies, taxes, labor costs, pollution and safety standards, etc., is an actor in determining land use and growth patterns. Corporations, through their decisions of where to locate are also very much involved.

The later work of Logan and Molotch (1987) builds on these ideas. They continue to argue that growth unites the elites and that this united front on growth is used to eliminate competing ideas for the role of local government. They add two important concepts to these previous ideas. One is that local elites are united behind a "doctrine" (1987:32) of value free development. This doctrine assumes that the free market should determine land use decisions and the results are that the local community forfeits control over both the content and location of production. This disempowers communities to determine their futures and the types of communities they want to be. The underlying assumption here is that growth is good regardless of the social good of the products involved, the processes by which those products come to be produced in a location or the negative ecological or social consequences. It should also

be noted here that a clear stratification has evolved over the last century as to what communities can attract what types of industries, and the work of Robert Bullard (2000) and others has documented this stratification and the consequences for communities. This stratification involves the ability of communities at the top end of the hierarchy to attract “clean” industries while those at the bottom end get to choose among the polluting and extractive industries.

The second important idea is that of the role of the rentiers. Similarly to the original 1976 statement, these individuals increase aggregate rents and “trap” (1987:50) income for those who are poised to benefit. Another role for these rentiers is that of intermediary between the corporate elites and citizens, which serves to mute any local opposition to the projects of the growth machine. “Any threat to the growth machine apparatus thus endangers the ongoing system through which sites are prepared for capital under more or less ideal conditions” (1987:34). This role, then, protects the interests of capital from opposition that might threaten the efforts of the growth machine.

The dynamics at the global level are much the same and at every level the dynamics of growth are defended by politicians and corporate leaders. One can observe this in any newspaper or news network and observe that there are virtually no political or economic organizations in the mainstream that question the need for and commitment to economic growth. Indeed, economic growth produces something of an economic/ecological conundrum. Because the global economy is based on debt, growth must continue to service the debt commitments that have been made by individuals,

corporations and the public sector. If economic growth continues, however, we will exacerbate all of the issues that I introduced at the beginning of chapter 1 related to climate change and ecosystem damage. There are those that argue that economic growth can be decoupled from throughput and extraction of resources, but Jackson (2011), Schor (2011) and a host of green economists such as Scott Cato (2009) have argued that this is more fantasy than reality. The 2008 financial bubble was revealed to be what Barry (2012) has called a “massive Ponzi scheme” (p. 128) which did little to question the fealty to the market principles and the doctrine of economic growth.

The Problem of Complexity

Closely related to the problems of risk and growth is the issue of complexity. Complexity is related to risk because it describes the mechanisms through which risk operates. Or in other words we create risk by increasing the complexity of societies and by using it as a tool past its usefulness and past the point which it can be reasonably used and controlled. It is related to growth for the same reason – economic growth is predicated upon increasing complexity of economic investment mechanisms, tasks, research and education.

In its simplest form and drawing from the work of Tainter 1990), complexity is merely “a problem solving strategy” (1990:195). A more formal definition of complexity is “the size of a society, the number and distinctiveness of its parts, the variety of specialized roles that it incorporates, the number of distinct social personalities present, and the variety of mechanisms for organizing these into a coherent, functioning whole” (1990:25). As societies develop and encounter problems, they tend to find solutions to

those problems that are increasingly complex. It seems that there are two particular mechanisms at work here. One is the issue of marginal return, defined by Tainter as "increase in the total output resulting from the input" (1990:92), or put simply, what a society gets out of any given investment. Because the number and types of problems faced by any given state or society are infinite, the solutions employed to solve the problem are numerous.

As solutions require more and more complexity, societies run out of resources to deal with that complexity. This is related to the second mechanism at work which is the number of problems generated by a society, and as that number of problems increases, a society has to devote more and more resources to solve those problems, and eventually marginal return zeros out. A contemporary example of this is crime and jails. Over several decades it became fashionable and politically advantageous to get "tough on crime," which led to criminalization of many activities and full jails and prisons. As our economy has declined it has become impossible for some localities to continue that system, so laws have begun to change and people who have been imprisoned and jailed for a variety of infractions, including violent crimes, are released due to lack of funds. Thus, "a society invests ever more heavily in a strategy that yields proportionately less" (1990:195).

This understanding of complexity intersects with my data in two ways. Related to education, one of the goals of both study communities is that of education for basic and necessary skills. This is in part a response to the risk of collapse (a point I will return to soon) and also an effort to create a different kind of economy, the subject of the next

section. Specialization has many advantages, and I would not argue it is inherently bad or undesirable. But, as tasks get more complex and education has to match that complexity, Tainter argues that it can interfere with marginal return:

And where the need for certain kinds of specialized tasks arises and disappears, the investment in training may be largely wasted...A society able to meet its needs by generalized education, will inevitably, then, obtain greater value for its investment than will a society dependent on specialized training. As complexity and specialization increase, the cost of education does also, while its marginal product declines (1990:105).

A return to basic skills then may be a necessary part of our future that my study communities are heavily engaged in.

The risk of collapse mentioned above was detailed in chapter 4. Some of what my respondents are indicating is a preparation for a world that is less complex, or a type of collapse. As argued above, the end of growth may take place in the form of collapse of economic and perhaps political institutions, or the slow adaption of the necessary systems to a new reality. Collapse here can be seen as simply a “process of decline in complexity” (1990:31), not necessarily a fall into “primordial chaos” (1990:198). Tainter sees collapse as a “rational, economizing” process that can potentially benefit large parts of the population. In order to transition from one kind of economy to another, however, we have to understand how our economy has been created and constructed in the sociological sense.

Questioning the Hegemony of Capitalism

One of the barriers to creating an economy that works for all of the major global interests is the hegemonic relationship that capitalism has in the vernacular of economic language. Since the fall of Soviet Communism in 1989 and the rise of capitalism in

Communist China, it has become common to understand capitalism as the triumphant and unquestioned mode of production. There are several elements that are important to this discussion.

First, the language of capitalism and conventional economics provides the language within which conversations and political debates must take place. In this way, the capitalist marketplace becomes naturalized and thus depoliticized (Barry, 2012). This is one of the criticisms of Ecological Modernization theory, which essentially allows the pro-growth, capitalist machine to continue in an unquestioned manner, and is essentially "designed to remove the radical political potential from the green agenda" (Scott Cato 2009:107). Any proposals that are labeled "inefficient," "irrational," or "anti-competitive" are understood as not measuring up to the orthodoxy of economic rightness and action (Barry 2012:124).

Second, the hegemonic position of capitalism, through the doctrines of neoclassical economics, creates a value system that mandates allegiance.

Economics does not merely describe and explain or predict the world; it actively creates and recreates it in its own image and in line with its own value system and logic. One of the more interesting features about neoclassical economics as an ideology is that it requires passive consent, empty displays of loyalty, rather than active belief (2012:126).

One of the most basic and common tests of loyalty is dedication to the doctrine of economic growth, while "criticizing economic growth is tantamount to a fundamental act of *betrayal* in modern societies, a public act of *disloyalty* to the modern political economic order" (2012:124).

Third, the orthodoxy described above removes the opportunity for diversity of thought in economic analysis. Not only does this prohibit a diversity of perspectives in analyzing a particular issue, but it hides the fact that in any given time or place, there are a multiple economic options and models coexisting. The current use of a naturalized capitalism equates this one economic form as the unitary definition and sum of all economic activity rather than understanding economic spaces as “disaggregated and diverse set of practices unevenly distributed across a varied economic landscape” (Gibson-Graham 2006:117). Or in other words, what is actually one model or option of many becomes “the very model or definition of the economy” (35).

Finally, capitalistic thinking becomes a totalizing, central idea that assumes a central role in society. Polanyi (1947) summarizes this idea:

The market pattern...being related to a peculiar motive of its own, the motive of truck or barter, is capable of creating a specific institution, namely, the market. Ultimately, that is why the control of the economic system by the market is of overwhelming consequence to the whole organization of society: it means no less than the running of society as an adjunct of the market. Instead of economic relations being embedded in social relations, social relations are embedded in the market (p. 57, cited in Barry 2012:121).

And this is at the root of many economic and cultural problems and a very important aspect of what the communities in my study are responding to. It is this totalizing view of the market economy that takes precedence over everything else that various elements in our culture have sought to change. Particularly since the economic crash of 2008, the various elements of the sharing economy have multiplied to challenge the way we do transportation and acquisition of goods and services. Some of this response

has been out of necessity, but some of it has happened out of a need for diversity in our approach to economics .

Diversity in our approach to economics should also mean more than the dual options of socialism or capitalism. Jackson (2011) asserts:

On closer inspection, it turns out that the whole debate is far too polarized. The reality is that pure state ownership and pure private ownership are just two variants in a quite wide spectrum of possibilities. Perhaps most interesting here are the various models of 'distributed' ownership and control which have a surprisingly long pedigree and are beginning to see something of a resurgence (201).

If understanding capitalism as the only option lacks creativity (Scott Cato 2009), then creating a polarized view is equally lacking in creativity. The optimal diversity may in fact be a diverse array of both capitalisms and socialisms, properly defined. Arguably who is in control is the most significant question when envisioning a new, more diverse economy. Politicians and corporate executives have assumed control of the levers of the economy, while the polis and the citizenry have abdicated control. "...Nothing could be further from the green vision for a sustainable economy than the centralized, bureaucratic, materialist and overweening state that practical applications of Marxist philosophy tend to produce" (2009:19). And the same could be said for a centralized, bureaucratic, overweening corporate state.

Questioning the state is not merely in the purview of economists of various stripes, including green economists, but rather has a deep history in the social sciences. Particularly, the questioning of formal rationality to the neglect of substantive rationality was a concern for classic sociologists like Weber.

The dangers of state intervention are the increasing powers of bureaucratic administration. What particularly concerned Weber was the tendency for bureaucracies to rely on the formal rationality of procedural correctness to engender a sense of civic obligation to the neglect of the more fundamental need to win support for the substantive rationality of the policies. (Cotgrove 1982:70)

It is clear to me that our task is to design for a system of governance that is sensitive to the need for substantive rationality that allows for self-reliance in the context of boundary making related to large-scale issues such as carbon reduction. As Woollacott (1998) adds, “future risk can only be scientifically measured and managed collectively” (121).

Two things are needed to create diversity and options outside of capitalism. One is what Laclau (1990) calls “dislocation” enabling the idea that “other economies are possible (cited in Gibson Graham 2006:xiv).” We have learned to see capitalism as “coextensive” with places and nation states, rather than seeing the inherent diversity that is actually present (117). “Representing the diverse economy is a deconstructive process that displaces the binary hierarchies of market/nonmarket and capitalist/noncapitalism, turning singular generalities into multiple particularities, and yielding a radically heterogeneous economic landscape...” (xiv). Recognizing that there are other options than capitalism and recognizing the capitalism/socialism dichotomy is absurd is necessary to create other options. The second necessary element is recognizing that this diversity already exists, but has been obscured by pro and anti-capitalist rhetoric and efforts. As Gibson Graham point out, when independent producers who own their means of production and control their surplus labor are labeled as capitalist entities, “an opportunity to represent economic difference and to

theorize the specificity of both capitalism and independent commodity production is lost” (41). Whether it is an independent coffee grower in South America or household labor in the U.S., overcoming the hegemonic hold of capitalism comes in recognizing already existing diversity.

There are a number of factors that can contribute to this process. Some of these are already in place in my study communities, and some may not be.

Elements of a New Economy

In order to create a new type of economy that begins to solve the problems represented in this project there are a number of elements that should be considered. This section will explore some of those elements. Some of these elements were explicitly mentioned by the respondents in this project and some are a more detailed look at what both communities are attempting to accomplish with their efforts.

Plenitude

One potential way of thinking about how a new economy would be constructed is to begin with Juliet Schor’s (2011) understanding of plenitude, which she indicates is the “chance to be rich in the things that matter to us most” (2). Schor elaborates on four principles of plenitude: 1. a new allocation of time and an effort to “replenish the human connections that were depleted in the boom years” (5); 2. self-provisioning and moving that from a craft movement to something that has more economic significance; 3. true materialism, which is the idea of taking the materiality of consumption seriously without insisting that we use a scarcity paradigm to understand our situation; and 4. restoring the investments in each other and in our communities.

Echoes of all of these elements can be heard throughout these three findings chapters. These elements are evident in respondents' wishes to not be slaves to a production economy that does not treat the material world or the lives of workers with respect and does not allow them to make connections with their family and community. These respondents also want to be more self-sufficient in their acquisition of goods, or at least to draw from goods that come from concentric circles that are closer to where they are and that benefits their local economy at a greater level. They want out of the treadmills of production and consumption that threaten their health and vitality, their future and the future of the planet they depend on for all of their needs.

A Change of Scale

Communities that successfully make the transition from status quo to resilience will need to break out of the tyranny of over-dependence on multi-national corporations and their lack of commitment to place and people and move toward a scale of production that allows the advantages of business to be realized locally in terms of profit, quality and the enjoyment of work. Figures such as William Morris, Robert Owen and Peter Kropotkin have influenced the "idealization of small-scale, self-sufficient human communities, based on craft work (Scott Cato 2009:19)" and localization. But making an economy more local or more centered on the needs of local consumers will not necessarily go far enough if it also does not meet the needs of workers as well. One of the ways to frame this aspect of the economy is in Illich's (1974) idea of the convivial economy:

I choose the term 'conviviality' to designate the opposite of industrial productivity. I intend it to mean autonomous and creative intercourse among

persons, and the intercourse of persons with their environment; and this in contrast with the conditioned response of persons to the demands made upon them by others, and by a man-made environment. I consider conviviality to be individual freedom realized in personal interdependence and, as such, an intrinsic ethical value. I believe that, in any society, as conviviality is reduced below a certain level, no amount of industrial productivity can effectively satisfy the needs it creates among society's members (cited in Scott Cato 2009:101).

If the economy is in a state where it needs to be rebuilt and retooled for reasons of sustainability and to simply work for a broader number of people, I argue that this issue of conviviality should be understood as a standard against which all economic development is evaluated.

To clarify, I would argue that the size or the type of production are not the important factors, but rather the relative value of the work, the integrity and justice that goes into production, and that the production fits into sustainably available resources including energy. What this means practically is that those engaged in production are engaged in something meaningful to them and that they are treated fairly in the process. One could imagine this standard could be realized in a factory owned by a multi-national corporation or a family owned business. When the importance of the product trumps the importance of the people doing the work, that is when the idea of conviviality as used here is violated and interferes with the ethical appropriateness of the system.

Recommendations

Through my research in these two communities and my examination of those inside of and outside of academia who are considering issues of sustainability, resilience and a new economic approach, I have distilled my findings to a few recommendations.

These recommendations should not be read for application to the two study communities alone, but could apply to any locality that wants to increase its level of resilience.

Recognition of Risk

In Chapter 4, I showed that many of my respondents were not interested in spreading the doom and gloom attitude sometimes present in ecologically aware circles. While that is understandable, community members should not shy away from diagnosing and critiquing the current set of problems that we have that have led us to our current political and economic situation. They should be particularly engaged in helping community members understand the effects of aspects of our financial system, financialization, food systems and climate change. It would also be advantageous to give attention to those in the community that are at risk economically and work on creating local mechanisms where possible to address their risk. I will address the issue of inequality below, but I am particularly thinking of young farmers that are at risk of not being able to begin or continue in their chosen field because of burdensome regulations and tax scenarios. Some of that will have to be done at the federal and state levels, but local support systems should be considered.

Continue to Challenge Recruitment Mentality

While various approaches to economic development and variations to how economies in general should be run and conceptualized, there was little to no variation to the idea that the recruitment strategy for economic development was inappropriate, out of date and would not work into the future. I agree with this assessment, and while

my respondents could virtually speak with one voice on the matter, the wider community will continue to need “tutelage” on the issue. It is encouraging that the elected officials in both communities understand the problems with the recruitment mentality and are actively seeking development that does not exclusively involve outside recruitment of industry, but rather creating local elements of a sustainable economy. Community members should continue to push for this latter type of development and educate the wider community on the need to transition from a post-war, 1950’s model of economic development to a model that is more appropriate for a different time and a multitude of different concerns. The use of light manufacturing for the production of machinery and tools that can be further used for local production could be important aspect of this development.

Challenge to Growth

Related to the model of economic development is the issue of growth. While there were strong statements about challenging overall economic growth by several respondents in both communities, there was certainly no consensus on the matter and few efforts by either community to challenge the growth doctrine. In fact, both communities fit quite nicely with the standard growth paradigm and seem poised to grow both economically and in population. If there are any communities in the US that are able to challenge this doctrine, however, both of these communities have the potential to experiment with a no growth paradigm, or to at minimum experiment with policies that would encourage a steady-state economy and a higher level of self-reliance.

Self-reliance and Strategic Connection to Other Communities

Self-reliance is built into the goals of both study communities and there is a clear acknowledgement that there is also a need to be connected into other community networks. Both communities are well-placed to develop strategic connections to other communities for cooperation and collaboration on a whole host of issues including food production and manufacturing of goods. Establishing those networks could be regional, statewide, national or even global (Cannan 2000). The development of trade partners for the purpose of quality economic relationships across various scales would be in the spirit of the Transition Network's emphasis on global connectivity, but could also build alternate ways of relating to other people and places for purposes of trade that go against the purposes of economic globalization as we have known it.

Recognize Resilience in Many Practices

One of the most divergent set of responses came in response to questions on resilience. Many respondents understood resilience to be related to not just local economies and sustainable energy production, but also the overall health of the community, its workers and how well schools were funded. This type of thinking and litmus test for resilience should be developed and encouraged. Particularly where communities have risk factors of failing schools or high incidence of prescription drug abuse, the test for what a resilient community looks like should be constructed of multiple elements that go beyond the typical measures of sustainable economies to address a broad range of social-ecological resilience. This should include the broad

categories of economy, health and social relations and should give attention to the inequality that exists in both study communities.

Address Inequality

One of the most obvious places where both communities had very comparable problems is in the area of poverty and inequality. Both communities have pockets of residents that are living in poverty, in part as a result of the regional and structural changes related to Appalachia and the Rust Belt. Both communities also have residents who have not been brought into the process of thinking about the future of their community and what it entails, although both study organizations have made significant efforts to reach out to these marginalized parts of their cities.

Though as with some of the above recommendations, effectively alleviating the needs of these marginalized populations will depend on policy enacted at the Federal and State levels. But one aspect of self-reliance is finding new and creative ways to solve problems at the sites where those problems are manifested. If indeed there is no cavalry on the way and if the larger national and global economy is compromised to the point where it will not be able to solve these problems, then the local state and the local community will have to find new, innovative ways to solve problems. Strategies for solving problems of poverty and the inability of community members to fulfill their own needs might be continued investment in the local economy to create more jobs, investment in alternative mechanisms where needs are met in ways such as community supported agriculture and other similar work/share programs, and investment in other

aspects of the sharing economy where needs can be met in ways other than income and consuming in the standard marketplace.

Living Sustainably in Place

This may be the most basic and simple recommendation of all and the goal to which this project has explored and it is certainly a theme in David Orr's writings. In many ways it does provide a summary of my respondents' intentions and a measure of what both study communities are attempting to accomplish. One of the respondents explicitly indicated that their goal was to live more authentically, which is what these efforts are about. These communities are attempting to live more authentic lives to make sense of our current situation related to energy, waste, food and local economies. Their desire is not to go back to another era where things were better and more simple, but to bring a level of authenticity and simplicity to the complexity around them.

This could potentially be a strategy that could be used more explicitly, which is to challenge the macro-level integrity problem that is exemplified in the global economy. Along with identifying risks as discussed above, identifying in common language the lack of authenticity and integrity in our economic and political system and guiding community members into alternative ways of being that seek to undermine that lack of integrity. Living with integrity is a language that can appeal to a broad array of people, some of whom may not currently be included in the tight circle of people pursuing community resilience. A challenge to live with integrity could be a challenge that opens the circle to a wider group of people who would perhaps otherwise not be in the

challenge of sustainable living and who could tip the balance necessary to achieve more than we may have thought possible and in a much more satisfying way.

Suggestions for Further Research

Through my excursions into the academic literature in this project and through the interviews with my respondents, there are many puzzles that could be explored in much greater depth than what has been done here, and some of these themes have not been explored at all. I would like to suggest four possible topics for further research and exploration.

First, there is an obvious connection between the work that both of the colleges in this study are involved in and their common religious heritage. The topic of religion and the Christian faith that has informed and undergirded both of these communities was often not far from the responses of my interviewees. Sometimes there was inherent tension in those related conversations, but for some of my respondents, faith was part of what motivated them to do their work and carry out their valued traditions. Though it did not fit within the questions that I was most interested here, this topic of how this historic faith continues to press these communities into progressive action and leadership, ahead of their peers and most other communities, is worthy of further exploration.

Secondly, embedded in both of these studies, and especially the Oberlin Project, there is a sociological question about how these organizations are and will transition from the charismatic roots of their founders to a more routinized approach to organizational life. As David Orr has been replaced by a succession of executive directors

on the Oberlin Project, it is yet to be observed how the founding vision and motivation to implement “full spectrum sustainability” at the community level will be realized in the activities and accomplishments of this organization as it gets lived out in projects and as they pursue grant funding to carry out these original and emerging visions.

Thirdly, there is the very powerful tension between the science of ecological change and behavior change. This tension was introduced early on related to how community members perceive risk and how they attempt to change their communities based on those perceptions. Part of this tension revolves around the issue of how to communicate urgency of ecological and climate realities without demotivating action and shutting down the positive energy that comes through proactive engagement and positive mental outlook.

Finally, there is a fascinating question of how personal and community health relates to the pursuit of sustainability and resilience. One respondent makes a fascinating distinction between responding to unemployment and prescription drug abuse versus the sustainability of the food system. Why employment and substance abuse would be located outside of the boundaries of resilience and the sustainability of the food system is inside of that boundary, is worthy question for further investigation. In my understanding and experience, the sustainability and resilience literatures have not addressed this issue. In fact, there is an important relationship between individual health, community design and community sustainability and resilience that is overdue for exploration. There has been some exploration of these issues in public health, medicine and urban design and suburban sprawl (Frumkin, Frank and Jackson 2004) but

there is some very important work to do in this area that has not been adequately addressed.

Appendix: Interview Instrument

- I. How Does Transition Happen?
 - a. Can you describe the learning opportunities that you have been a part of in this collaboration?
 - b. How have these opportunities brought people together from various places in society – professions, occupations, academic disciplines, subcultures, etc.?
 - c. Has taking part in this collaboration helped you to understand how the social world interacts with the ecological world?
 - d. How do you chart your progress on the goals of the project?
 - e. What kinds of skills are you attempting to provide/learn in the move toward resilience?
 - f. What is the role of ritual in your community? Are there rituals that are used that create solidarity and meaning?
 - g. How do you let go of one valued way of life for another?
 - h. How do you create and shape the change you want to see?

- II. What is resilience?
 - a. Are there particular types of risks or shocks that this project seeks to prepare the community for?
 - b. How do you understand resilience?
 - c. What kinds of relationships do you have with officials or others outside of your community related to this project? Advisors, government officials, etc. Are there barriers to achieving project goals related to politics or personalities?
 - d. Are there particular governance structures that get in the way of resilience?
 - e. Can you describe the leadership of the project? What words come to mind in describing this leadership? Is it democratic?
 - f. How do you hash things out when conflict arises?
 - g. How do you think about the ordering of market, state and community?
 - h. What are some of the important elements of your vision for what a resilient world should look like?
 - i. Do you have a definition of human flourishing?
 - j. Do you see tensions between resilience and efficiency? How do you deal with them?
 - k. Are there people in your community that will be disadvantaged in the transition to resilience?

- III. University/Community Collaboration
 - a. What ideological issues do you have to overcome when trying to get people involved in the project? What are the most difficult ones to overcome?

- b. Are there particular ideas that you attempt to dislodge with this project?
- c. How is the college involved in bringing people together around this project?
- d. How does the college community contribute knowledge to this project?
- e. Are there other types of knowledge that are valued and welcomed in this project?
- f. How do other groups within the community contribute to the transition project?

References

- Alloun, Esther and Samuel Alexander. 2014. "The Transition Movement: Questions of Diversity, Power and Affluence." Simplicity Institute.
- Bansal, P. and K. Roth. 2000. "Why Companies Go Green: A Model of Ecological Responsiveness." *Academy of management Journal*:717-36.
- Barr, PS, JL Stimpert and AS Huff. 1992. "Cognitive Change, Strategic Action, and Organizational Renewal." *Strategic Management Journal*:15-36.
- Barry, John. 2012. *The Politics of Actually Existing Unsustainability: Human Flourishing in a Climate-Changed, Carbon Constrained World*. New York: Oxford University Press.
- Beck, Ulrich. 2000. "Risk Society Revisited: Theory, Politics and Research Programmes." Pp. 211-29 in *The Risk Society and Beyond: Critical Issues for Social Theory*, edited by B. Adam, Ulrich Beck, Joost Van Loon. London: Sage.
- Beck, Ulrich. 2009. *World at Risk*. Cambridge, UK: Polity.
- Berea College. 2014, "Sustainability and Environmental Studies: Ecovillage", Berea, KY: Berea College. Retrieved May 20, 2014 (<http://www.berea.edu/sens/ecovillage/>).
- Berea LIFE. 2014. "Berea Community Food System Assessment." Vol. Berea, KY.
- Berea Utilities. 2014, "Berea Solar Farm". Retrieved October 16, 2014 (http://www.bereautilities.com/?page_id=348).
- Bergen, John. 2013, "Oberlin Project Community Conversations Translate into Next Steps" *Community Voices: The Oberlin Project*. Retrieved March 19, 2014 (<http://www.oberlinproject.org/community-voices/oberlin-project-community-conversations-translate-into-next-steps>).
- Bowers, C.A. 2008. *University Reforms in an Era of Global Warming*: Eco-Justice Press.
- Brandt, Nat. 1990. *The Town That Started the Civil War*: Syracuse University Press.
- Briggs, Connie and Richard Olson. 2005. "Ecovillage Makes Progress toward Energy and Water Use Goals." Pp. 1 in *The Sustainable Campus*, Vol. 1. Berea, KY: Berea College Sustainability and Environmental Studies Program.
- Brundtland, Gro Harlem. 1987. *Report of the World Commission on Environment and Development: Our Common Future*.: United Nations.
- Buckner, Jay. 2014. "Berea College's "Deep Green" Residence Hall Earns World's Highest Leed Score " in *BC Now*. Berea, KY.
- Building Dashboard. 2014, "Adam Joseph Lewis Center", Oberlin, OH: Oberlin College. Retrieved May 19, 2014 (<http://buildingdashboard.net/oberlin/#/oberlin/ajlc>).
- Bullard, Robert Doyle. 2000. *Dumping in Dixie: Race, Class, and Environmental Quality*: Westview Press Boulder, CO.
- Cabat, Melissa. 2014, "Community Voices - Ron Bier" *Community Voices: The Oberlin Project*. Retrieved May 21, 2014 (<http://www.oberlinproject.org/blog/community-voices-ron-bier>).
- Cannan, Crescy. 2000. "The Environmental Crisis, Greens and Community Development." *Community Development Journal* 35(4):365-76.

- Cato, Molly Scott. 2009. *Green Economics: An Introduction to Theory, Policy and Practice*: Earthscan.
- CELT. 2014, "Center for Education and Learning through Service", Berea, KY: Berea College. Retrieved April 11, 2014.
- Charmaz, K. 2000. "Grounded Theory: Objectivist and Constructivist Methods. Norman K. Denzin & Yvonna S. Lincoln (Eds.), *Handbook of Qualitative Research* (Pp. 509-536)." Thousand Oaks, CA: Sage.
- Clausen, Rebecca. 2007. "Healing the Rift: Metabolic Restoration in Cuban Agriculture." *Monthly Review* 59(1):40.
- Cote, Muriel and Andrea J. Nightingale. 2012. "Resilience Thinking Meets Social Theory: Situating Social Change in Socio-Ecological Systems (Ses) Research." *Progress in Human Geography* 36(4):475-89.
- Cotgrove, Stephen. 1982. *Catastrophe or Cornucopia: The Environment, Politics, and the Future*. New York: Wiley.
- Cowen, Tyler. 2011. *The Great Stagnation: How America Ate All the Low-Hanging Fruit of Modern History, Got Sick, and Will (Eventually) Feel Better*. New York, NY: Penguin.
- Creative Change Education Solutions. 2014. Retrieved May 21, 2014 (<http://www.creativechange.net/>).
- Dietz, Thomas, Elinor Ostrom, Paul C. Stern 2003. "The Struggle to Govern the Commons." *Science* 302(5652):1907-12.
- Dinda, S. 2004. "Environmental Kuznets Curve Hypothesis: A Survey." *Ecological Economics* 49(4):431-55.
- Dyball, Robert, Valerie A. Brown and Meg Keen. 2007. "Towards Sustainability: Five Strands of Social Learning." Pp. 181-94 in *Social Learning Towards a Sustainable World: Principles, Perspective and Praxis*, edited by A. E. J. Wals. Wageningen, The Netherlands: Wageningen Academic Publishers.
- Environmental Working Group. 2015, "Farm Commodity Payments by Program". Retrieved May 19, 2015 (<http://farm.ewg.org/region.php?fips=00000>).
- Fineman, S. 2000. "Enforcing the Environment: Regulatory Realities." *Business Strategy and the Environment* 9(1):62-72.
- Fischer, Frank. 1990. *Technocracy and the Politics of Expertise*. Newbury Park, Calif.: Sage Publications.
- Folke, C., T. Hahn, P. Olsson and J. Norberg. 2005. "Adaptive Governance of Social-Ecological Systems." *Annu. Rev. Environ. Resour.* 30:441-73.
- Folke, Carl, Stephen R. Carpenter, Brian Walker, Marten Scheffer, Terry Chapin and Johan Rockström. 2010. "Resilience Thinking: Integrating Resilience, Adaptability and Transformability." *Ecology and society* 15(4).
- Forbes, Linda C. and John M. Jermier. 2010. "The New Corporate Environmentalism and the Ecology of Commerce." *Organization & Environment* 23(4):465-81. doi: 10.1177/1086026610394639.
- Foster, John Bellamy, Brett Clark and Richard York. 2010. *The Ecological Rift : Capitalism's War on the Earth*. New York: Monthly Review Press.

- Freudenburg, W.R. 2005. "Privileged Access, Privileged Accounts: Toward a Socially Structured Theory of Resources and Discourses." *Social Forces* 84(1):89-114.
- Frumkin, Howard, Lawrence Frank and Richard J Jackson. 2004. *Urban Sprawl and Public Health: Designing, Planning, and Building for Healthy Communities*: Island Press.
- Gibson-Graham, Julie Katherine. 2006. *"The" End of Capitalism (as We Knew It): A Feminist Critique of Political Economy; with a New Introduction*. Minneapolis: U of Minnesota Press.
- Gordon, Robert J. 2012. "Is Us Economic Growth Over? Faltering Innovation Confronts the Six Headwinds." Vol.: National Bureau of Economic Research.
- Gould, K.A., D.N. Pellow and A. Schnaiberg. 2004. "Interrogating the Treadmill of Production: Everything You Wanted to Know About the Treadmill but Were Afraid to Ask." *Organization & Environment* 17(3):296.
- Green, Ken, Barbara Morton and Steve New. 2000. "Greening Organizations Purchasing, Consumption, and Innovation." *Organization & Environment* 13(2):206-25.
- Grice, S. and M. Humphries. 1997. "Critical Management Studies in Postmodernity: Oxymorons in Outer Space?". *Journal of Organizational Change Management* 10(5):412-25.
- Hawken, Paul. 1993. *The Ecology of Commerce : A Declaration of Sustainability*. New York: Harper Business.
- Hawken, Paul, Amory B. Lovins and L. Hunter Lovins. 2000. *Natural Capitalism : Creating the Next Industrial Revolution*. Boston: Little, Brown and Co.
- Healey, Patsy. 1993. "Planning through Debate: The Communicative Turn in Planning Theory." Pp. 232-53 in *The Argumentative Turn in Policy Analysis*, edited by F. Fischer and J. Forester. Durham, N.C.: Duke University Press.
- Hefley, Bill and Shaun Seydor. 2011. "The Economic Impact of the Value Chain of a Marcellus Shale Well." Vol. Pittsburgh, PA.
- Heinberg, Richard. 2011. *The End of Growth : Adapting to Our New Economic Reality*. Gabriola, B.C.: New Society Publishers.
- Hendriks, Carolyn. 2009. "Policy Design without Democracy? Making Democratic Sense of Transition Management." *Policy Sciences* 42(4):341-68.
- Hirschman, E.C. and M.B. Holbrook. 1992. *Postmodern Consumer Research: The Study of Consumption as Text*: Sage Publications Newbury Park, CA.
- Homer Dixon, Thomas. 2008. *The Upside of Down: Catastrophe, Creativity, and the Renewal of Civilization*. Washington, D.C.: Island Press.
- Hopkins, Rob. 2008. *The Transition Handbook: From Oil Dependency to Local Resilience*. White River Junction, VT: Chelsea Green Publishing.
- Hughes, J David. 2014. "Drilling Deeper: A Reality Check on Us Government Forecasts for a Lasting Tight Oil and Shale Gas Boom." *Post Carbon Institute, California*.
- Humphries, M. and S. Grant. 2005. "Social Enterprise and Re-Civilization of Human Endeavors: Re-Socializing the Market Metaphor or Encroaching Colonization of the Lifeworld?". *Current issues in comparative education* 8(1):41.
- Illich, Ivan. 1974. *Tools for Conviviality*. London: Marion Boyars.
- Inman, Mason. 2014. "Natural Gas: The Fracking Fallacy." *Nature* 516(December):28-30.

- IPCC. 2012. "Summary for Policymakers. In: Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation: A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change." Cambridge, UK and New York, NY, USA.
- Ison, RL. 2005. "Traditions of Understanding: Language, Dialogue and Experience." *Social Learning in Environmental Management. Towards a Sustainable Future*:22-40.
- Jackson, Henry. 2012. "Berea Energy Cost Savings Plan: A Comprehensive Community Energy Plan." Berea, Kentucky.
- Jackson, Tim. 2011. *Prosperity without Growth: Economics for a Finite Planet*. London: Routledge.
- Jennings, P. Devereaux and Paul A. Zandbergen. 1995. "Ecologically Sustainable Organizations: An Institutional Approach." *The Academy of Management Review* 20(4):1015-52.
- Jermier, J.M., L.C. Forbes, S. Benn and R.J. Orsato. 2006. "The New Corporate Environmentalism and Green Politics." *The Sage handbook of organization studies*:618-50.
- Jevons, William Stanley and Alfred William Flux. 1906. *The Coal Question; an Inquiry Concerning the Progress of the Nation, and the Probable Exhaustion of Our Coal-Mines*. London: Macmillan Co.
- Kemmis, Daniel. 1990. *Community and the Politics of Place*. Norman: University of Oklahoma Press.
- Kentucky Environmental Foundation. 2014, "Chemical Weapons Working Group", Berea, KY. Retrieved May 16, 2014 (<http://www.kyenvironmentalfoundation.org/chemical-weapons.html>).
- Korten, D.C. 2007. *The Great Turning: From Empire to Earth Community*: Berrett-Koehler Publishers.
- Laclau, Ernesto. 1990. *New Reflections on the Revolution of Our Time*. London: Verso.
- Lederer, Jeffrey. 2007. "University, Downtown, and the Mid-Size City: An Examination of the Roles of University in Downtown Revitalization within the Context of Community-University Partnerships." PhD Doctoral, School of Planning, University of Waterloo, Waterloo, Canada.
- Logan, John R and Harvey L Molotch. 1987. *Urban Fortunes*. Berkeley: University of California Press.
- Luke, Timothy W. 1999. *Capitalism, Democracy, and Ecology : Departing from Marx*. Urbana: University of Illinois Press.
- Mackinnon, Danny and Kate Driscoll Derickson. 2013. "From Resilience to Resourcefulness a Critique of Resilience Policy and Activism." *Progress in Human Geography* 37(2):253-70.
- McGregor, Clyde S. 2013. "Board of Trustees Update October 2013." Oberlin, OH: Oberlin College.
- McKibben, Bill. 2010. *Eaarth : Making a Life on a Tough New Planet*. New York: Times Books.
- Meadows, D.H., J. Randers and D. Meadows. 2004. *Limits to Growth: The 30 Year Update*. White River Junction, VT: Chelsea Green.

- Millenium Ecosystem Assessment Report. 2005. "Ecosystems and Human Well Being: Synthesis." Vol. *A Report of the Millennium Ecosystem Assessment*.
- Mol, Arthur P.J. 1997. "Ecological Modernization: Industrial Transformations and Environmental Reform." in *The International Book of Environmental Sociology*, edited by M. Redclift and G. Woodgate. Cheltenham, UK: Edward Elgar.
- Mol, Arthur PJ and Gert Spaargaren. 2000. "Ecological Modernisation Theory in Debate: A Review." *Environmental politics* 9(1):17-49.
- Molotch, Harvey. 1976. "The City as a Growth Machine: Toward a Political Economy of Place." *American Journal of Sociology*:309-32.
- National Renewable Energy Laboratory. 2010. *Property Assessed Clean Energy Financing (Pace) of Renewables and Efficiency* Congress.
- O'Connor, James. 1994. "Is Sustainable Capitalism Possible?" in *Is Capitalism Sustainable*, edited by J. O'Connor. New York, NY: The Guilford Press.
- Oberlin Climate Action Committee. 2013. "Oberlin Climate Action Plan." Oberlin, OH: City of Oberlin/Oberlin College.
- Oberlin College. 2014a, "Green Edge Fund", Oberlin, OH: Oberlin College. Retrieved April 28, 2014 (<http://ocsites.oberlin.edu/edgefund/>).
- Oberlin College, Office of Sustainability. 2014b, "Energy", Oberlin, OH: Oberlin College. Retrieved April 28, 2014 (<http://new.oberlin.edu/office/environmental-sustainability/progress/energy.dot>).
- Oberlin Environmental Dashboard. 2014, "City-Wide Dashboard", Oberlin, OH. Retrieved March 29, 2014 (<http://www.oberlindashboard.org/brd.php>).
- Ogbor, J.O. 2001. "Critical Theory and the Hegemony of Corporate Culture." *Journal of Organizational Change Management* 14(6):590-608.
- Ollstein, Alice and Kate Riley. 2007. "City Council Votes "Yes" on Coal Plant." in *The Oberlin Review*. Oberlin, OH: Oberlin College.
- Olson, Richard. 2007. "Plan C for Bc." in *The Sustainable Campus*, Vol. 3. Berea, KY: Berea College Sustainability and Environmental Studies Program.
- Olson, Richard. 2011. "Community Sustainability Laboratory (Cs-Lab)." Berea: Berea College.
- Orr, David W. 1992. *Ecological Literacy : Education and the Transition to a Postmodern World*. Albany: State University of New York Press.
- Orr, David W. 1994. *Earth in Mind : On Education, Environment, and the Human Prospect*. Washington, DC: Island Press.
- Orr, David W. 2011. "What Do We Stand for Now?" *Oberlin Alumni Magazine*.
- Ostrom, Elinor. 1996. "Crossing the Great Divide: Coproduction, Synergy, and Development." *World Development* 24(6):1073-87.
- Ostrom, Elinor. 1999. "Coping with Tragedies of the Commons." *Annual Review of Political Science* 2(1):493-535.
- Peck, Elisabeth Sinclair and Emily Ann Smith. 1982. *Berea's First 125 Years, 1855-1980*: University Press of Kentucky.
- Polanyi, Karl. 1947. "The Great Transformation." *New York: Rinehart*.
- Porter, M.E. and C. Van der Linde. 1996. "Green and Competitive: Ending the Stalemate." *Business and the Environment: A Reader*:61.

- Porter, M.E. and M.R. Kramer. 2006. "The Link between Competitive Advantage and Corporate Social Responsibility." *Harvard Business Review* 84(12):78-92.
- Public Services Institute and Loraine County Community College. 2011. "Oberlin 2025 Strategic Plan."
- Rose, Hilary. 2000. "Risk, Trust and Scepticism in the Age of the New Genetics." Pp. 63-77 in *The Risk Society and Beyond: Critical Issues for Social Theory*, edited by B. Adam, Ulrich Beck, Joost Van Loon. London: Sage.
- Schnaiberg, Allan. 1980. *The Environment, from Surplus to Scarcity*. New York: Oxford University Press.
- Schor, Juliet B. 2011. *True Wealth: How and Why Millions of Americans Are Creating a Time-Rich, Ecologically Light, Small-Scale, High-Satisfaction Economy*. New York, NY: Penguin.
- Schweickart, David. 2011. *After Capitalism*. Lanham, MD: Rowman & Littlefield Publishers.
- Short, J.L. and M.W. Toffel. 2010. "Making Self-Regulation More Than Merely Symbolic: The Critical Role of the Legal Environment." *Administrative Science Quarterly* 55(3):361.
- Shrivastava, Paul. 1995. "The Role of Corporations in Achieving Ecological Sustainability." *The Academy of Management Review* 20(4):936-60.
- Shuman, Michael. 2012. "Growing Berea's Economy from the inside Out." Vol.
- Smith, N. and C. Katz. 1993. "Towards a Spatialized Politics." Pp. 67-83 in *Place and the Politics of Identity*, edited by M. Keith and S. Pile. London: Routledge.
- Starik, Mark and Gordon Rands. 1995. "Weaving an Integrated Web: Multilevel and Multisystem Perspe." *Academy of Management. The Academy of Management Review* 20(4):908.
- Sustainable Berea. 2014. Retrieved October 18, 2014 (<http://sustainablebera.org/about/>).
- Tainter, Joseph. 1990. *The Collapse of Complex Societies*. Cambridge: Cambridge University Press.
- The Global Commission on the Economy and Climate. 2014. "Better Growth, Better Climate." Washington, DC: New Climate Economy.
- The Oberlin Project. 2012. Retrieved November 5, 2012, (<http://www.oberlinproject.org/>).
- The Oberlin Project. 2014a, "Frequently Asked Questions". Retrieved October 31, 2014, 2014 (<http://www.oberlinproject.org/about/faq/frequently-asked-questions-1#how-is-the-oberlin-project-funded>).
- The Oberlin Project. 2014b, "Home Page": The Oberlin Project. Retrieved May 26, 2014 (<http://www.oberlinproject.org/>).
- Tidball, Keith and Marianne E. Kransny. 2007. "From Risk to Resilience: What Role for Community Greening and Civic Ecology in Cities?" Pp. 149-64 in *Social Learning Towards a Sustainable World: Principles, Perspectives, and Praxis*, edited by A. E. J. Walls. Wageningen Wageningen Academic Pub.
- Transition Network. 2015. Retrieved July 21, 2015.

- U.S. Army Chemical Materials Activity. 2014, "Bluegrass". Retrieved May 16, 2014 (<http://www.cma.army.mil/bluegrass.aspx>).
- United States Census Bureau. 2010. "Census 2010."
- Urbanik, Valerie. 2014. "Fracking on Oberlin's Watch?" in *Limaohio.com*. Lima, OH: Civitas Media.
- Walker, B.H. and D.A. Salt. 2006. *Resilience Thinking: Sustaining Ecosystems and People in a Changing World*: Island Press.
- Walker, Brian, C. S. Holling, Stephen R. Carpenter and Ann P. Kinzig. 2004. "Resilience, Adaptability and Transformability in Social–Ecological Systems." *Ecology and society* 9(2).
- Walshok, Mary L. 1999. "Strategies for Building the Infrastructure That Supports the Engaged Campus." in *Colleges and Universities as Citizens*, edited by R. G. Bringle, R. Games and E. A. Malloy. Boston, MA: Allyn and Bacon.
- Woollacott, Martin. 1998. "The Politics of Prevention." Pp. 120-23 in *The Politics of Risk Society*, edited by J. Franklin. Cambridge, MA: Polity Press.
- World Wildlife Federation. 2014. "Living Planet Report 2014: Species and Spaces, People and Places. ." Gland, Switzerland.
- Yanarella, Ernest J and Richard S Levine. 2014. "From Sustainability to Resilience: Advance or Retreat?". *Sustainability: The Journal of Record* 7(4):197-208.
- Yanarella, Ernest J. and Richard S. Levine. 2011. *The City as Fulcrum of Global Sustainability*. London; New York: Anthem Press.
- York, Richard and Eugene A. Rosa. 2003. "Key Challenges to Ecological Modernization Theory: Institutional Efficacy, Case Study Evidence, Units of Analysis, and the Pace of Eco-Efficiency." *Organization & Environment* 16(3):273-88.
- York, Richard, Eugene A. Rosa and Thomas Dietz. 2003. "Footprints on the Earth: The Environmental Consequences of Modernity." *American Sociological Review* 68(2):279-300.
- York, Richard and Brett Clark. 2010. "Critical Materialism: Science, Technology, and Environmental Sustainability." *Sociological inquiry* 80(3):475-99.
- York, Richard. 2012. "Do Alternative Energy Sources Displace Fossil Fuels?". *Nature Climate Change* 2(6):441-43.
- Zehner, Ozzie. 2012. *Green Illusions: The Dirty Secrets of Clean Energy and the Future of Environmentalism*. Lincoln, NE: University of Nebraska Press.
- Zion Community Development Corporation. 2014, "Home Page", Oberlin, OH. Retrieved June 26, 2014 (<http://zioncdc.org/>).

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PROFESSIONAL EXPERIENCE

UK Core Social Science Evaluator, spring 2014 and 2015

Microteach Mentor, University of Kentucky, summer 2013

Community Liaison, Kentucky Center for Smoke-free Policy, University of Kentucky, 2010 - 2011

Business Manager, Association for the Advancement of Sustainability in Higher Education (AASHE), Lexington, KY, 2007 - 2009

Bookkeeper, The Living Arts & Science Center, Lexington, KY, 2005 – 2006

Director/Chief Operating Officer, Nathaniel Mission, 2003 – 2005

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AWARDS

University of Kentucky, College of Arts and Sciences, Outstanding Teaching Assistant Award, April 2012

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PUBLICATIONS

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