

Peak Politics: Resource Scarcity and Libertarian Political Culture in the United States

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Abstract

My dissertation uses the “peak oil” movement as a lens to analyze the convergence of apocalyptic environmental thinking and libertarian political culture in the recent United States. The “peak oil” movement was a twenty-first century American social movement of Americans who came to believe that oil depletion and other environmental problems would lead to the imminent collapse of global industrial society. Dedicated adherents developed a rich subculture, primarily online, and prepared themselves for the “post-carbon” future by conserving energy, changing occupations, and even purchasing land. Drawing on surveys of over 1,500 participants, ethnographic research, discourse analysis of peak oil websites and literary analysis of subcultural fiction, my research reveals a group of mostly white, male, liberal Americans struggling with the perceived threat of economic, environmental and geopolitical decline while the country undergoes a broad shift in political culture: the continued rise of libertarian ideals, accelerated by the influence of Internet technology. I view this apocalyptic subculture in the context of the environmental discourse of “limits to growth,” petroleum dependence, eco-apocalyptic discourses, and the influence of conservative individualism on American political culture.

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Introduction: Peak Politics

To most scholars who are even familiar with the term, “peak oil” is shorthand for energy depletion, but for a subculture of Americans in the early twenty-first century “peak oil” became an ideology. Between 2004 and 2010, hundreds of thousands of Americans came to believe that an impending oil scarcity would lead to the imminent collapse of industrial society and the demise of the United States of America.¹ The “peak oil” movement was a twenty-first century movement of Americans for whom the dire, apocalyptic consequences of oil scarcity were a fundamental belief that organized the way they thought about their lives, an “ecological identity” that often superseded other categories of identity.² For many, “peakism” transformed the way they lived as well: so-called “peakists” changed occupations, purchased land, retrofitted their homes, drove less, biked more, stockpiled supplies, and even left their partners as a result of their newfound belief system.

One popular explanation of the peak oil theory was provided by writer/filmmaker “Oily Cassandra” in her 2007 YouTube video “Porn. Peak Oil. Enjoy.” A split screen was intended to attract and then educate male viewers, who made up over three quarters of all peakists: on the right side, a sexualized Cassandra, wearing a short pink skirt and a revealing top, performs a mock-striptease to house music; on the left side, she soberly explains the concept of peak oil:

¹ This conservative figure emerges from analysis of web site membership two surveys developed for this dissertation. See page 20 for more details.

² Although we typically think of identity as being determined by more traditional categories, such as race, class, gender and sexual orientation, historians of conservatism and environmentalism can attest to the importance of self-chosen factors, such as dedicated conservative activists or deep ecologists. See Mitchell Thomashow, *Ecological Identity: Becoming a Reflective Environmentalist* (Cambridge: MIT Press, 1996); and Andrew Light, “What Is An Ecological Identity?” *Environmental Politics* 9, no. 4: 59-81.

Peak oil: it's bigger than terrorism, global warming or genocide. It's the end of your way of life. It's not right wing or left wing doomsday theory, it's the truth, and it's right around the corner... What's the big deal? You'll just drive less, right? The problem is, oil isn't just about driving. Oil affects almost every aspect of our lives. Think about it. 90% of our transportation fuel is oil. And since most of our clothing, furniture and resources come from overseas, that means oil-fueled ships may not be bringing them. And what about food? Our abundant supply of food comes from an average of 1500 miles away, which means, if you don't live by a farm, no food for you. There won't be much food anyway, since oil is used to make fertilizers and pesticides fired by gas-fueled tractors. If the current farming system stopped using petroleum, soon up to two-thirds of the world's population may not make it. Four billion—billion!—people may not survive.³

Even if an Manhattan Project-scale endeavor of renewable energy development were to be implemented immediately, peakists say, it would not be sufficient, since “as Asia's booming population begins to demand the same lifestyles as Americans enjoy and as global war starts to stabilize the oil distribution system, the demand” for petroleum will soar. While most Americans have an implicit faith in the development of new technologies to provide energy for future generations, peakists are pessimistic about the potential of other fossil fuels and nonrenewable energy sources to replace petroleum. “It's too late for cheery myths about how technology, wind hybrids, biofuels,

³ “Porn. Peak Oil. Enjoy,” http://www.youtube.com/watch?v=vAPf9V3_li0. Accessed July 15, 2012. As of this writing, it had been viewed by over 300,000 people.

hydroelectric dams, solar energy or hydrogen will save us and let our society continue as is.”



Figure x.1: “Oily Cassandra” explains the theory of peak oil in a YouTube video with over 300,000 views.

Cassandra’s video is a window into this subculture’s socio-economic makeup and virtual orientation. According to my surveys of peakists, they are primarily white (approximately 89-91%), male (73-84%) and educated—nine out of ten have at least a college degree, and one out of three has a Master’s or Ph.D.⁴ The peak oil movement has been called the “liberal *Left Behind*”⁵ for good reason—most American believers described themselves as “liberal” (29%) or “very liberal” (27%), while only 7% described themselves as “conservative.” Given a wider range of political identities to choose from, more peakists described themselves as “anarchist” (7-9%) and “socialist”

⁴ The values here reflect the differences between two surveys conducted by the author in 2011. See notes 66 and 67 for discussion of survey methods.

⁵ Bryan Urstadt, “Imagine there’s no oil: scenes from a liberal apocalypse,” *Harper’s Magazine*, August 2006.

(10-11%) than “conservative” (4-6%). Not surprisingly, Cassandra’s video was most popular with men, but they are chiefly middle-aged men—in my surveys, the average peakist was 47. Although believers can be found around the world—the Association for the Study of Peak Oil has chapters in 23 countries—the phenomenon is focused in the United States (70-77% of respondents), where believers have proven exceptionally passionate and dedicated.

The medium of Cassandra’s evangelism is also reflective of the peak oil phenomenon—like her dramatic persona, the peak oil community existed almost entirely on the Internet. Adherents created a rich virtual community composed of websites, blogs, Podcasts, YouTube channels, poems, cartoons, video games, online forums, and even peak oil psychotherapy. Although their primary focus was petroleum, the scope of adherents’ concern is more accurately captured by the phrase “peak everything.”⁶ Just as petroleum will become scarce, costly and eventually unavailable, other natural resources will follow: peak water (freshwater availability); peak dirt (topsoil erosion); peak fish (overfishing); peak uranium; peak metal (precious metal scarcity); peak natural gas, and so on. “Peak oil” is not so much an obsession with oil, but a comprehensive re-evaluation of the relationship between humans and the natural resources we depend on. The potentially far-reaching implications of resource depletion have been the subject of dozens of scores of scholarly articles in a wide array of fields and disciplines, but the subculture and politics of the peak oil movement has been overlooked, partially because of its virtual orientation—believers generally meet on the Internet, prepare for the post-oil future alone, and do not seek publicity.

⁶ Richard Heinberg, *Peak Everything: Waking Up to a Century of Decline* (New Society Publishers, 2007).

Peakists stressed the need for collective solutions to oil depletion, reflecting the communitarian ideals of the American left, but most actually prepared for the post-carbon future alone. After becoming “peak oil aware,” three out of four began stockpiling food, one out of three purchased a more energy-efficient car, one out of four moved to a smaller or more energy-efficient home, and one out of five changed their occupation. Although communal responses to the threat of peak oil have received a great deal of attention in the late 2000s, only one out of four respondents had participated in such political or collective action, and many of these respondents had attended only one meeting.⁷ In this way, this group was very different from traditional “social movements” that we are familiar with, membership organizations with hierarchies and explicit political goals. The peak oil movement is typical of a twenty-first century “movement” organized through the Internet, but might also be called a “phenomenon,” “community,” or, borrowing Manuel de Landa’s term, a “social assemblage”—a fluid, temporally contingent grouping, reliant on networks (and thus decentralized), centered around knowledge and information across spatial boundaries.⁸ As such, it was similar to other

⁷ In response to the question, “As a result of your knowledge of peak oil, have you done any of the following,” 72% had “prepared food or other supplies for yourself and your family,” 82% had “reduced energy usage at your current home,” 24.3 had “moved to a smaller or more energy-efficient home,” 27.3 had “engaged in political activity related to peak oil,” and only 3% had “moved to a Transition Town.” The Transition Initiative, begun in the United Kingdom in 2007, has received the most attention. Transition is a franchise model of intentional communities based on Rob Hopkins’ book *The Transition Handbook: From Oil Dependency to Local Resilience* (White River Junction, VT: Chelsea Green Publishing, 2008). For scholarship (mostly British) on Transition Towns, see Amanda Smith, “The Transition Town Network: A Review of Current Evolutions and Renaissance,” *Social Movement Studies* 10, no. 1 (2011): 99–105; Ian Bailey, Rob Hopkins, Geoff Wilson, “Some things old, some things new: The spatial representations and politics of change of the peak oil relocalisation movement,” *Geoforum* 41, no. 4 (2010): 595–605; Peter North, “Eco-localisation as a progressive response to peak oil and climate change: A sympathetic critique,” *Geoforum* 41, no. 4 (2010): 585–594.

⁸ Manuel de Landa, *A New Philosophy of Society: Assemblage Theory and Social Complexity* (New York, Continuum, 2006). See also Graeme Chesters and Ian Walsh, *Complexity and Social Movements: Multitudes at the Edge of Chaos* (New York: Routledge, 2006) and Nick Srnicek, *Assemblage Theory*,

loose, decentralized groups, such as the Occupy movement. But unlike Occupy, the peak oil movement was a movement without politics—a movement, in some ways, that was specifically anti-political.

Even though peakists followed news and current events more closely after becoming “peak oil aware,” most avoided political engagement even after their “conversion.” They actually became *less* likely to vote or attend marches, rallies, or protests.⁹ Cassandra, for example, asserted that “truth has a left-wing bias” and protested the U.S. invasion of Iraq in 2003, but claimed in 2007 that there was no place for her concerns in mainstream American politics.¹⁰ Instead of trying to engage in environmental politics around energy depletion and climate change, she tells her viewers, “all you can do is slow down collapse to try and give all of us enough time to figure out how to best release ourselves from the age of oil to a simpler, more intimate way of life.”¹¹

Peakists’ political resignation and individualism is particularly surprising because this is the exact population that we might otherwise expect to become dedicated environmental activists—liberal or leftist, educated, politically aware, deeply concerned about ecological issues, and cognizant of the need for large-scale change. Instead of lobbying the federal government, they assumed that “our government is unresponsive, in

Complexity and Contentious Politics: The Political Ontology of Gilles Deleuze (unpublished master's thesis, University of Western Ontario, 2007).

⁹ In response to my survey question, “Have you been more or less engaged in the following activities since learning about peak oil? Please put on a scale from 1 to 5, with 1 for much less engaged, 3 for no change, and 5 for much more engaged,” American peakists averaged 2.79 for the option “attending rallies, marches or protests.”

¹⁰ “Oily Cassandra,” personal communication. February 1, 2010.

¹¹ “Porn. Peak Oil. Enjoy,” http://www.youtube.com/watch?v=vAPf9V3_li0. As of this writing, it had been viewed by over 300,000 people. Accessed July 15, 2012.

denial, and ineffectual,” as one California man in his late thirties put it, and took individuals steps to prepare themselves and their families.¹² Their struggle to form a collective response to ecological crisis reflects the decline of trust in social institutions and the rise of a certain type of individualism in the last half-century.

Explorations of individualism in the U.S. have a long history that goes back to Alexis de Tocqueville, if not before, but such accusations have intensified over the last three decades. One could point, for example, to two of the most influential scholarly works of the last two decades, Robert Bellah et al’s *Habits of the Heart: Individualism and Commitment in American Life* (1985) and Robert Putnam’s *Bowling Alone: The Collapse and Revival of American Community* (2000).¹³ Relying on hundreds of interviews, Bellah and his co-authors argued that American culture had succumbed to a therapeutically self-centered narcissism that had stripped public life of its vibrancy and political possibilities. “Utilitarian” and “expressive” individualism had infected contemporary conceptions of the self, the family, civic involvement, religion, the nation, and even “freedom,” which by the 1980s meant “being left alone by others, not having other people’s values, ideas, or styles of life forced upon one, being free of arbitrary authority in work, family, and political life.”¹⁴

Writing a decade and a half later, Robert Putnam marshaled an impressive array of evidence from membership rolls of organizations and studies of social participation to identify a long-term decline of “social capital” (a measure of “social connectedness”) in

¹² Respondent 9567344. Survey respondents are identified by their randomly generated response numbers.

¹³ Robert N. Bellah, Richard Madsen, William M. Sullivan, Ann Swidler and Steven M. Tipton, *Habits of the Heart: Individualism and Commitment in American Life* (Berkeley: University of California Press, 1985).

¹⁴ Bellah, 23.

the United States from the 1950s to 2000.¹⁵ Although his methodology was widely critiqued, Putnam’s basic thesis has generally been accepted and echoed by other sociologists.¹⁶ However, many have disagreed with his causal explanations for the decline in social capital, which focus on suburban sprawl, television, and the passing of the “greatest generation” of Americans. This dissertation is in dialogue with both of these authors, but my study of the peak oil movement suggests that there is a largely ignored political dimension to the changes Bellah and Putnam observed. In chapter 3, I argue that the rise of libertarian ideals in the United States—beginning with the 1960s countercultural concept of idea of “doing your own thing” as a political act, continuing with the fiscal libertarianism of conservatives like Ronald Reagan and the Tea Party, and embedded in Internet technology—played a key role in this trend.

In this way, I present this subculture as a microcosm of a broader trend that scholars have been actively debating for two decades. Although peakists have certainly adopted an unusual, counterhegemonic system of beliefs, the peak oil movement does not seem quite as “fringe” in most other respects. Participants were, for the most part, in the demographic mainstream of the United States in the mid-2000s—primarily white, middle-aged, and middle-class. Few had suffered mental illness or severe depression, and few believed in conspiracy theories or other uncommon beliefs. Until their

¹⁵ Putnam, 23.

¹⁶ For critiques, see Pamela Paxton, “Is Social Capital Declining in the United States? A Multiple Indicator Assessment,” *American Journal of Sociology* 105, no. 1 (1999): 188-127; and Everett Ladd, *The Ladd Report* (New York: Free Press, 1999). On the acceptance of the decline of social capital, see the symposium on *Bowling Alone* in *Contemporary Sociology* 30, no. 3 (2000): 223-30; Stefano Bartolini, Ennio Bilancini, Maurizio Pugno, “Did the Decline in Social Capital Decrease American Happiness? A Relational Explanation of the Happiness Paradox,” *Social Indicators Research* 110, no. 3 (2013): 1033-1059. Sociologist Wayne Baker, analyzing data from the World Values Survey, noticed a similar trend. See *America’s Crisis of Values: Reality and Perception* (Princeton: Princeton University Press, 2005), 56-60.

ideological transformation, there was very little to distinguish them from their peers. By aligning my survey questions with national polls regularly taken over the last thirty years, I am able to establish the peak oil movement as representative of broader currents in American political culture. Peakists consider themselves liberal but exhibit a distinctively conservative response to a perceived threat, and this apparent contradiction has broad implications in the study of American politics.

Conservatism Beyond Conservatives

Most American historians who have begun to address the events of the last three decades agree that we live in, or in the shadow of, the “Age of Reagan.”¹⁷ Whether one considers the fortieth president to be the nation’s greatest chief executive, as a plurality of Americans claimed in a 2011 poll, or merely the charismatic figurehead for the conservative movement, Reagan’s ideas, rhetoric, and policies have defined the political culture of the United States for the last thirty years.¹⁸ Even as a Democrat occupies the White House, the vital center of American politics have moved so far to the right that, as one journalist noted in 2012, “virtually every major policy currently associated with the Obama Administration,” including the Affordable Care Act (“Obamacare”), had previously been “a Republican idea in good standing.”¹⁹ Or as historian Kim Phillips-

¹⁷ See, for example, Sean Wilentz, *The Age of Reagan: A History, 1974-2008* (New York, Harper, 2008); Steven F. Hayward, *The Age of Reagan: The Conservative Counterrevolution, 1980-1989* (New York: Random House, 2009); Jerome L. Himmelsstein, *To the Right: The Transformation of American Conservatism* (Berkeley: University of California Press, 1989), 13.

¹⁸ Frank Newport, “Americans Say Reagan is the Greatest U.S. President,” Gallup, February 18, 2011.

19% of respondents named Reagan as the “greatest” President; Abraham Lincoln came in second, at 14%.

¹⁹ Ezra Klein, “Unpopular Mandate: Why Do Politicians Reverse Their Positions?” *New Yorker*, June 25, 2012.

Fein recently commented, conservative principles “seem to have transcended the movement itself and to have become the new common wisdom, so much so that we appear still to be living in the age that began with Reagan’s election.”²⁰

Since conservatives came to possess something approaching intellectual hegemony by the mid-2000s, we might begin to turn our attention from the various *causes* of the rise of conservatism to its *effects*. As Phillips-Fein asked, “are we thinking only of the narrative of the [conservative] movement itself—its rise, its obstacles, its victories? Or are we thinking of the broader changes in American politics—a growing uncertainty about the potential of government, a greater faith in the free market, and a deepening sense of anxiety about collective action?”²¹ For thirty years, conservative ideas have dominated American political discourse, and—when paired with power—ideas do have consequences. As Sean Wilentz observed, “the impact of the age of Reagan is indicated” most strongly not in the passion and effectiveness of movement activists but “by the guiding assumptions and possibilities of American politics and government, and the hold they have on public opinion.”²² In this dissertation, I argue that the individualism of peakists is one measure of this impact.

Conservative principles of individual choice, reliance on the free market, and the need for a smaller state—libertarian ideas—though unevenly enacted by actual conservatives in positions of power, are now central subjects of debate in mainstream political discourse. Furthermore, while American social conservatism has not proved

²⁰ Kim Phillips-Fein, “Conservatism: A State of the Field,” *The Journal of American History* 98, no. 3 (2011), 742.

²¹ Phillips-Fein, 742.

²² Wilentz, 8.

particularly influential overseas, libertarian ideas honed in the United States, whether characterized as market fundamentalism or neoliberalism, have been exported throughout the world.²³ In this dissertation, I address the impact of conservative governance and intellectual influence beyond movement conservatives, on Americans who do not consider themselves conservatives. I ask questions that are central to understanding the contemporary politics and the impact of conservatism in the United States: What is the social influence of the conception of society as merely a collection of individuals? How have repeated criticisms of “big government” and the pervasive distrust of government affected the way individuals conceive of government’s ability to address major social problems? Have conservative ideas, as many critics allege, led to a sense of de-politicization?

Peak Perspectives

The phrase “peak oil” refers specifically to the peak of global oil production, the point at which half of the world’s petroleum has been pumped and consumed. Peakists allege not that we are “running out of oil” but that we will soon witness a scarcity of *cheap* oil. Evaluating this argument requires an elementary understanding of the process of oil extraction. In any oil field, the “energy returned on energy invested” (EROI), the margin of energy acquired from a particular energy source, decreases over time. Initially, natural reservoir pressure pushes oil out of newly discovered fields (creating “gushers”

²³ See Steven Teles and Daniel A. Kenney, “Spreading the Word: The Diffusion of American Conservatism in Europe and Beyond,” in Jeffrey Kopstein and Sven Steinmo, eds., *Growing Apart? America and Europe in the Twenty-First Century* (New York: Cambridge University Press, 2008): 136-169.

pictured in films like *Giant* and *There Will Be Blood*), but over time increasingly expensive technology and risky methods must be used to access and recover the remaining oil, such as water injection, carbon dioxide flooding, or microbial treatments.²⁴

The average EROI on conventional petroleum extracted in the United States in the 1930s was 100:1. By the 1970s, it was down to 30:1, and the figure is between 18:1 and 11:1 in the 2000s.²⁵ (When EROI has reached 1:1, it is no longer profitable to extract.) The United States reached its own peak of production in 1970, and (as of 2009) at least 50 of the 54 oil-producing nations had reached their respective peaks.²⁶ While new oil fields are still being discovered, the rate of discovery has significantly decreased over time, and newly discovered fields tend to be much smaller than the giants discovered in the 1960s and 1970s.²⁷ However, new technologies, made feasible by rising oil prices, allow producers to recover more oil from older fields, forcing analysts to revise their predictions of when the global peak will occur.

²⁴ *Giant*, George Stevens, 1956; *There Will Be Blood*, Paul Thomas Anderson, 2007.

²⁵ For EROI data, see C.J. Cleveland, R. Costanza, C.A.S. Hall and R. Kaufmann, "Energy and the U.S. economy: a biophysical perspective," *Science* 225 (1984): 890–897; C.J. Cleveland, "Net energy from oil and gas extraction in the United States, 1954–1997," *Energy* 30, no. 5 (2005): 769–782; C.A.S. Hall, C.J. Cleveland and R. Kaufmann, *Energy and Resource Quality: The Ecology of the Economic Process* (New York: Wiley, 1986). For an overview of current EROI data for petroleum and other energy sources, see Ajay K. Gupta and Charles A.S. Hall, "A Review of the Past and Current State of EROI Data," *Sustainability* 3, no. 10 (2011): 1796–1809. For a discussion of the importance of EROI, see Charles A.S. Hall, "Editorial Introduction to Special Issue on New Studies in EROI (Energy Return on Investment)," *Sustainability* 3, no. 10 (2011): 1773–1777.

²⁶ See Praveen Ghanta, "Is Peak Oil Real? A List of Countries Past Peak," <http://www.theoil Drum.com/node/5576>. Accessed July 15, 2012. Although there is a great deal of debate about whether a few major countries, such as Saudi Arabia, are at their peak, there is little debate about others, such as the United States, Iraq, and Mexico.

²⁷ For example, while 120 "giant" oil fields (100,000 barrels per day for more than one year) were discovered in the 1960s, less than 60 were discovered in the 1980s, less than 40 in the 1990s, and so on. Although "giants" make up only one percent of total world oil fields, they made up over 60% of world oil production as of 2005. See Mikael Höök, Robert Hirsch, and Kjell Aleklett, "Giant oil field decline rates and their influence on world oil production," *Energy Policy* 37, no. 6 (2009): 2262–2272.

Since there is a finite amount of petroleum on the planet, peak oil is not so much a theory as a geologic fact—the question is exactly when it will occur, and whether it actually matters. Given the number of variables involved, there is no way to accurately predict the global peak. The exact number of “proven reserves” of petroleum is unknown, since oil-producing countries (such as Saudi Arabia) closely guard this information, and many governments tend to overestimate oil reserves.²⁸ Future technological developments that will allow producers to squeeze more petroleum out of each field are also impossible to predict, as is the public’s tolerance for the environmental impact of newer methods of production or “unconventional” sources of petroleum, such as tar sands and oil shale. Further complicating the situation, the actual global peak can only be deduced in retrospect, some years after it has occurred, by analyzing global production. As a result, as one petroleum engineer put it, “peak oil is a moving target,” since oil, as a commodity, “is always a function of price and technology.”²⁹ That said, there is some precedent for fears of an abrupt peak. Historian Richard H.K. Vietor recounts that the U.S.’s own peak in 1970 was a surprise even to industry observers—as late as 1968 petroleum journals were confidently reporting that the American producers had 2.5 million barrels per day of spare capacity.³⁰

²⁸ There are two potential motivations for nations to overestimate reserves. The first is to avoid a panic about running out of oil, which could raise prices in the short-term (and thus prove profitable for net exporters) but also stimulate development of renewable sources. The second is that groups like OPEC tie production to proven reserves. By overstating proven reserves, OPEC members would free themselves to extract more oil. For example, in the 1980s, a number of OPEC countries announced massive jumps in proven reserves almost overnight, with no explanation for the change.

²⁹ Jeff Hatlen, quoted in Jad Mouawad, “Oil Innovations Pump New Life Into Old Wells,” *New York Times*, March 5, 2007, A1.

³⁰ Richard H.K. Vietor, *Energy Policy in America Since 1945: A Study of Business-Government Relations* (New York: Cambridge University Press, 1984), 199; American Petroleum Institute, *Petroleum Facts and Figures* (New York: API, 1971), 101.

Given these uncertainties, predictions about the inevitable global peak vary widely. A recent (2011) forecast by the U.S. Energy Information Administration, for example, claimed that the peak could occur as late as 2067,³¹ while the United Kingdom Industry Taskforce on Peak Oil and Energy Security reported in late October 2008 that peak oil would likely occur by 2013.³² In 2009, the widely-respected International Energy Administration estimated that it would occur in 2020, while independent researchers from Oxford University argued, in 2010, that production would peak before 2015.³³

In contrast, most peakists believe that global oil production is *currently* at the plateau of peak production. For them, the date of the global peak is critical information: afterwards, as Cassandra put it, “the world supply will drop and prices will skyrocket.” There will be no orderly transition to a replacement for petroleum, since awareness of impending scarcity will cause panic and “resource wars” over the remaining oil that will siphon funds from the development of alternative energy source.³⁴ Skeptics assert that the precise date of a global peak is insignificant, since markets will spring into action, pushing producers to exploit old fields in new ways and researchers to develop

³¹ For an extrapolation of the date of peak oil from the Energy Information Administration 2011 report, see Eric L. Garza, “The US Energy Information Administration’s faulty peak oil analysis,” <http://www.energybulletin.net/stories/2011-08-19/us-energy-information-administrations-faulty-peak-oil-analysis>. Accessed August 27, 2012.

³² Duncan Clark, “UK Will Face Peak Oil Crisis Within Five Years, Report Warns,” *The Guardian*, October 29, 2008.

³³ Nick A. Owen, Oliver R. Inderwildi, David A. King, “The status of conventional world oil reserves—Hype or cause for concern?” *Energy Policy* 38, no. 8 (2010): 4743-4749.

³⁴ Michael Klare, *Resource Wars: The New Landscape of Global Conflict*, (New York: Metropolitan Books, 2001).

alternative energy sources.³⁵ They also point out that this is far from the first prophecy of oil depletion. In 1855, for example, an advertisement for Kier’s Rock Oil advised consumers to “hurry, before this wonderful product is depleted from Nature’s laboratory.”³⁶ In 1919, the director of the U.S. Bureau of Mines predicted that “within the next two to five years the oil fields of this country will reach their maximum production, and from that time on we will face an ever-increasing decline.”³⁷ During the 1970s, these concerns were renewed, often by mainstream economists—in 1973, for example, *Foreign Affairs* published an article with the descriptive title, “The Oil Crisis: This Time The Wolf Is Here.”³⁸

While I remain agnostic on the timing of the wolf’s arrival and the severity of its consequences, the broadest claim of the “peak everything” theory—that human action, life, and progress are dependent on material resources that are not infinite—is opposed only by a small minority of futurists, science-fiction authors, and other extreme techno-optimists. In this study, I use the peak oil movement as a prism through which we might see refracted the contours of our country’s political culture, our own reliance on petroleum, and our passivity in the face of other, related carbon catastrophes (notably climate change). As Shane Mulligan put it, oil is “an essential element of human ecology,” and as a result, “the energy resources on which our economic system relies

³⁵ See, for example, Dieter Helm, “Peak oil and energy policy—a critique,” *Oxford Review of Economic Policy* 27, no. 1 (2011): 68–69; Marian Radetzki, “Peak Oil and other threatening peaks—Chimeras without substance,” *Energy Policy* 38, no. 11 (2010): 6566–6569. Stephen M. Gorelick’s *Oil Panic and the Global Crisis: Predictions and Myths* (Hoboken, NJ: Wiley-Blackwell, 2009) offers the most detailed scholarly refutation of the peak oil scenario.

³⁶ E. D. Porter, “Are We Running Out of Oil?” API Discussion Paper No. 081, 1995, American Petroleum Institute.

³⁷ Daniel Yergin, *The Prize: The Epic Quest for Oil, Money and Power* (New York: ABC, 1996), 194.

³⁸ James Akins, “The Oil Crisis: This Time the Wolf Is Here,” *Foreign Affairs* 51, no. 3 (1973): 462-490.

may be as essential to human life, in their way, as water, biological diversity, or an intact ozone layer.”³⁹ Readers should, at the very least, take the threat of oil depletion seriously. While peakists assert that their predictions are based on basic geology, and their opponents respond by referring to the quasi-magical machinations of the market, historians will recognize that the timing and form of concerns over oil depletion are as dependent on social, political, and economic factors as geology.

This dissertation is primarily about the political implications of the peak oil movement’s response to the threat of ecological crisis, but it is also by necessity about oil itself, rightly labeled the “most powerful fuel and versatile substance ever discovered.”⁴⁰ While peakists may be mistaken about the immediacy and gravity of peak oil, their belief that petroleum depletion has the potential to cause “the end of our American way of life,” as a Virginia peakist put it, is not.⁴¹ The importance of petroleum has rarely been reflected in American scholarship and non-fiction writing, however. When historians *have* written about petroleum, have primarily focused their energies on the oil industry, petro-politics, environmental disasters and individual wildcatters.⁴² Following the lead of

³⁹ Mulligan, 87.

⁴⁰ Tyler Priest, “The Dilemmas of Oil Empire,” *Journal of American History* 99, no. 1 (2012), 236.

⁴¹ Respondent 9569301.

⁴² On the oil industry, see Ida M. Tarbell, *The History of the Standard Oil Company* (New York: McClure, Phillips & Co. 1904); Kendall Beaton, *Enterprise in Oil: A History of Shell in the United States* (New York, 1957); Harold F. Williamson et al., *The American Petroleum Industry: The Age of Energy, 1899–1959* (Evanston, 1963); and Anthony Sampson, *The Seven Sisters: The Great Oil Companies and the World They Shaped* (New York: Bantam Books, 1975). On oil politics, see *Oil and Ideology: The Cultural Creation of the American Petroleum Industry* (Chapel Hill: UNC Press, 2000); F. William Engdahl, *A Century of War: Anglo-American Oil Politics and the New World Order* (Ann Arbor, MI: Pluto Press 2004); and Yergin 1996. On wildcatters, see Edgar Wesley Owen, *Trek of the Oil Finders: A History of Exploration for Petroleum* (The American Association of Petroleum Geologists, 1975); and Lon Tinkle, *Mr. De: A Biography of Everette Lee DeGolyer* (New York: Little, Brown, 1970). On production in individual states or regions, see Paul Sabin, *Crude Politics: The California Oil Market, 1900–1940*. On oil spills, see Robert Olney Easton, *Black Tide: The Santa Barbara Oil Spill and Its Consequences* (New York: Delacorte Press, 1972); Noah Berlatsky, ed., *The Exxon Valdez Oil Spill* (Farmington Hill, MI:

scholars in geography, as well as non-fiction authors, they are only recently turning their attention to the ways that petroleum has influenced and organized life in the United States.⁴³ In 2012, when the *Journal of American History* dedicated an entire issue to “Oil in America,” it was something of a landmark.⁴⁴ As Brian C. Black noted there, the “increasing appreciation of petroleum’s importance” in history and other fields “demands that we also revise our historical narratives—that we acknowledge the hidden hand (or nozzle) when it was most essential to American life and history.”⁴⁵

Because of its seeming inexhaustibility and price-stability throughout the twentieth century, historians and other scholars have often ignored energy. Statistics—such as the fact that Americans use approximately 19 *million* barrels of oil *per day*—often fail to convey the pervasiveness of petroleum.⁴⁶ Consider, for example, the physical manufacture of the dissertation that you hold in your hands. The black cover is mostly polyester, a synthetic compound derived from petroleum. The paper was shipped by truck from a paper mill in Wisconsin. The ink used to print these words (from Xerox toner), is mostly a mixture of petroleum-based oils and resins, which was mixed in Webster, New York and then shipped to the University Bindery in Minneapolis, Minnesota. Petroleum was likely used in each of the machines used to harvest trees,

Greenhaven Press, 2011). Two notable exceptions to these categories include *Eating Oil: Energy Use in Food Production* (Boulder, 1978); and Peter H. Spitz, *Petrochemicals: The Rise of an Industry* (New York, 1988).

⁴³ For recent popular works, see Peter Maass, *Crude World: The Violent Twilight of Oil* (New York: Knopf, 2009); Lisa Margonelli, *Oil on the Brain: Adventures from the Pump to the Pipeline* (New York: Broadway, 2008); and Roberts 2004 among many others.

⁴⁴ *Journal of American History* 99, no. 1 (2012).

⁴⁵ Brian C. Black, “Oil for Living: Petroleum and American Conspicuous Consumption,” *Journal of American History* 99, no. 1 (2012), 41.

⁴⁶ In 2010 and 2011, Americans consumed an average of 19.18 and 18.83 million barrels of refined petroleum products and biofuels per day, respectively (U.S. Energy Information Administration).

operate the paper mill, and deliver the pages, ink, and cover to the printer, whether by truck, airplane, or ship.

If you're reading this work digitally, petroleum was used in every step of your computer's long and complicated commodity chain. One analysis estimates that each computer utilizes over 150 gallons of petroleum *before* it reaches the consumer.⁴⁷

Precious metals were mined all around the world, transported (each step using petroleum) many thousands of miles, manufactured (along with plastics derived from petrochemicals) in factories, stored in other buildings (often heated using heating oil), before the final product was shipped to consumers—each step requiring massive amounts of petroleum or products derived from it. While most observers are more than familiar with petroleum's primary use, as the world's most "energy-dense, easily deliverable source of fuel for transportation,"⁴⁸ less than half of each barrel of crude oil is turned into gasoline.⁴⁹ The rest is used to produce items such as asphalt, pharmaceuticals, detergents, synthetic fibers, artificial colors and flavors for food, refrigerants, all kinds of plastics, and fertilizers for large-scale agriculture. In all of these ways, "oil runs through the bloodstream of our daily lives," not just our automobiles.⁵⁰ So it runs through these pages as well.

Review of Relevant Literature and Methodology

⁴⁷ "Combien de pétrole dans mon ordinateur?" <http://www.linternaute.com/actualite/savoir/07/petrole-yaourt/7.shtml>. Accessed July 17, 2012.

⁴⁸ Jay Hakes, "A Decidedly Valuable and Dangerous Fuel," *Journal of American History* 99, no. 1 (2012), 19.

⁴⁹ U.S. Energy Information Administration, "U.S. Refinery Yield," http://www.eia.gov/dnav/pet/PET_PNP_PCT_DC_NUS_PCT_A.htm. Accessed August 1, 2012.

⁵⁰ Carl Solberg, *Oil Power* (New York: Signet, 1976), 8.

Scholars, primarily in the United Kingdom, have already examined the theory of peak oil from a number of perspectives. They have critiqued the immediacy of the threat,⁵¹ discussed the dangers of peak oil in relation to climate change,⁵² viewed it in the context of capitalist “energy imperialism,”⁵³ and examined the founder of the peak oil theory, former Shell geologist M. King Hubbert.⁵⁴ Others have speculated how the United States⁵⁵ and the entire world⁵⁶ will collectively respond to oil depletion, and attempted to assess its potential impact on future tourism,⁵⁷ urban areas,⁵⁸ public health,⁵⁹ children’s welfare,⁶⁰ globalization,⁶¹ and transportation.⁶² A few others have even

⁵¹ Helm 2011; Marian Radetzki, “Peak Oil and other threatening peaks—Chimeras without substance,” *Energy Policy*, 38 (11), 6566–6569.

⁵² Josep Peñuelas and Jofre Carnicer, “Climate Change and Peak Oil: The Urgent Need for a Transition to a Non-Carbon-Emitting Society,” *Ambio* 39 (2010): 85–90.

⁵³ John Bellamy Foster, “Peak Oil and Energy Imperialism,” *Monthly Review* 60, no. 3 (2008), 12.

⁵⁴ Emma Hemmingsen, “At the base of Hubbert’s Peak: Grounding the debate on petroleum scarcity,” *Geoforum* 41, no. 4 (2010): 531–540.

⁵⁵ Jessica G. Lambert and Gail P. Lambert, “Predicting the Psychological Response of the American People to Oil Depletion and Declining Energy Return on Investment (EROI),” *Sustainability* 3, no. 11 (2011): 2129-2156.

⁵⁶ Jörg Friedrichs, “Global energy crunch: How different parts of the world would react to a peak oil scenario,” *Energy Policy* 38, no. 8 (2010): 4562-4569.

⁵⁷ Susanne Becken, “Developing indicators for managing tourism in the face of peak oil,” *Tourism Management*, 29 (2008): 695–705; James Leigh, “New Tourism in a New Society Arises from ‘Peak Oil,’” *Tourismos: An International Multidisciplinary Journal of Tourism* 6, no. 1 (2011): 165-191.

⁵⁸ Peter Newman, “Beyond Peak Oil: Will Our Cities Collapse?” *Journal of Urban Technology* 14, no. 2 (2007): 15–30.

⁵⁹ Nikhil Kaza, Gerrit-Jan Knaap, Isolde Knaap and Rebecca Lewis, “Peak Oil, Urban Form, and Public Health: Exploring the Connections,” *American Journal of Public Health* 101, no. 9 (2011): 1598-1606; Hanlon, P. and McCartney, G. (2008), “Peak oil: will it be public health's greatest challenge?” *Public Health* 122, no. 7: 647-652; Brian S. Schwartz, Cindy L. Parker, Jeremy Hess, and Howard Frumkin, “Public Health and Medicine in an Age of Energy Scarcity: The Case of Petroleum,” *American Journal of Public Health* 101, no. 9 (2011), 1560-1567; Peter Winch and Rebecca Stepnitz, “Peak Oil and Health in Low- and Middle-Income Countries: Impacts and Potential Responses,” *American Journal of Public Health* 101, no. 9 (2011): 1225-1234.

⁶⁰ Paul J. Tranter and Scott Sharpe, “Escaping Monstropolis: child-friendly cities, peak oil and Monsters, Inc.,” *Children’s Geographies* 6, no. 3 (2008): 295–308.

⁶¹ Fred Curtis, “Peak Globalization: Climate Change, Oil Depletion and Global Trade,” *Ecological Economics* 69, no. 2 (2009) 427–434.

⁶² Montira Watcharasukarn, Shannon Page and Susan Krumdieck, “Virtual reality simulation game approach to investigate transport adaptive capacity for peak oil planning,” *Transportation Research* 46, no.

discussed responses to peak oil by individuals and groups by charting the psychology of “peak oil acceptance,”⁶³ by analyzing different kinds of peak oil narratives,⁶⁴ and by examining the Transition Town movement in the United Kingdom.⁶⁵

I utilize this secondary literature throughout this dissertation, but most of my claims are based on original research conducted over the last five years. My mixed methodology includes interviews with peak oil leaders and rank-and-file believers, discourse analysis of movement websites and online forums, visits to Transition Towns, literary analysis of peak oil novels and non-fiction works, and archival research. The evidence for my claims also relies on two large-scale online surveys (N=1128 and N=628) conducted in 2011. Both surveys were anonymous and used snowball sampling (or “chain-sampling”) to recruit participants,⁶⁶ while specific questions ensured that respondents belonged to the target population.⁶⁷ The number of responses was evidence

2 (2012): 348–367.

⁶³ Lyle K. Grant, “Peak Oil As a Behavioral Problem,” *Behavior and Social Issues* 16, no. 1 (2007): 65-88; Ugo Bardia, “Peak oil: The four stages of a new idea,” *Energy* 34, no. 3 (2009): 323–326; Adrian Atkinson, “Progress in acknowledging and confronting climate change and ‘peak oil,’” *City* 14, no. 3 (2010): 314-322; Lin Zhao, Lianyong Feng, Charles A.S. Hall, “Is peakoilism coming?” *Energy Policy* 37, no. 6 (2009): 2136–2138.

⁶⁴ John C. Pruit, “Considering Eventfulness as an Explanation for Locally Mediated Peak Oil Narratives,” *Qualitative Inquiry* 17, no. 2 (2011): 197-203.

⁶⁵ Smith; Bailey, Hopkins, and Wilson; North.

⁶⁶ Online surveys are especially useful for research on “hidden” populations and populations with unpopular political views. See Kevin B. Wright, “Researching Internet-Based Populations: Advantages and Disadvantages of Online Survey Research, Online Questionnaire Authoring Software Packages, and Web Survey Services,” *Journal of Computer-Mediated Communication* 10, no. 3 (2005). As a survey method, snowball or chain sampling was chosen because it aids in recruiting “hidden” populations. I allowed any interested party to complete the surveys, and asked respondents to forward the links to their “peak oil aware” friends and acquaintances. The potential biases inherent in this methodology—such as the accuracy of self-reported information and self-selection bias—were counterbalanced by other research methodologies. For example, the potential that the population of peakists who would answer an online survey (or even use a computer) might answer in systematically different ways than peakists who would not answer an online survey (or use a computer) was disproven by interviews with believers at peak oil conferences and Transition Towns.

⁶⁷ For example, in response to the question, “If you had to quantify your level of certainty in the fundamental theory of peak oil -- that global oil production will peak in the next decade (if it hasn't

of the size of this community: the first survey, conducted in January 2011, gathered over one thousand responses to multiple-choice and open-ended questions within one week from just two links on peak oil websites. These surveys provide statistically significant support, but, perhaps more importantly, a wealth of detailed responses to open-ended questions. My respondents, as informal members of a group generally ignored or caricatured by the media and marginalized by their friends, co-workers, and family, were often eager to share their thoughts. As a result, this dissertation provides a wealth of detail and a level of analysis of the peak oil phenomenon that has not previously been possible.

My methodology benefitted from the tools of the sociologist—gathering such detailed information from already hard-to-find actors would be impossible years or decades after the fact—but my approach to this subject is historical. This dissertation is a recent history of the peak oil movement; to the extent that the period and events described should be immediately recognizable and not a distant, “foreign country,” it might be considered a “history of our own time” or even a “history of the present.”⁶⁸ Writing about recent events has its hazards: the passage of time allows for a broader perspective, with the release of previously unknown sources and the ability to consider competing interpretations. Writing accounts of recent events requires a sense of self-

already), and that this event will have grave and potentially apocalyptic effects on the United States and around the world -- on a scale of 1 to 10, what would it be? 1 is disbelief, 10 is complete certainty,” 93.8% of respondents to the first survey, and 85.6% of respondents to the second survey answered “7” or more. The mean for each question was 8.70 and 8.85, respectively.

⁶⁸ L.P. Hartley, *The Go-Between* (London: H. Hamilton, 1953); Llewellyn Woodward, “The Study of Contemporary History,” *Journal of Contemporary History* 1, no. 1 (1966): 1-13. Although the phrase “history of the present” is often attributed to Michel Foucault, it was first used by John Dewey, and possibly appropriated by Foucault. See Randall E. Auxier, “Foucault, Dewey, and the History of the Present,” *The Journal of Speculative Philosophy* 16, no. 2 (2002): 75-102.

awareness, since, as Michael S. Roth put it, “writing a history *of* the present means writing a history *in* the present, self-consciously writing in a field of power relations and political struggle.”⁶⁹

Even so, I contend that recent histories have their virtues. In the wake of the recent economic recession, history departments throughout the United States are being trimmed, and support for historical research is diminishing.⁷⁰ In classrooms, instructors face students who question how a greater understanding of history, or the humanities in general, will benefit them.⁷¹ While “history for its own sake” should certainly not be ignored, “histories of the recent past promise to fulfill another key role that history has often sought to achieve” but only rarely acknowledge explicitly, as Renee C. Romano noted in a recent essay on historiography: “to shed light and historical understanding on the world we live in today.”⁷² Recent histories, or scholarly works explicitly connecting historical subjects to the contemporary world, can play an important role in doing this,

⁶⁹ Michael S. Roth, “Foucault's ‘History of the Present,’” *History and Theory* 20, no. 1 (1981), 43.

⁷⁰ See Robert B. Townsend, “History Under the Hammer,” and Anthony Grafron, “History Under Attack,” *Perspectives on History* 49, no. 1 (2011).

⁷¹ In a discussion with journalist Bob Woodward on his historical legacy, President George W. Bush the now-common view that history requires a distant perspective: “‘Well, how is history likely to judge your Iraq war,’ says Woodward. ‘And [President Bush] said, ‘History,’ and then he took his hands out of his pocket and kind of shrugged and extended his hands as if this is a way off. And then he said, ‘History, we don't know. We'll all be dead.’” (Rebecca Leung, “Woodward Shares War Secrets,” CBS News, December 5, 2007.)

⁷² Renee C. Romano, “Not Dead Yet: My Identity Crisis as a Historian of the Recent Past,” in Claire Bond Potter and Renee C. Romano, eds., *Doing Recent History: On Privacy, Copyright, Video Games, Institutional Review Boards, Activist Scholarship, and History That Talks Back* (Athens and London: The University of Georgia Press, 2012), 42. At least one historiographer has noted that this has always been a concern of American historians. As Herman Ausubel summarized, “judged by their presidential messages, many leaders of the American Historical Association were less concerned with the past than with the present...if one theme figured more prominently than any other in their messages, it was that of the immediate usefulness of history.” Ausubel, *Historians and Their Craft: A Study of the Presidential Addresses of the American Historical Association, 1884-1945* (New York: Russell & Russell, 1965).

and thereby make history more perceptibly relevant at a time when the humanists are increasingly being called on to justify their value.⁷³

Chapter Summaries

Chapter 1 introduces the range of Americans involved in the peak oil movement, their motivations, their responses to the threat of ecological collapse, and the social consequences of their actions. I use quotes from my surveys and peakist online forums to explain the ideology and shared experiences of peak oil believers: their quasi-religious conversion experiences, dramatic change in thinking, and reordering of their personal cosmologies. As a window into the peakist subculture, I profile two well-known figures, evangelist James Howard Kunstler and “Peak Shrink” Kathy McMahon. Kunstler was peak oil’s Jeremiah, a one-time journalist whose blog, speaking tours, television appearances and non-fiction books, such as *The Long Emergency: Surviving the Converging Catastrophes of the Twenty-First Century* (2005), spread the peak oil gospel. McMahon, the “Peak Shrink,” was a psychotherapist and professor who transformed her practice and personal life after learning about peak oil. In her popular “Peak Oil Blues” blog and subsequent book, *I Can’t Believe You Think That!’ Relationship Struggles around Peak Oil, Climate Change and Economic Hard Times* (2011), she addressed the psychological and emotional fallout of “peak oil awareness.”

⁷³ Openly connecting history to the present might seem in danger of exposing an objective appraisal to infection by political and other biases. This charge may have carried some weight a few decades ago, but it no longer sticks. “Objectivity” remains a goal, of course, but most historians now acknowledge that it is ultimately unattainable, like the distant limit in Zeno’s paradox. Instead, we are more likely to judge a work by its evidence, fairness, originality, and contribution to existing knowledge. See Peter Novick, *That Noble Dream: The ‘Objectivity Question’ and the American Historical Profession* (Cambridge: Cambridge University Press, 1988), 415-629.

McMahon formulated an alternative profile of psychological health, where acute awareness of ecological crisis and preparation for the collapse of global society was not a symptom of emotional instability or mental illness but a sign of lucidity and health. Conversely, she pathologized “normal” responses to environmental problems, from “rigid Cheneyism” to “neoliberal economic tendencies.” Chapter 1 applies this through-the-looking-glass perspective to an experience shared by almost all peak oil believers: social marginalization as a result of discussing and acting on grim environmental theories, such as peak oil and anthropogenic climate change. Using Barbara Ehrenreich’s (2010) and Karen Cerulo’s (2006) analyses of American optimism, I highlight the ways that peakism deviates from the American “dominant social paradigm” of implicit faith in technology and the inexhaustibility of crucial resources.

Chapter 2 places the peak oil movement in historical context by exploring the convergence of peakism in the early 2000s as well as popular beliefs about abundance, scarcity, and limits in recent U.S. history. Many believers were drawn to the peak oil theory by three major events that placed petroleum squarely in the public eye, as had only previously occurred during the 1970s oil crises: America’s invasion and occupation of Iraq, which critics claimed was motivated by geopolitical energy concerns (“blood for oil”); the sudden rise of oil and gas prices after a decade of stable, low prices; and the growing awareness of climate change. Through analysis of media coverage, website and forum membership statistics, and interviews with influential geologists, authors and lecturers, I trace the diffusion of the concept of peak oil and the formation of a primarily virtual social movement.

I then situate peakism in a much longer historical context by looking at popular beliefs about abundance, scarcity, and limits—often centered around energy availability—in the United States over the last century. From post-war optimism, buttressed by full exploitation of petroleum for industrial purposes, to the “Malthusian moment” of the late 1960s and 1970s, to the reassertion of limitless goals and consumption in the 1980s, these patterns of beliefs in abundance and concerns over scarcity are the backdrop against which assertions of recent assertions of limits are often understood. I conclude by assessing the return of “limits” discourse, around climate change as well as resource depletion, in the last decade.

In chapter 3, I argue that the surprising individualism of peakists is evidence of the influence of libertarian ideas on Americans who do not consider themselves conservative. For the most part, peakists prepared alone, stockpiling goods, conserving energy, changing jobs and purchasing land. They doubted the ability of political institutions to address contemporary ecological crises. This skepticism of the federal government to manage major societal issues—whether environmental problems, healthcare, or de-segregation—is considered one of the hallmarks of conservatives, not what one might expect from a group composed of self-identified “liberals” and “progressives.” Using public polls and secondary literature in political science and history, I view the peak oil movement in the context of a transformation in American political culture over the last three decades: the growth of libertarian ideals. As the result of the conservative movement that fully emerged with Ronald Reagan’s election in 1980, Americans of all parties and persuasions came to conceive of themselves and their

citizenship in distinctly libertarian terms—individualistic, market-based, and privatized—and this has had a significant impact on politics and social life in the United States.

This shift has been accelerated by the use of Internet technology. The peak oil movement, as a primarily virtual phenomenon, demonstrates the tendency (or “social affordance”) of the Internet to create a culture of “networked individuals,” participants in fleeting virtual communities that rarely transition into the offline world. Despite the widespread hype of the Internet’s impact on politics, I argue that the virtual medium can also serve to de-politicize participants. Although the Internet has often been compared to the crowd, it lacks most of the characteristic experiences of participating in mass actions, such as de-individuation and collective empowerment; in the case of the peak oil movement, participants also tend to underestimate their size, and thus dismiss their potential for political action. With reference to the libertarian origins of the American Internet, I show that these effects are the product of the Internet’s formation during the ascendancy of neoliberalism and design by engineers with a tendency towards “cyber-libertarianism.”

Chapter 4 situates beliefs about ecological collapse in the context of the long history of American apocalypticism and highlights the ways that peakist narratives have borrowed and diverted from previous millennial prophecies. From the Puritans to atomic hysteria to the post-holocaust novels of recent years, Americans have always been drawn to apocalyptic scenarios. I chart the influence of one recent manifestation of this tendency, eco-apocalyptic Hollywood disaster movies of the 1990s and 2000s, on peakists’ conception of environmental change. Using the genre of peak oil fiction, a

close-reading of James Howard Kunstler's prophetic novel *World Made By Hand* (2008) and debates on online forums, I explore the political implications of the apocalyptic predictions of many peak oil believers. I connect the "excitement" about the post-peak world that many believers experience to their anti-capitalist, anti-imperialist aspirations. At a moment when solutions to ecological crises through electoral politics seem unlikely to many Americans, the prophecy of peak oil provides one means of imagining a significantly different world. Adherents see peak oil as an imminent, transformative event that will put an end to American imperialism, capitalism, and environmental destruction and deliver a superior, more environmentally balanced future. This revolution will not be authored by elected politicians or social movements, but by the petroleum-dependent American way of life tripping over its ecological limits. I suggest that certain aspects of this group's political quiescence reflects a similar dynamic among the broader environmentally aware American left.

Using peak oil fiction, online forum comments and survey responses, I explore the racial and gender dynamics of the peak oil movement. Some male peakists seemed to fear that gender equality and immigration would erode their own privilege. These fears were exacerbated by the long-term political economic changes and the recent economic recession (or "mancession"), which led some male peakists to posit (or hope for) the reversal of feminism in a post-carbon world. Acutely aware of changing conditions, many posit a return to a mythical pioneer masculinity as a solution to the most recent "crisis" of white masculinity. With these issues in mind, I explore the similarities between peak oil believers, survivalists, and liberal "preppers," including an analysis of

the television show *Revolution* (2012-2013).

My conclusion summarizes the lessons of *Peak Politics* and applies them to our contemporary political and environmental situation. I contend that the very real crises that Americans and the planet now face, which include climate change, a globally interconnected economy, and eventual resource depletion (including fossil fuels), requires a intra- and international communitarian engagement that demands a historical break with the long tradition of American individualism and the more recent culture of optimism. As such, the rise of libertarian ideals (whether embodied by conservatives, moderates, liberals, or leftists), which were the product of the frontier spirit, a half-century of post-WWII American wealth and hegemony and a Reaganite opposition to any discourse of limits (ecological or geopolitical), may prove ill-suited for the near future. The sooner we recognize this incongruity, the better off we will be for it.

Chapter 1: The Peak Oil Ideology and Subculture

I look for ways to use less energy and go lighter upon the land (white male, liberal, Florida, 50-55)

It has changed my entire being. I went from a futurist cornucopian to a doomer in about 2 years. I gave up my car and ride a bike everywhere now. I installed a little solar and I take steps to try to prepare for the coming squeeze (white male, mathematician, Mississippi, 36-40)

Anyone who points out the ridiculousness of our current way of life and its dependence on a fundamentally unsustainable resource is laughed at as crazy or shunned as a 'downer' (white male, Democrat, Florida, 30-35)¹

As these comments suggest, the theory of peak oil inspired intense conviction as well as action. Peak oil believers described their awareness of oil depletion and environmental crisis in terms that were strikingly similar to a religious conversion. They recalled the exact moment it occurred, their emotional reaction, the dramatic change in thinking, and the reordering of their personal cosmology. Long-held normative assumptions about the natural environment, the nation, the future, and ethical conduct were questioned and often swept aside.² Many believers found new occupations, purchased land, and sundered ties with friends and family. In this chapter, I explore the ideology of “peakism,” a belief-system that began with simple doubts about energy

¹ Respondents 9566752, 9682014, and 9576993.

² As this experience of conversion suggests, belief in peak oil bears a “family resemblance” to proper religions. After becoming “peak oil aware,” adherents share a belief in worldly destruction and a new conception of proper or ethical conduct; practice rituals of prediction, prophecy and preparation; and attempt to evangelize and convert their friends and family. See Bron Taylor, “Exploring Religion, Nature and Culture,” *Journal for the Study of Religion, Nature and Culture* 1, no. 1 (2007): 5-24. 45% of respondents said that their religious preference was “none,” and 62% said that religion was “not very important” to them. In a similarly worded poll of all Americans taken a year before, only 14% of Americans answered “none,” while 20% answered “not very important” (Gallup 2010). That peakists are much less likely than other Americans to believe in God and describe religion as important to them suggests that for some, peak oil is not compatible with or serves similar functions to traditional religions. For a minority, however, peak oil does imply a spiritual element—see, for example, Carolyn Baker’s *Sacred Demise: Walking the Path of Industrial Civilization’s Collapse* (Bloomington: iUniverse, 2009). Although peakism lacks a conception of the sacred or supernatural for most adherents, belief in the peak oil theory certainly has religious dimensions.

security and led for many to a dramatic personal transformation. I use information culled from my surveys to illustrate the beliefs that peakists held in common, and then examine the ways that this belief-system was been expressed in real-world actions and a rich virtual subculture by profiling the motivations, concerns, and contradictions of three peak oil believers and two influential authors and bloggers, peak oil jeremiah James Howard Kunstler and “Peak Shrink” Kathy McMahon. I conclude by differentiating peakism from the “dominant social paradigm” held by most Americans, characterized by an implicit expectation of social progress, unlimited economic growth, and technological solutions to future problems, and document some of the social consequences of adopting a radical ecological identity such as peakism.

Peakism

“Peakism” is the ideology of peak oil believers.³ As historian Eric Foner defined it, ideology is a “system of beliefs, values, fears, prejudices, reflexes and commitments—in sum, the social consciousness—of a social group.”⁴ Belief in “peak oil” is much more than an isolated opinion about petroleum reserves, but comprises an entire system of beliefs, since it “poses another Answer For Everything competing for the roles against many hundred other Answers,” as an Arizona man put it.⁵ Specifically, peakism is

³ Feng and Hall 2009. In an article on Energy Bulletin, Kurt Cobb asks the question, “What should members of the peak oil movement call themselves?” He considers “peakists,” “doomer,” “peak oil advocate,” “peak oiler,” “peak oil believer,” and “peak oil activist.” Kurt Cobb, “What should members of the peak oil movement call themselves?” <http://www.energybulletin.net/node/38052>. Accessed November 18, 2011.

⁴ Eric Foner, *Free Soil, Free Labor, Free Men: The Ideology of the Republican Party Before the Civil War* (New York: Oxford University Press, 1970), 4. Throughout this book, I use “ideology” and “belief-system” interchangeably.

⁵ Respondent 9686672.

marked by many of the same characteristics of recognized ideologies, including internal coherence; intellectual abstractness; specificity; sophistication; dogmatism; and affective investment.⁶ While “ideology” is a contested term in contemporary scholarship, in this case it appropriately represents the degree to which peakists adopted a package of beliefs and expectations that set them apart from most Americans.⁷ My use of “ideology” does not carry the pejorative connotation of false consciousness, but it does recognize that the adoption of a counterhegemonic ideology often “entails an aggressive alienation from the existing society.”⁸

“Peak oil” refers to the maximum rate of global petroleum production, after which oil prices are expected to rise steeply. Peakists believe that the peak of production is almost upon us or has already passed, while most geologists and oil industry insiders believe that a peak in conventional global petroleum production is years if not decades away. Befitting a “people of plenty,” most Americans have a tacit, (if unexamined) faith in the development of new technology to provide energy for future generations, but peakists are pessimistic about the potential for other fossil fuels and renewable energy sources to replace petroleum, not only as fuel for transportation but to produce plastics, pharmaceuticals and the enormous array of petrochemicals our current way of life demands. They hold fast to a set of practical doubts about the feasibility of other energy

⁶ Edward Shils, “Ideology: The Concept and Function of Ideology,” in Paul Edwards, ed., *The Encyclopedia of Philosophy 4*, (New York: MacMillan, 1967): 974-978.

⁷ The degree of belief in the theory of peak oil—the question of who is and who is not a peak oil believer—was most directly measured by responses to the question, “If you had to quantify your level of certainty in the fundamental theory of peak oil -- that global oil production will peak in the next decade (if it hasn't already), and that this event will have grave and potentially apocalyptic effects on the United States and around the world -- on a scale of 1 to 10, what would it be? 1 is disbelief, 10 is complete certainty.” The mean for both surveys was 8.7, with over 95% answer “7” or higher.

⁸ Shils, 66.

sources replacing petroleum, which constitute articles of faith so central to their ideology that they are worth explaining in some detail.

Natural gas is subject to its own limits, it is difficult to transport, and the U.S. lacks the infrastructure needed to replace gasoline with natural gas as fuel for transportation—most oil pipelines are too porous for natural gas, for example. Coal is an inefficient energy source (compared to petroleum), and the health and environmental consequences of coal mining and combustion are increasingly considered intolerable. As the Fukushima disaster in Japan showed, nuclear meltdowns could render entire countries uninhabitable, and the question of safe nuclear waste disposal has never been answered. While renewables such as solar and wind power will be critical to energy production in a post-petroleum world, they are seen as not reliable or efficient enough to replace fossil fuels on a global scale. Even if an Apollo-style project of renewable energy development were to be implemented, peakists believe that it is simply too little, too late. ‘Resource wars’ over remaining petroleum will siphon funding funds and expertise that could go towards the development of alternative energy sources. As billions of people in the global South (such India and Brazil) and less-developed countries (such as China) seek and achieve a first-world, high-energy lifestyle—the average American currently uses over four times as much as energy per year as her Chinese counterpart—the global demand for a finite resource will only grow.⁹

⁹ See, for example, Julian Darley’s *High Noon for Natural Gas* (White River Junction, VT: Chelsea Green, 2004); *Beyond Oil: The View from Hubbert’s Peak* (New York: Hill & Wang, 2005); Paul Roberts, *The End of Oil: On the Edge of a Perilous New World* (Boston: Houghton Mifflin, 2004); Richard Heinberg, *The Party’s Over: Oil, War, and the Fate of Industrial Societies* (Gabriola Island: New Society Publishers, 2003); Michael Klare, *Resource Wars: The New Landscape of Global Conflict* (New York: Holt, 2002). For energy use per capita per annum, see the World Bank Databank, <http://data.worldbank.org/indicator/EG.USE.PCAP.KG.OE>. Accessed May 19, 2013. As Timothy

Despite its name, the peak oil ideology is more accurately described as “peak everything,” reflecting the limits-to-growth environmental paradigm that emerged in the United States in the late 1960s.¹⁰ Peakists are concerned with the threat of an ecological collapse of which petroleum is the central symbol, and most consider peak oil and climate change to be interconnected twin crises. A young peakist from Nevada argued that oil depletion is not an isolated issue, but “part of a larger pattern including climate change, over-population, degradation of our physical earth (deforestation, denuding of farming landscapes, etc),” and a Virginia woman in her late forties agreed, claiming that peak oil is “part of larger environmental crisis. Other resources are peaking or declining as well (fertile topsoil, wild fish, pollution sinks).” A *New Yorker* identified the problem even more broadly: “how humans interact with the environment overall.” “Peak oil” is not so much an obsession with oil, then, but a form of radical environmentalism that comprehensively re-evaluates the ecological relationship between humans and the natural resources we depend on. Although the “peak” in “peak oil” is a reference to the standard graph of petroleum production (see Fig. 1.1), which approximates a bell curve, it is also a metaphor: whether a plateau or a cliff, a “peak” is the point after which an inexorable decline sets in. The y-axis of this graph represents global oil production, but for many believers it could be replaced with something much more meaningful, such as the expectation of continued progress, societal complexity, or capitalism—or something much more subjective, such as quality of life, happiness, or peace.

Mitchell has noted, expanding demand and shrinking supply now mean that a new equivalent of Saudi Arabia must be discovered approximately every three years. *Carbon Democracy: Political Power in the Age of Oil* (New York: Verso, 2011), 232.

¹⁰ Richard Heinberg, *Peak Everything: Waking Up to a Century of Decline* (Gabriola Island: New Society Publishers, 2007).

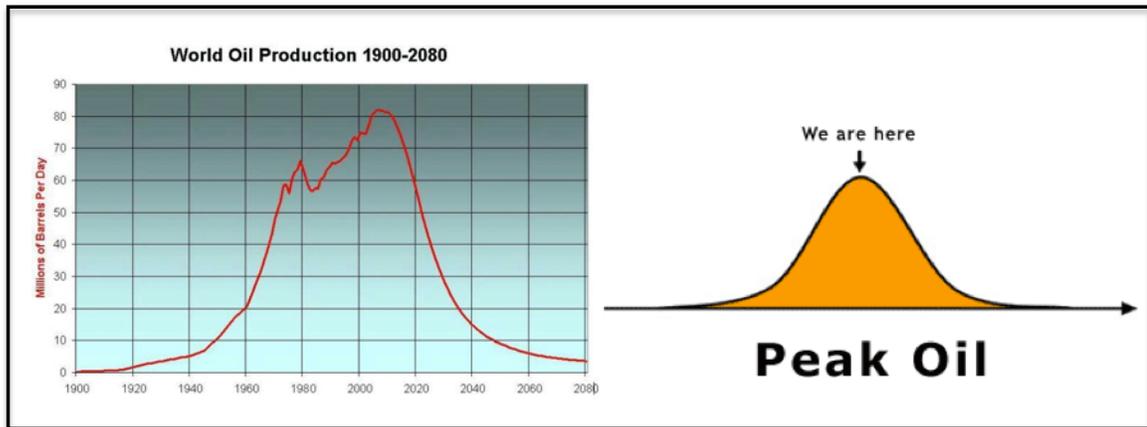


Fig. 1.1. Left, a graph of world oil production to 2004 and prediction of bell-shaped decline. Right, a popular peakist representation, reproduced on dozens of websites and T-shirts designs.

For peakists, basic doubts about the future of energy production led to an ideological conversion and personal transformation. The moment that peakists “learned about peak oil” or “got it” was often revelatory—the difference between their conception of the future before and after their awakening is so stark that it cleaves their lives in two.¹¹ A Washingtonian said that his “future plans are framed by a peak oil future” and a Minnesotan in his late twenties said that peak oil “will influence all” of his “future occupation and lifestyle choice.”¹² For most others, the change had already become evident in their lives. A Hawaiian man in his late fifties said that a “complex of environmental issues,” including peak oil and climate change, had “defined my adult and professional life,” while a carpenter admitted that “all of life is now seen through the lens of a lower energy future and that has affected all of my choices.”¹³

¹¹ Although a religious awakening is one obvious parallel to this experience, political transformations also provide some interesting similarities. Many second-wave feminists, for example, describe the “click” of a personal revelation about gender and patriarchy. See J. Courtney Sullivan and Courtney E. Martin, eds., *Click: When We Knew We Were Feminists* (New York: Seal Press, 2010).

¹² Respondents 9576345 and 9649893.

¹³ Respondents 9688522 and 9575766.

For these Americans, “peak oil” refers to a dramatic teleology in which energy scarcity leads to the collapse of the late-modern capitalist system. Pessimists, known as “doomers,” envision a millennial series of events involving warfare over scarce resources, epidemics, famine, and billions of deaths that will leave survivors in a dark age, while more hopeful adherents imagine a less violent transition into a post-peak world that is simpler, smaller, and less globalized. There is significant variation in the beliefs of the peakist community, but they are primarily disagreements over the degree and immediacy of the crisis. Some claim that global oil production peaked in the early 2000s (and is now on a plateau), while others predict that it is a decade away. Early adherents portrayed the peak oil crisis as a discrete event that would unfold over a few months; others, citing books such as Joseph Tainter’s *The Collapse of Complex Societies* and Jared Diamond’s *Collapse: How Societies Choose to Fail or Succeed*, predict a decades-long decline.¹⁴ Some believe that the effects will not be felt for a few years, while others consider energy scarcity to be the root cause of the recent economic recession.

Nonetheless, my surveys show that peakists do share a set of beliefs that differentiate them from socio-economically similar Americans in important ways. While most people who have contemplated these issues (already a minority of Americans) tend to believe that any future energy shortages will be solved by technological leaps and renewable energy sources, few peakists agree. On average, they viewed “resource wars” for petroleum, a halved or quartered global population, and an apocalyptic scenario, including mass epidemics and billions of deaths, as three times more likely than

¹⁴ Joseph Tainter, *The Collapse of Complex Societies* (Cambridge: Cambridge University Press, 1988); Jared Diamond, *Collapse: How Societies Choose to Fail or Succeed* (New York: Allen, 2005).

continued “business as usual.” Almost all expected a significant drop in quality of life for Americans.¹⁵ This ideology is almost the inverse is of the expectation of social progress and unlimited economic growth that was still widespread in the pre-recession United States, a contrast I return to at the end of this chapter.

Their values and sense of self often change along with their ideology. A Maryland man said, “I am more aware of how my personal lifestyle, as well as that of broader society, is dependent on fossil fuel, and how we will all be affected,” while a Coloradan in his late forties is now “living more for the moment” as opposed to “planning for the future.”¹⁶ A woman in her sixties, who sees peak oil and climate change as a “wake up call that our civilization is going through a paradigm change,” said that she had “learned to live with a whole lot less” and was “discovering that what's important to me is not driving an expensive car or living in a 5,000 sq ft house or flying halfway around the world to go on vacation.”¹⁷

These psychological preparations for collapse and its aftermath were often emotionally painful, and most respondents admitted to short-lived feelings of depression and hopelessness after becoming peak oil aware. However, a surprising number reported that their transformation had been psychologically beneficial.¹⁸ The Mississippi man

¹⁵ In response to the question, “Which of the following do you see as most likely for the country you currently reside in? Please rate each on a scale of 0 to 10,” American peakists provided the following responses: Business as usual with no major consequences = 2.01; Better technology and new energy sources allow for little change = 2.26; A gradual shift into a lower-energy world = 5.71; Apocalyptic scenario (i.e. violence, epidemics, die-off) = 6.37; A smaller population = 7.35; Resource wars for remaining energy = 8.18; A significant drop in quality of life = 8.24. In discussions about energy futures, “business as usual” denotes a continuation of current energy regimes and global neoliberal capitalism without a major shift in course.

¹⁶ Respondents 9568924 and 9569376.

¹⁷ Respondent 9592049.

¹⁸ Respondent 9707518.

quoted in this chapter's epigram claimed that his conversion brought on "the opposite of depression. It gave me a framework, and people who believed the same."¹⁹ Many seemed to believe that, as a poster to the website Life After The Oil Crash put it, "there's an amazing identity and purpose behind realizing [peak oil]. [It] has helped me take closer notice of life, and spend more time with family and friends, and appreciate the qualities of people and the world round me."²⁰ A Nevada woman in her early fifties said that she is now "living a much simpler life," and "approach[ing] life more a day at a time. Spending much more time with loved ones and much less time focused on money and possessions. The changes have been good for me and my family," and a New York man of the same age is now "more aware of what I have and enjoy 'simple' everyday things like reading a good book or taking a nice brisk walk."²¹ A surprising number of believers even found in environmental apocalypticism the motivation to get in shape, such as the Arkansas man who said, "I slowly begun to take more care of my physical health because it will be necessary for a day with less energy."²²

From Belief to Personal Action

Becoming "peak oil aware" caused most believers to change the way that they lived to reflect their revised goals, priorities, and expectations. A Colorado man in his fifties said that his new "lifestyle is patterned after educating myself to how to live in a world with less oil," while a new father in his thirties said that his awareness of oil

¹⁹ Respondent 9682014.

²⁰ "Flycreeper," "Preparation Philosophy," Life After the Oil Drum, <http://www.lifeaftertheoilcrash.net/902385028>. Accessed April 26, 2009.

²¹ Respondents 9574456 and 9575542.

²² Respondent 9680012.

depletion “has changed my entire being. My wife and I are totally restructuring our future.”²³ A New Yorker who had helped found the MeetUp group “Peak Oil NYC” and organized peak oil conferences in 2005 and 2006 said that his “awareness of the impending reality of Peak Oil is both directly & indirectly, the underlying driver for most of my activities.”²⁴ What actions did he and others take? Nearly three-quarters of American peakists have begun preparing food and supplies for the coming crisis, one in five has changed their occupation to reflect their new interests or require less carbon-intensive commuting, 53% drive less and 32% purchased a more energy-efficient car. Only 11% have yet to act on their beliefs.²⁵ As I will show, these actions were primarily personal, and not political—for reasons that I explore in chapter 4, only 28% of respondents had engaged in political activities related to peak oil, and many of these had attended only one meeting.²⁶ Before exploring the wide range of responses, let us look in closer detail at the “peak oil narratives” of three representative individuals.

A native Tennessean in his late fifties, “Robert” first heard of peak oil in 2001, and quickly “began reviewing other sources to confirm what I had read, as well as paying more attention to current news and analyses about energy topics.” He saw oil depletion as a part of “a convergence of problems facing humanity,” which include “climate change, imperialism, increasing income disparities and poverty, corporatist capitalism” and “infrastructure obsolescence and decay.” He described himself as a socialist, and

²³ Respondents 9682014 and 9573763.

²⁴ Respondent 9593771.

²⁵ 72% of American peakists answered “Yes” to the question, “As a result of your knowledge of peak oil, have you done any of the following - Prepared food or other supplies for yourself and your family.”

²⁶ While this number might be considered evidence of politicization for some groups of Americans, many respondents already had long histories of political activism.

was so “disgusted with both parties” that he no longer even voted. After the major peak oil websites (described in the next chapter) went on-line in 2004, he became an active member of the virtual community, checking in multiple times every day until 2010, when he decided to shift from gathering information to preparing. His life was then organized around the question, “If I prepare now, how can I maintain a good quality of life for my family when energy becomes much more expensive, rationed, or intermittently unavailable?” Despite having never physically met another peak oil believer, he reduced his energy consumption by moving “closer to [my] job and family” as well as “trying to walk more. Trying to eat less meat,” since meat (in the United States) is two to four times more energy-intensive as vegetables and grains, and “trying to buy local food” that had not been shipped from thousands of miles away. He cut down on energy waste by “turning down [the] thermostat in winter, up in summer. Insulating home.” To prepare for the collapse and its aftermath, he was “trying to grow, preserve and store food,” as well as “buying bikes, sweaters, long underwear,” which would be in high demand. He altered his physical environment, by “planting trees,” as well as his financial investment strategy, by “investing in precious metals and long-term oil futures.” Beyond these tangible preparations, Robert was actively “maintaining awareness” about the timing of the expected crisis and “educating [his] family.”²⁷

“Mary” from Massachusetts told a similar story of transformation and preparation. She first learned about peak oil in 2005, when she “wanted to become self-sufficient and learn more about gardening and preserving food.” She “began perusing websites. I saw the term 'peak oil' on Sharon Astyk's site [The Chatelaine's Keys] and the

²⁷ Respondent 9590253.

Homesteading Today forum. I picked up a link to The Automatic Earth,” a blog discussing issues such as peak oil, climate change and the economic recession, and “began reading/studying their archives and links to other sites.”²⁸ From 2006 to 2009, she checked these websites many times a day. Although she had never suffered from depression before this period, she said that becoming “peak oil aware” had a significant (though short-lived) impact on her mental state. She now foresees, in the near future, resource wars and a social collapse, including violence, a ‘die-off,’ and mass epidemics.

Like many believers, she found her new ideology to be socially isolating:

After sharing my concerns with family members and a few friends, I realized very few people were willing to take the issue seriously. They would look at me like I was crazy. When you learn your whole world is going to change, it is overwhelming. Most of the responses that I got were 'we're discovering new oil fields all the time' or 'technology will save us.' My favorite response is 'If that were true, it would be all over the news!'

Despite never physically meeting another peak oil believer, Mary also decided to transform her life:

We planted fruit trees, grapevines, began gardening and preserving our food. Stockpiled food/seeds. We added chickens and bees to our homestead. Learned to make bread from wheat that we grind. Began assessing energy needs. Considered

²⁸ Sharon Astyk, *The Chatelaine's Keys: Finding the Keys to the Future*, <http://sharonastyk.com>. Homesteading Today: Neighborly Help and Friendly Advice, <http://www.homesteadingtoday.com>. The Automatic Earth, <http://theautomaticearth.com/Front-Page.html>. Accessed December 1, 2012.

moving to a smaller place. We've bought some hand tools. We evaluate every purchase in terms of the post peak world.²⁹

“Michael,” a fifty-something teacher with a PhD, considered himself an anarchist and had always been active in environmental campaigns. After reading an article about peak oil author James Howard Kunstler in 2006, Michael “looked up the topic on line and started reading books and articles and following forums like [The Oil Drum].” From 2007 to 2011, he checked these websites sites every day, because they “provide (mostly) intelligent conversation with (mostly) people who have a clue.” Unlike Robert and Mary, he had attended collective meetings, such as Transition Town gatherings and peak oil lectures, and was politically active in the Democratic Party, the Green Party, and around specific environmental issues. Michael sees oil depletion as an issue endemic to “growth oriented industrial economies, especially now capitalism with [its] hyper-consumption,” exacerbated by “over-population.” He argues that contemporary capitalism, which originated in “Indo-European patriarchal, militarist and expansionist ideologies,” tends to see “the world as something to conquer,” and is willing to “burn and break things to get what it wants.” As a result, he foresees an “economic collapse” in the United States, in which the “gov[ernment] [is] unable to fund basic services,” with “massive unemployment and mortgage defaults (already [happening]). Mostly more and more of us falling into the deeply poor with a small super-wealthy class—unless movements overturn them.”

Michael said that climate change was “as much” of a motivation as oil depletion for his numerous actions:

²⁹ Respondent 9569860.

I don't fly, and mostly don't drive. Picked job close to home. Picked home close to many amenities and good neighbors. Pulled all cash out of stocks before the [economic] crash [of 2008]. Paid off house. Bought an electric car three years ago. Work topics [of peak oil and climate change] into my classes regularly.

Despite emphasizing environmental sustainability in every aspect of his life, Michael agreed that “fictional portrayals of post-apocalyptic scenarios have influenced [his] image of what the post-peak period will be like,” and listed the films *Waterworld*, *The Day After Tomorrow*, *War of the Worlds*, *Children of Men* and *The Happening* as some of the (post-)apocalyptic films he’s seen. Like most peakists, he finds it difficult to bring up the issue of peak oil with others, because it is “similar to [climate change] issues—the topic is too big to bring up casually, and most conversation is casual.” Despite his immersion in the peakist virtual community, he did not consider peak oil to be a “community” or “movement” but rather a “group of unrelated individuals following their own goals.”³⁰

In the following chapters I pick up and explore the cultural, political and environmental implications of the stories told by Robert, Mary, and Michael—the difference between individualistic actions and political or collective engagement, the impact of cultural narratives (such as films) on conceptions of environmental change, and the ‘network effect’ of the Internet on its users—but first I explore in more detail the kinds of actions that were taken by other respondents. In their responses to contemporary environmental crises, Robert, Mary and Michael were not exceptions. Most peakists became more actively engaged in “planning their own future” after becoming peak oil aware, and most said that their chief priority was “protecting themselves and their family

³⁰ Respondent 9691422.

from the immediate consequences of peak oil,” rather than “educating others” or “working with others to try to avert the worst consequences.” Befitting a twenty-first century movement, most peakists—61% in my first survey, 53% in the second—had never physically met another believer. There was no correlation between real-world meetings and real-world actions, which is to say that there were lots of respondents just like Robert and Mary. For example, almost half of the 26 respondents to my first survey who had left their spouse or partner as a result of their newfound belief-system had never met another peakist. Instead of seeking out physical communities of people with similar beliefs, they sought information and fellowship through the Internet and transformed their own lives.

Immediate Changes

I divide the actions that they have taken into two categories: immediate changes and “prepping” for the post-carbon future. Immediately after converting, most believers “look for ways to use less energy and go lighter upon the land,” and the quickest way to accomplish this goal is to drive less.³¹ A California man in his early forties said he now “bicycle[s] much more,” while a Florida man “started riding [a] bicycle and walking” as a result of his “deep concern for [the futures of] my children and grand child,” cutting his hydrocarbon consumption “from 10 gals. of gas a week to 10 gals. per month on average.”³² Those who resided in cities took advantage of mass transportation, like the “progressive” Washingtonian who started “taking public transit to work,” a New York

³¹ Respondent 9566752.

³² Respondents 9565782 and 9560308.

woman who tried “to use public transit more frequently,” and a Missouri socialist who now “use[s] public transportation exclusively.”³³ Many peakists were willing to discontinue their leisure pursuits as well, such as a libertarian in his early fifties who “gave up a motorcycling hobby,” since it was “for sport and not transportation.”³⁴

More than half of all Americans are invested in the stock market in some way, and the expectation of imminent collapse led many to adjust their portfolios immediately. Some, expecting a complete collapse, pulled out of the market, such as the Colorado man in his late twenties who “bought gold” and “exited the stock market, excluding some upstream oil & gas investments.”³⁵ Some consulted the peakist investment guides published in the mid-2000s, *The Coming Economic Collapse: How You Can Thrive When Oil Costs \$200 a Barrel* and *The Oil Factor: Protect Yourself and Profit from the Coming Energy Crisis*, which predicted a bear market in the late 2000s and suggested investments in oil futures and energy companies.³⁶ A father of two in New York state began to “invest (in every sense of the word) in post-peak assets, from shovels, rakes and wheelbarrows to firewood harvesting and processing equipment to Schlumberger [a large oilfield services company] and Petrobank Energy [a Canadian oil exploration and development company],” and a North Carolina doctor began a “radical change in

³³ Respondents 9566339 and 9569635 and 9569898.

³⁴ Respondent 9573358.

³⁵ Respondent 9575122. An “upstream” investment, according to David L. Scott’s *Wall Street Words: An A to Z Guide to Investment Terms for Today’s Investor*, relates “to earnings or operations at a firm that are near or at the initial stages of producing a good or service. For example, exploration and production are upstream operations for a large integrated oil company” (Boston: Houghton Mifflin, 2010), 8.

³⁶ Stephen Leeb and Glen Strathy, *The Coming Economic Collapse: How You Can Thrive When Oil Costs \$200 a Barrel* (New York: Business Plus, 2006); Stephen Leeb and Donna Leeb, *The Oil Factor: Protect Yourself and Profit from the Coming Energy Crisis* (New York: Warner Business Books, 2005).

investment strategies (anticipate economic shocks, invest in oil, gas, gold).³⁷ (The decision to invest in oil and gas stocks is one of many areas where some peakists and more mainstream environmentalists, some of whom are organizing a campaign to ask institutions to disinvest from fossil fuels, part ways.) A number of respondents noted that these strategies had already “paid off,” due in the part to the economic recession of 2008.³⁸ For example, a Minnesota man who “randomly encountered a peak oil website” in 2005 said that he developed “a framework for planning ahead that has already yielded financial advantages over what I would have done without knowing about the oil peak.”³⁹

Their relationship to a different form of capital—debt—often changed as well. Expecting the system of global capitalism to collapse—and motivated, no doubt, by the changed circumstances of many American homeowners after the housing bubble burst—a Virginia woman “focused on paying off loans,” while a man in his late thirties took a “second job” to “get out of debt” and “save more money” so as to “purchase precious metals” that would retain their value after capitalism’s demise.⁴⁰ Others took the opposite approach, like the Colorado man who was so convinced that “the system will... collapse or reset based on lack of growth and high unemployment” that he was “not concerned with paying of any debts, especially real estate debt.”⁴¹

Most peakists immediately altered their consumption patterns as well. Acutely aware that national chains have steadily replaced local stores, which could leave them

³⁷ Respondents 9690636 and 9697749.

³⁸ Respondent 9686313.

³⁹ Respondent 9680829.

⁴⁰ Respondents 9590211 and 9569736. This is another area where peakists and conservative survivalists cross paths, of course, although few peakists seem to follow their conspiracy theories about the Federal Reserve.

⁴¹ Respondent 9575122.

with few options should the global distribution system based on inexpensive petroleum break down, many followed the model of a North Carolina man who supports “local food sourcing” as much as possible, and the Washington woman in her seventies for whom “fostering a local food supply has become a full time occupation” since she became an “urban farmer and proprietor of local food store.”⁴² A Rhode Island woman in her late sixties “joined [a] local [Community Supported Agriculture group] & cut way back on supermarket shopping,” as well as purchasing “clothing that is functional & durable rather than fashionable.”⁴³ With similar considerations in mind, a former activist in New York City said he had “acquired simple tools and household items made from strong materials that will last a long, long time instead of plastic crap made in China.”⁴⁴ Others, well aware of the ecological footprint of consumer goods manufactured with petrochemicals and shipped from far away, simply “buy less stuff in general.”⁴⁵

Energy considerations framed not only their long-term decisions, but everyday concerns as well. A young man from Nevada said, “everything that I buy I consider can I get it locally, will it be available in a limited energy economy, and should I consider an alternative.”⁴⁶ This was true even for respondents that had yet to take action, such as the Ohio man who said, “I make plans and think about what I’ll do when the collapse happens,” as well as a Wisconsin doctor who is “keeping [his] eye on the horizon, and

⁴² Respondents 9559141 and 9564383.

⁴³ Respondent 9566499.

⁴⁴ Respondent 9568832.

⁴⁵ Respondent 9570009.

⁴⁶ Respondent 9568679.

forming plans to put in place as needed.”⁴⁷ For a number of peakists, oil depletion was such a constant concern that they now drive more slowly, so as to preserve gasoline.

“Prepping” for the Post-Carbon Future

After these immediate responses, many peakists began preparing for a future that would look very different from their present. Most started by embarking on a course of study about topics they previously knew little about, like the “progressive” Colorado man whose “lifestyle is [now] patterned after educating myself... to live in a world with less oil.”⁴⁸ Towards this end, a California woman was busy “collecting books on topics I might need in a world with no power sources but human or animal,” while a “progressive” man in his fifties “started reading obsessively about agriculture and simple tech[nology].”⁴⁹ A New York City resident had “acquired many books on subjects that would be helpful for local living with fewer resources imported from outside a community—foraging, fixing tools,” and an environmental activist in her late sixties promised to “continue to educate myself and family members about what to expect and how to prepare” by “collecting a library of books and resources.”⁵⁰

A global collapse and disintegration of nation-states might require survivors to learn skills that were once common but have largely been forgotten (in the United States) as a result of labor specialization. To this end, a central element of the Transition Initiative movement is the “Great Reskilling,” a collective project to acquire the practical

⁴⁷ Respondents 9567303 and 9693509.

⁴⁸ Respondent 9573763.

⁴⁹ Respondents 9567795 and 9707269.

⁵⁰ Respondents 9568832 and 9590310.

skills that few members of Western industrial society possess.⁵¹ A young man from New Jersey who had become “peak oil aware” only a few months before taking my survey said he was “working on developing actual useful skills (woodworking, organic gardening) and ha[d] turned away from mainstream entertainment (Television, video games, etc.)” while a “progressive” Oregonian in her early thirties “decided not to go back to school and instead just focus on building a cob house [constructed with straw and clay]” and “learn everything I can about growing & preserving food on my own.”⁵² A Native American woman had already “learned new skills” such as “fruit and vegetable gardening, canning, fermenting, dehydrating, storing food,” while a middle-aged man in Santa Clara planned to go “back to basics” through the “learning of lost arts,” including “candle making, furniture building, etc. Anything that would help us learn to rely less on imports and commercially made goods and services.”⁵³ Others planned to hone their skills in trades that they expected the post-peak period to value, such as the teacher who was “leaving teaching to start a new career apprenticing” as “a traditional wooden boat builder. I hope that I can offer these skills to earn a living” and “become a valuable member of a community somewhere.”⁵⁴ As I explore in chapter 5, these efforts dovetailed with similar developments in mid-to-late 2000s, such as the “D.I.Y.” or “make” movement, and a renewed interest in Depression-era activities, such as gardening and canning, as a result of the economic recession.⁵⁵

⁵¹ See, for example, the blog Transition Culture, <http://transitionculture.org/2010/10/05/ingredients-of-transition-the-great-reskilling>. Accessed November 23, 2012.

⁵² Respondents 9562083 and 9570857.

⁵³ Respondents 9602470 and 9594065.

⁵⁴ Respondent 9576587.

⁵⁵ See Doreen Jakob, “Crafting your way out of the recession? New craft entrepreneurs and the global

When the price of electricity is low, as it has been since the 1950s, energy efficiency and distributed (local) power generation are not particularly vital concerns for most Americans. But peakists who owned their homes took on impressive construction projects that they expected to pay off when energy is at a premium. Most tried to increase their efficiency and install renewable home power generation to maximize their self-sufficiency for that day when the electricity grid becomes unreliable. A Nebraska man, for example, had “purchased solar panels” and found “alternative ways to heat my house (mainly wood stoves and fireplace enhancements). Also, I have better insulated my house, turned down the thermostat, wear sweaters inside and have heavier blankets.”⁵⁶ A “liberal” man in his thirties “added solar photovoltaic and solar thermal systems to my home,” while an architect from Colorado said he had “built a few passive solar houses, one of which I live in.”⁵⁷

For those that did not already own a home, acquiring land for a post-peak homestead was a priority. With this in mind, a New York woman in her thirties “bought an urban greenhouse with vacant land for cultivation,” an African-American man in Virginia “purchased a 190-acre farm and started a winery” and was “working to transition there full-time, with the intention of being as self-sufficient as possible,” and a

economic downturn,” *Cambridge Journal of Regions, Economy and Society* 6, no. 1: 127-140; David Brodwin, “Americans Leading a 'Do It Yourself Economy' As Washington Stalls,” *U.S. News & World Report*, August 2, 2012, <http://www.usnews.com/opinion/blogs/economic-intelligence/2012/08/02/americans-leading-a-do-it-yourself-economy-as-washington-stalls>. Accessed May 19, 2013.

⁵⁶ Respondent 9592316.

⁵⁷ Respondents 9590687 and 9684005.

Pennsylvania man “bought property” with the intention of “moving off grid.”⁵⁸ A ham radio enthusiast had “moved out to [his] land in the country” in Alabama, where he “added insulation to the house.”⁵⁹ Peakists expect that some regions and cities will be better positioned to survive the twin crises of global warming and peak oil, based on their climate and proximity to agriculture. When “gas prices spike[d] after Katrina,” a Virginia woman began to “reconsider the status quo” and eventually “moved from one state to another [because] of better climate and less dependence on automobile [*sic*],” while a believer in Queens (New York City) was “moving to [Vermont].”⁶⁰ Similar considerations motivated a man in his early fifties to relocate to rural New York: “I moved 6 years ago, researched cities with the best water quality and furthest from nuclear reactors and not on the ocean. I now own a very efficient organic farm, and have hybrid vehicles, soon to be totally electric.”⁶¹

Cheap oil enabled suburban spatial development in the post-WWII period, and gasoline is still inexpensive enough in 2013 (despite an increase of over 300% since 1998) for most Americans to live comfortably in the suburbs.⁶² Peakists believe this will soon cease to be the case, and American life will become local once again. A North Carolina man in his late twenties reported that his “family moved to a more traditional ‘walkable community,’ where we can walk or ride bikes to local stores, parks, etc,” while

⁵⁸ Respondents 9568487, 9590578 and 9591555. This respondent was one of only a handful of (self-identified) peakists of color to take my surveys. In Chapter 5, I discuss the racial dynamics of peakism in some detail.

⁵⁹ Respondent 9563196.

⁶⁰ Respondents 9564499 and 9590983.

⁶¹ Respondent 9562254.

⁶² U.S. Energy Information Administration, “Gasoline and Diesel Fuel Update,” <http://www.eia.gov/petroleum/gasdiesel>. Accessed May 19, 2013.

a California man in his late sixties, who had “been engaged in social activism since [his] college days (e.g., Vietnam war),” was “actively planning to migrate to [a] small town” where there would be no “need for long commutes by car” and the “impacts of climate change might be less.”⁶³ Other respondents relocated for fear of losing touch with their loved ones when air travel becomes prohibitively expensive. An anarchist related that “at the time I became peak oil aware, I was living thousands of miles away from where I grew up and where most of my family was residing... I sold my house (sale finalized about 20 months after I became peak oil aware) and moved back to my native state to be nearer to family and friends I had grown up with.”⁶⁴

Others even sought a lower-energy life abroad. After researching “peak everything,” a scientist in his forties decided to “move from California back to France to be in a more stable place, with better public transportation.”⁶⁵ A recent emigrant, who considered most Americans “deeply ignorant and poorly educated” about “understanding energy from all levels... physics, biology, systems dynamics, economics” learned about peak oil on the Internet in 2003, began to “study economics, which led to [the] topic of [a] housing crisis looming in the future, which led us to sell our house and apartment, rent, then move abroad to a city” in Denmark, “where we dont [*sic*] need a car” and enjoy a “more sustainable, lower-energy life-style.”⁶⁶

The vast majority of respondents did not expatriate, but they tried to develop as much self-sufficiency as possible. For many, this included engaging in practices that

⁶³ Respondents 9563747 and 9548945.

⁶⁴ Respondent 9589676.

⁶⁵ Respondent 9686974.

⁶⁶ Respondent 9604039.

they associated with right-wing survivalists, such as stockpiling goods and even arming themselves. Most peak oil believers, like a Virginia lawyer, were quick to note that they were not “survivalists,” since this “implies the hermit in the woods,” whereas “an appropriate response” to peak oil and climate change is “simply a return to local agriculture, work/home proximity, closer communities [without a] dependence on things distant.”⁶⁷ Nonetheless, 72% of my respondents stockpiled supplies. The Federal Emergency Management Agency recommends that all citizens store at least three days of canned food and water, but most peakists prepared for a much longer crisis. A woman in her sixties reported having stockpiled “food, fuel, survival necessities and tools,” while a Georgia man began “stockpiling food and water” after reading James Howard Kunstler’s *The Long Emergency*.⁶⁸ A Pennsylvanian became so concerned about the future that in 2010 he began “trying to stock pile text books so our history and knowledge isn't lost” after the collapse.⁶⁹ Given the tradition of non-violence among liberals and leftists, guns and ammunition were a source of concern for many peakists, since their left-liberal beliefs clashed with their desire for personal preparedness. A “liberal” Washington woman, for example, planned “to buy and learn how to use weapons, which we have never before felt the need to do, & which in & of itself is hugely depressing.”⁷⁰ Many liberal “preppers” refused to purchase weapons as a matter of principle, like the Arkansas

⁶⁷ Respondent 9566200.

⁶⁸ While we now tend to associate stockpiling supplies with right-wing survivalists, it has a longer history in the United States, such as bomb shelters constructed during the Cold War. Most recent scholarship on the subject identifies the primary benefits of such actions as psychological, which many peakists would not deny. Individualistic stockpiling is to be differentiated from the more collective tradition of national “preparedness.”

⁶⁹ Respondent 9590181.

⁷⁰ Respondent 9695655.

man who had “installed [a] wood stove, bought [a] greenhouse” and “dug up back yard and built garden beds” but insisted, “I have no guns and am ready to help neighbors in my small town.”⁷¹



Fig. 1.2. Sandpoint Transition Initiative co-founder Richard Kuhnel working in his garden in Sandpoint, Idaho. Source: Author.

While a few respondents endeavored to enjoy what they expected to be the last gasps of the age of oil—one Floridian was “learn[ing] to enjoy hydrocarbons while we have them,” while a Latino man in his thirties took “long driving tours of the US because I know the driving era will soon end”—most were attempting to ease the inevitable transition by modeling post-collapse life in the here and now.⁷² Although

⁷¹ Respondent 9569428.

⁷² Respondents 9565782 and 9576666.

many peakists had previously gardened as a hobby, they now expanded their operations. A Maryland woman in her fifties was “improving [her] soil,” an Oregon woman was “keeping chickens,” and a Georgia woman said she “now grow[s] two-thirds of my vegetables.”⁷³ A California man who had attended the first Association for the Study of Peak Oil (ASPO) conference in 2004 had constructed a “self-sufficient homestead,” while a former aeronautics engineer was working on improving his farm, “not so much for me... but to give my daughters the possibility of a bit longer life span after” the coming collapse.⁷⁴

The Peakist Subculture

The vast majority of these actions were pursued individually—changes in driving and consumption patterns, farming or gardening, and increased energy-efficiency in transportation and housing. While comparatively few believers made concerted efforts to form real-world communities or engaged in political actions, many focused their energies on erecting an impressive virtual community. Online, they collectively constructed an extensive subculture of peakist films, videos, YouTube channels, podcasts, blogs, songs, poems, cartoons, short stories, novels and non-fiction books. While the potentially wide-reaching implications of oil depletion have been the subject of dozens of recent scholarly articles from fields as diverse as public health, tourism management and urban studies, the labyrinthine subculture of peakists has been overlooked.⁷⁵ The Internet enables the

⁷³ Respondents 9559965, 9569854 and 9567071.

⁷⁴ Respondents 9558720 and 9561951.

⁷⁵ P. Hanlon and G. McCartney, “Peak Oil: Will It Be Public Health’s Greatest Challenge?” *Public Health* 122, no. 7: 647-652; Susan Becken, “Developing indicators for managing tourism in the face of peak oil,”

easy creation of subcultures and subcultural identities, but can often obscure the extent to which these identities are psychologically or emotionally meaningful, or expressed in the “real” (offline) world.⁷⁶ The facility of conducting discourse analysis of websites can lead, on one hand, to exaggerated claims about the significance of online trends, but the physical invisibility of meaningful virtual communities can also lead scholars and commentators to underreport the popularity and significance of these phenomena.⁷⁷ Many peakists have primarily focused their energies on websites, blogs, and online forums, but in the twenty-first century United States these are crucial sites for the formation of identities and the creation of community.

As I discuss in chapter 3, the movement’s reliance on the Internet as its communicative medium led it to mirror the architecture of the network itself, but even decentralized, leaderless groups select influential tastemakers. Well-known authors, bloggers and website moderators played a crucial role in popularizing the peakist ideology and shaping its vision of the future. They have much in common with their fans and readers, and their biographies speak to the motivations, concerns, and contradictions of this community. As a window into the formation of this primarily virtual community, I profile two popular and influential figures, peak oil evangelist James Howard Kunstler and “Peak Shrink” Kathy McMahon.

Tourism Management 29, no. 4: 695-705; Peter Newman, “Beyond Peak Oil: Will Our Cities Collapse?” *Journal of Urban Technology* 14, no. 2: 15-30.

⁷⁶ Brian Wilson, “Ethnography, the Internet, and Youth Culture: Strategies for Examining Social Resistance and ‘Online-Offline’ Relationships,” *Canadian Journal of Education* 29, no. 1 (2006): 307-328; Paul Tranter and Scott Sharpe, “Children and Peak Oil: An Opportunity in Crisis,” *International Journal of Children’s Rights* 15, no. 1 (2007): 181-197.

⁷⁷ Marc A. Smith, “Invisible Crowds in Cyberspace: Mapping the Social Structure of the Usenet,” in Marc A. Smith and Peter Kollock, eds., *Communities in Cyberspace* (New York: Routledge, 1999).

The Peak Oil Evangelist: James Howard Kunstler

James Howard Kunstler is the most widely known and influential peak oil author. In 2007, he appeared at Magers & Quinn bookstore in Minneapolis, Minnesota, to promote his nonfiction book, *The Long Emergency: Surviving the Converging Catastrophes of the Twenty-first Century*. Approximately thirty people sat in the back of the store in gray plastic chairs, muttering excitedly in hushed voices, while another fifteen stood behind them. From snippets of overheard conversations, it was clear that most were already familiar with Kunstler's ideas from his books, blog, or appearances in documentary films. A barrel-chested man in his late fifties with thinning brown hair, a thin moustache and a mischievous smile, Kunstler was dressed comfortably in blue jeans and a button-down shirt. He was an energetic speaker, pacing back and forth, opinionated and sarcastic. He summarized the argument presented in *The Long Emergency*: as a result of peak oil and climate change, the United States and the world will shortly enter a "long emergency" that will constitute the collapse of the world as we know it. Survivors will experience conditions slightly better than they were in eighteenth century North America. During the question-and-answer session, a slender man in his twenties stepped forward from the crowd with a hopeful question: "Do you have any advice for young people who will live most of their lives in the long emergency?" Kunstler paused for a moment and responded, without expression, "No." As the crowd filed out, there was the electricity of a brief brush with celebrity, and very little evident disappointment or dejection.

Like many peakists, Kunstler is a baby boomer, born in New York City in 1948.

He graduated from the State University of New York at Brockport, where he was a journalist, theater major and student government president. After college, he worked for a number of local or regional newspapers, such as Albany's *Knickerbocker News*, and was a staff writer for *Rolling Stone* in the early 1970s. In 1975, Kunstler became a full-time author, publishing seven moderately successful novels between 1979 and 1989. In the late 1980s, he penned a number of articles for *The New York Times* on environmentalism and urban development in the Northeast. His first non-fiction book, *The Geography of Nowhere: The Rise and Decline of America's Man-Made Landscape*, was published in 1993 and established Kunstler as an authority on American suburbia. It presented a critical history of suburbanization, not dissimilar from Kenneth T. Jackson's *Crabgrass Frontier*, alongside a Jane Jacobs model of urban neighborhoods as healthy communities, with special attention to the built environment.⁷⁸ *The Geography of Nowhere* was popular enough to be reviewed widely in national media and local newspapers. A typical review, from *The Washington Post*, noted that although "nothing that he says is really new," Kunstler "has a nice gift for invective and a well-developed sense of outrage."⁷⁹ Despite having no formal training in architecture or related fields, Kunstler became known as one of the leading proponents of the architectural design movement New Urbanism. In 1998 he spoke at the annual meeting of the American

⁷⁸ James Howard Kunstler, *Geography of Nowhere: The Rise and Decline of America's Man-Made Landscape* (New York: Free Press, 1993). Kenneth T. Jackson, *Crabgrass Frontier: The Suburbanization of the United States* (New York: Oxford University Press, 1985). Jane Jacobs, *The Death and Life of Great American Cities* (New York: Random House, 1961).

⁷⁹ Jonathan Yardley, "All Built out of Ticky-Tacky," *The Washington Post*, May 30, 1993, X03.

Institute of Architects, and, according to *The Chronicle of Higher Education, Geography of Nowhere* became “standard reading in architecture and urban planning courses.”⁸⁰

In early 2001 Kunstler started a blog, “Clusterfuck Nation,” and in the wake of the September 11th attacks he began focusing on energy depletion, oil politics, and then the wars in Afghanistan and Iraq. His career took another unpredictable turn in 2005, when he published *The Long Emergency*, which was read by over seventy percent of my respondents. It shared a number of elements with other peak oil nonfiction books, delivered with Kunstler’s sweeping scale and caustic wit—a history of oil production, a description of the centrality of petroleum to our daily lives and its role in modern geopolitics (including the Iraq war), and an unequivocal dismissal of the potential of alternative fuels.⁸¹ However, it stood alone in its far-reaching predictions of the social, economic, and political consequences of the expected crisis.⁸² In the long history of apocalyptic literature in the United States, it most closely resembles *The Late, Great Planet Earth*, Hal Lindsey’s 1970 best-seller, which interpreted the Bible in the context of Cold War geopolitics. In the same way, Kunstler dramatizes peakist ideology into an apocalyptic declension narrative. His vivid imagination struck a chord—thousands of devoted readers echoed the sentiment of a member of the website Peak Oil News &

⁸⁰ Scott Carlson, “A Social Critic Warns of Upheavals to Come,” *The Chronicle of Higher Education*, October 20, 2006. Available at: <http://chronicle.com/article/A-Social-Critic-Warns-of/15941>. Accessed December 15, 2012.

⁸¹ Similar works include Roberts, *The End of Oil: On the Edge of a Perilous New World*; Colin Campbell, *The Coming Oil Crisis* (Essex, UK: Multi-Science Publishing Co. Ltd., 2004); David Goodstein, *Out of Gas: The End of the Age of Oil* (New York: Norton, 2005).

⁸² Kunstler, 17.

Message Boards, who wrote, “I read his book in two or three sittings. I couldn’t put it down.”⁸³

The “long emergency” is Kunstler’s term for the drawn-out collapse of the modern world—which has already begun. Like most peakists, he believes that without cheap and plentiful oil, the twenty-first century world will grind to a halt. American suburbs, dependent on automobility, will become isolated and uninhabitable. Cities such as New York and Chicago, without easy access to local farming, will be abandoned. Food will have to be grown locally, since the cost of transport (via trucks, planes or ships) will rise, and billions will starve without the petroleum-derived pesticides and fertilizer that enable modern agricultural yields. Competition for remaining resources will cause global wars, and immigrants from poorer nations will overrun wealthier nations. As economies stagnate, jobs disappear and unrest grows, elites will attempt to hold power by force. Electricity will become scarce. The United States will eventually crumble, with only the Northeast resembling the contemporary U.S., while Mexican nationals retake the Southwest, and Western states, overly reliant on cars and air conditioning, are abandoned. The Northwest will have more complicated problems, since it will “be especially vulnerable to raids emanating from the disintegrating nations of Asia.”⁸⁴ For those that remain, every aspect of life will be very different, “increasingly and intensely local and smaller in scale.” The world will return to a “dark age” as high schools and colleges close and children are put to work. Survivors will see a rise in

⁸³ Hal Lindsay, *The Late, Great Planet Earth* (New York: Zondervan, 1970). “The Long Emergency...: James Howard Kunstler,” Peak Oil News, <http://peakoil.com/forums/post99674.html>. Accessed July 1, 2011.

⁸⁴ Kunstler, 254, 99.

religious fundamentalism and a return to religious authority; indentured servitude and even slavery and may return to the United States.⁸⁵ Although Kunstler maintained that “just because I say a particular unpleasant thing may happen doesn’t mean I want it to happen, or that I endorse its happening,” critics accused him of wishing for collapse.⁸⁶ As a reviewer from Fort Wayne’s *Journal-Gazette* put it, “Kunstler takes a curmudgeon’s delight in ticking off the many extravagances humanity will have to do without in the years ahead.”⁸⁷

His popular blog was cut from this same cloth. “Clusterfuck Nation” is a freewheeling weekly commentary on American politics, economics, architecture, suburbia, energy and culture, which the *New Yorker* described as “a sustained critique of the cheerful globalism championed by Thomas Friedman.”⁸⁸ In 2005, the *New York Times* also took note, informing its readers that Kunstler had “taken to the Web in a big way” and “moved beyond slash-and-burn suburbia to take on economics and global commerce.”⁸⁹ The titles of his posts, such as “The Creeping Nausea of American Exceptionalism,” “Where Have We Been? Where Are We Going?” and “The First Die-Off,” give a sense of his dramatic vision. Despite its dark tone, the site is remarkably popular. In 2008 alone, there were 2.5 million unique visitors, with over 80% located in the United States. In 2006, “Clusterfuck Nation” had an average of 80,000 visitors a month; 100,000 in 2007; 175,000 in 2008; and a peak of over 300,000 in September 2008

⁸⁵ Kunstler, 239, 303 and 274.

⁸⁶ Kunstler, 238.

⁸⁷ Mark Hertsgaard, “Oil supply facts, forecasts provide fuel for thought,” *Journal-Gazette*, Fort Wayne, September 11, 2005, 17.

⁸⁸ Ben McGrath, “The Dystopians: Bad Times Are Boom Times for Some,” *New Yorker*, January 26, 2009.

⁸⁹ Dan Mitchel, “The World According to Kunstler,” *New York Times*, July 30, 2005, 5.

alone. Almost half of them were categorized as “returning visitors,” who might have arrived at www.kunstler.com out of curiosity but returned within the month.⁹⁰

“Clusterfuck Nation” was also syndicated on “Peak Oil News” as well as “Energy Bulletin,” a news aggregate site maintained by the Post Carbon Institute.⁹¹

In addition to his impressive web presence—a Google search for “James Howard Kunstler” and “peak oil” in December of 2011 returned approximately 286,000 web pages—Kunstler was busy in the real world.⁹² He regularly lectured around the country and appeared in a number of peak oil documentary films, such *The End of Suburbia* (2005), *Radiant City* (2007) and *Escape from Suburbia* (2007). In each, he played the role of the TV historian to a tee, paraphrasing decades of history into provocative sound bites. His academic reputation made Kunstler a frequent spokesperson on peak oil in mainstream news articles, but he was also active within the peakist subculture. For example, Kunstler participated in a four-part interview with performance artist Kris Can, on her video blog and YouTube channel, “Peak Oil Action and Adventure.”

Detour: ASPO’s 2009 International Peak Oil Conference, Denver, Colorado

Can, like “Oily Cassandra,” attempted to use sex appeal to attract viewers and then educate them about energy scarcity. Her signature, sepia-toned video, “Public Service Message,” featured an apparently naked Can swaying behind two oil cans while

⁹⁰ Data provided by “StatCounter,” via a link on Kunstler.com, <http://beta.statcounter.com/p1456112/summary/>. Accessed July 22, 2011.

⁹¹ “Start here | Energy Bulletin,” <http://www.energybulletin.net/start>. Accessed July 22, 2011.

⁹² Google search for “James Howard Kunstler” and “peak oil,” <http://www.google.com/search?client=safari&rls=en&q=“James+Howard+Kunstler”+and+“peak+oil”&ie=UTF-8&oe=UTF-8>. Accessed December 7, 2011.

she delivers a raspy monologue on oil depletion.⁹³ I learned about this interview at the sixth annual Association for the Study of Peak Oil (ASPO) International conference in Denver in October 2009, where over a thousand people gathered for three days of workshops and panels about peak oil and climate change. ASPO, which formed and began annual conferences in 2002, describes itself as a “network of scientists and others, having an interest in determining the date and impact of the peak and decline of the world’s production of oil and gas.”⁹⁴ There are ASPO chapters in 23 countries, including the United States. Although his opinionated speculation was anathema to ASPO’s scientific, disinterested tone, Kunstler was a regular speaker.

His jeremiads exerted an influence despite his absence that year. Asher Miller, former director of the Post Carbon Institute (“leading the transition to a more resilient, equitable, and sustainable world”), told me that he first learned about peak oil after picking up *The Long Emergency*.⁹⁵ Brian, a 32-year old electrical engineer, who attended the conference because he thought that with rising fuel prices “it might be the last opportunity to fly” anywhere, said his vision of the future was “Kunstler-esque.”⁹⁶ Held in the Sheraton Hotel, the ASPO gathering had the buttoned-down professional atmosphere of a business conference, but a spirit of camaraderie was also evident. Bill Fickas, a 47-year old libertarian computer programmer who framed his future in terms of Kunstler’s work (“it could go *World Made By Hand*”), said that part of the draw of peakist conferences was the sense of community created by face-to-face meetings:

⁹³ Kris Can, “Public Service Message,” <http://www.kriscan.com/2008/04/16/public-service-message/>. Accessed July 22, 2011.

⁹⁴ ASPO International, <http://www.peakoil.net/>. Accessed July 22, 2011.

⁹⁵ Post Carbon Institute, <http://www.postcarbon.org>. Accessed December 15, 2012.

⁹⁶ Interviews with Asher Miller and Brian, Denver, CO, October 12, 2009.

It helps to find other people who share the opinion, and it is a positive thing coming to things like this. Just being able to see that there are other people out there on the Internet is great, but to actually be in a room that if you talked about this don't think that you're a nutbar, it certainly helps.⁹⁷

Some attendees literally wore their ideology on their clothes. Steve Allen, for example, sported a T-shirt with a graphic depicting the Malthusian “Olduvai theory” (below), which holds that industrial civilization will endure for only one hundred years, to be followed by a “post-industrial stone age.” Like other subcultures, peakists expressed and advertised their identities through commercially produced and distributed goods. Next to us, Smiley Oil, a conference sponsor, was busy demonstrating its educational peak oil video game, Energy Worlds. Its logo was sinister but somehow appropriate to its referent, a cartoonish drop of black gold with a white Cheshire grin. A young woman sold ASPO mugs alongside shirts that proclaimed “I ♥ Peak Oil,” and a much wider variety of items could be found online, including bumper stickers, flags, and baby bibs.⁹⁸

⁹⁷ Interview with Bill Fickas, Denver, Colorado, October 11, 2009.

⁹⁸ See, for example, the “Peak Oil Gifts” page on “Café Press,” <http://www.cafepress.com/+peak-oil+gifts>. Accessed February 5, 2013.

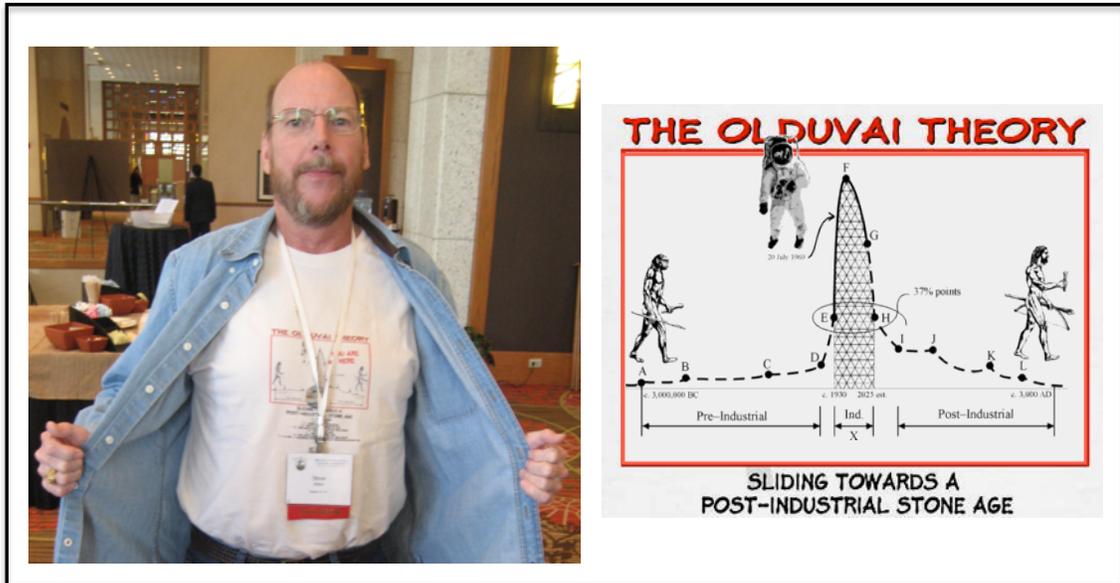


Fig. 1.3: Left: Steve Allen, a participant in the 2009 Association for the Study of Peak Oil International conference at the Sheraton Hotel, in Denver, Colorado. Source: Author. Right: a detail of Allen’s T-shirt, which combines a graph of global oil production over thousands of years, with figures from the classic ‘march of progress’ illustration to predict a “post-industrial stone age.”

Outside the Sheraton, a local oil company thought the conference enough of a threat to the status quo that it waged a small-scale public relations battle. Aspect Energy, LLC paid two men to dress in chicken costumes and pass out leaflets outside the hotel. They began,

My oil industry colleagues and I have been fielding lots of questions recently from Chicken Littles worried that petroleum is running out. After I calmed some of them down, they volunteered to hand out a little bit of additional information to anyone who seemed to be casting one worried eye on the sky.⁹⁹

The documents listed three “Overlooked Remarkable Facts” about seemingly unlimited petroleum reserves and reprinted a recent *New York Times* op-ed piece, “‘Peak Oil’ Is a

⁹⁹ “Oil Production: Is the Sky Falling?” Aspect Energy, LLC, 1775 Sherman St, Denver, CO 80203.

Waste of Energy.”¹⁰⁰ Hopeful conference-goers interpreted the street theater as a sign that perhaps their message was finally being heard.

The Peak Shrink: Kathy McMahon

Those peakists whose relationships suffered because they thought “the sky was falling” might have been well-advised to read Kathy McMahon’s 2011 book, *‘I Can’t Believe You Actually Think That!’ A Couple’s Guide to Finding Common Ground about Peak Oil, Climate Catastrophe, and Economic Hard Times*.¹⁰¹ McMahon is the “Peak Shrink,” a practicing psychotherapist, psychology professor, and author of the blog “Peak Oil Blues.” She began blogging in May 2006 with a candid declaration that she could no longer square her belief in peak oil with her expected professional perspective: “My actions seemed ‘irrational’ to the pre-Peak Oil mental health professional in me, and looked ‘crazy’ to those who were unaware, disinterested, or rejected the concept of [peak oil].”¹⁰² While most sites in the mid-2000s were engaged in debates about the timing and fallout of peak oil, “Peak Oil Blues” carved out its niche by examining the emotional and psychological effects of peak oil and climate change awareness. It was so successful that in 2010 McMahon formed a commercial website (The Feisty Life) offering one-on-one counseling sessions online.¹⁰³

¹⁰⁰ Michael Lynch, “‘Peak Oil’ is a Waste of Energy,” *New York Times*, August 24, 2009, A21.

¹⁰¹ Kathy McMahon, *‘I Can’t Believe You Actually Think That!’ A Couple’s Guide to Finding Common Ground about Peak Oil, Climate Catastrophe, and Economic Hard Times* (Self-published, 2011).

¹⁰² “Being Help and Needing Help,” Peak Oil Blues, <http://www.peakoilblues.org/blog/?p=1>. Accessed November 9, 2011.

¹⁰³ The Feisty Life, <http://www.thefeistylife.com>. Accessed March 3, 2012. [This venture has since been changed to “Berkshires Couples Counseling,” <http://www.berkshirecouplescounseling.com>. Accessed May 19, 2013.]

Although “Peak Oil Blues” was not as popular as “Clusterfuck Nation,” it was far from an isolated outpost in the peakist constellation. Other blogs, such as “Powering Down: A Journey of Preparation,” “Dark Optimism: A Better Future for a Troubled World,” and “Failing Gracefully: Finding Resilience in Uncertain Times” dedicated posts to praising “Peak Oil Blues.”¹⁰⁴ McMahon appeared on several peakist or survivalist podcasts, such as “Extraenvironmentalist,” “Public Service Broadcasting for the Post Carbon World,” and “The Radio Ecoshock Show,” and was featured on peakist YouTube channels, such as the “Women & Peak Oil” episode of “Gasoline Gangsters.”¹⁰⁵ Her videos were regularly posted on “Peak Oil News & Message Boards,” where they provoked lengthy debates. Like Kunstler, McMahon’s online readers turned out to see her speak in person—the theme of her 2010 tour was “How to Stay Sane as the World Goes Crazy.”

The majority of “Peak Oil Blues” posts followed a “Dear Abby” style in which the Peak Shrink answers questions posed by regular readers with pseudonyms such as “Homesteader in Paradise,” “Off-Grid Girl,” and “Preparing to Persevere.” The tone was informal, empathetic and warm, McMahon more likely to playfully speculate on the difficulty of finding the “ideal peak oil mate” than fulminate against excessive energy

¹⁰⁴ “The Peak Oil Blues,” July 26, 2006, “Powering Down: A Journey of Preparation,” <http://poweringdown.blogspot.com/2006/07/peak-oil-blues.html>. “Peak Oil Links,” “Dark Optimism: A Better Future for a Troubled World,” <http://www.darkoptimism.org/links.html>. “Peak Oil Blues,” February 21, 2010, “Failing Gracefully: Finding Resilience in Uncertain Times,” <http://failinggracefully.com/?p=1370>. All accessed July 26, 2011.

¹⁰⁵ “Episode 6: Peak Oil Blues,” “The Extraenvironmentalist,” <http://www.extraenvironmentalist.com/episode-6-peak-oil-blues/>. “Reality Report: Peak Oil Blues,” “Global Public Media: Public Service Broadcasting for a Post Carbon World,” December 18, 2006. “Peak Oil Vs. ‘Pathological Optimism,’” October 27, 2010, <http://www.ecoshock.info/2010/10/peak-oil-vs-pathological-optimism.html>. “Gasoline Gangsters Episode 6: Women & Peak Oil,” http://www.youtube.com/watch?v=FQcK-5IE_SE. All accessed July 26, 2011.

consumption.¹⁰⁶ The exact number of her regular readers is not available, but the figures from 2011 suggest it was at least in the tens of thousands.¹⁰⁷ In their letters, they complained of the depression and even suicidal thoughts that resulted from peak oil awareness. “Grim Newlywed,” for example, wrote, “I sometimes have moments of terror when I get an intimation of what things will be like when it actually starts to unravel full throttle...it makes me wonder how I could kill myself, rather than suffer things I can’t even imagine.”¹⁰⁸ The comfort that they found in her website is attested to in letters and comments by devoted readers such as “Stray Kitty,” who asked in July of 2008, “How many times have I searched the web trying to find comfort for my anxiety about the future and preparedness? Then I found this site.” Another wrote, “What you are attempting to do here, by allowing me and others to vent our deepest fears, is nothing more than a form of liberation. I can only hope that others are lucky enough to be directed here or like me stumble blindly until they find some kind of light.”¹⁰⁹

The Peak Shrink grew up in Boston, the daughter of a firefighter and third of five children, and still carries her New England accent. After raising two children of her own and earning a doctorate in clinical psychology from Antioch University, she served as the Director of the Master’s Program in Counseling Psychology at her alma mater. Even as she assumed her online persona in the late 2000s, she taught in graduate psychology

¹⁰⁶ “Peak Oil Dating: What is an ‘Ideal Peak Oil Mate?’” Peak Oil Blues, <http://www.peakoilblues.org/blog/?tag=ideal-peak-oil-mate>. Accessed October 27, 2011.

¹⁰⁷ From March to October 2011, for example, there were over 32,000 unique visitors. Peak Oil Blues, <http://www.peakoilblues.org>. Accessed October 29, 2012.

¹⁰⁸ “Grim Newlywed Sees Scary Future for Those He Loves,” Peak Oil Blues, <http://www.peakoilblues.org/blog/?p=1679>. Accessed December 3, 2012.

¹⁰⁹ “Hey, What Do People Say About... Dr K?” Peak Oil Blues, <http://www.feistylife.com/hey-what-do-people-say-about-dr-k/>. Accessed November 9, 2011.

programs and remained a licensed psychologist specializing in couples therapy. Before “learning about Peak Oil,” she said, “I saw the world through the eyes of a middle-class US citizen” who believed that “electricity came from light switches.”¹¹⁰ She described her conversion in the same quasi-religious terms that many peakists use:

Then I learned about Peak Oil. After that, I could no longer see the world in the same way. I realized that psychotherapy, while helpful to people in a ‘normal’ world, could easily become destructive to those with a PO view of the world. . . . I was trying to come to grips with a future cultural transformation that was to be so dramatic, so overwhelming, it disturbed my equilibrium and challenged my very sense of reality.¹¹¹

While her psychological perspective, professional credentials, and lively writing style were part of the Peak Shrink’s appeal to her readers, she also served as a model of healthy awareness, engagement and action. Unlike some of them, who were “living a double life” by keeping “the big secret” of peak oil from their friends and family, or were too “paralyzed with fear” to take action, McMahan was psychologically well-adjusted and well-prepared for the future.¹¹² From her frequent anecdotes, she seemed to have fashioned a rural life for herself that the woebegone survivors in Kunstler’s *The Long Emergency* would recognize and envy, tending a large garden and raising chickens. Having moved in 1999 to find “more room for my dogs and a less expensive plot of

¹¹⁰ Personal correspondence from Kathy McMahan. November 18, 2009.

¹¹¹ “Being Help and Needing Help,” Peak Oil Blues, <http://www.peakoilblues.org/blog/?p=1>. Accessed October 27, 2011.

¹¹² Direct quotations from Peak Oil Shrink readers. “Stages of Peak Oil Awareness,” Peak Oil Blues, <http://www.peakoilblues.org/blog/?p=2381>. Accessed October 27, 2011.

land,” McMahon and her husband lived in a small town in rural Massachusetts, where, as she put it, “people cut hay with a scythe, and build homes without power tools.”¹¹³

The Peak Shrink provided more than a model of peak psychological robustness and advice about discussing “the peak” with family members. She formulated an alternative profile of psychological health, where concerns about environmental crisis and preparation for the collapse of modern society are not a symptom of emotional instability or mental illness but a sign of lucidity and health.¹¹⁴ This through-the-looking-glass psychology was elucidated in her most popular post, “Do You Have a Panglossian Disorder? Or Economic and Planetary Collapse: Is it a Therapeutic Issue?” The “Panglossian disorder,” named after the delusionally optimistic Dr. Pangloss in Voltaire’s *Candide*, was defined as “the neurotic tendency toward extreme optimism in the face of likely cultural and planetary collapse.” McMahon pathologized ‘normal’ responses and divided them into fifteen common subtypes, including “rigid Cheneyism (‘The American Way of Life is non-negotiable’),” “Neoliberal Economianic Tendencies (‘A belief that market forces control all—including geological realities’),” and “Nascarian Feature” (“People love their automobiles” so “a solution will *have* to be found to keep us driving”). The post struck a chord with her readers, who responded by saying, “Beautiful

¹¹³ Personal correspondence from Kathy McMahon, November 18, 2009.

¹¹⁴ Ecopsychology—psychology and psychotherapy that addresses the physical and psychological influence of environmental degradation—is a growing field. See, for example, Andy Fisher, *Radical Ecopsychology: Psychology in the Service of Life* (Albany: SUNY Press, 2002) and Theodore Roszak, Mary E. Gomes, Allen D. Kanner, eds., *Ecopsychology: Restoring the Earth, Healing the Mind* (San Francisco: Sierra Club Books, 1995).

article, simply beautiful,” and “thank you for writing this. It puts my isolated world in perspective.”¹¹⁵

Ecological Identity and Social Marginalization

McMahon’s alternative psychology is one perspective from which we might view the experience that united almost all survey respondents: a painful social marginalization stemming from their ecological identity. While peakists define themselves according to their environmental beliefs, they are also shaped by social forces such as the responses of their friends, family, and co-workers to their ideology. While most scientists agree that we are living in an age of environmental crisis—with widespread environmental toxification and runaway ocean acidification, deforestation, loss of biodiversity, and climate change—Americans whose concern over environmental issues leads them radically change their lives in a proportionate response—by going beyond green consumerism to bicycle more, drive less, refuse to fly, move to walkable cities and alter their homes—are more likely to be considered “crazy” “survival nuts,” “hippies,” “whackjobs,” “tree-huggers,” “kooks,” and “crackpots,” to borrow a few terms from my respondents, than responsible citizens. Peakists contended that *not* being emotionally and/or psychologically disturbed by contemporary environmental crises was itself the sign of a kind of mental illness, not the melancholy they experienced after becoming

¹¹⁵ “Do You Have a Panglossian Disorder? or Economic and Planetary Collapse: Is it a Therapeutic Issue?” Peak Oil Blues <http://www.peakoilblues.org/blog/?p=132>. Accessed November 27, 2012. One of the Peak Shrink’s readers even turned the neologism into a song. “Panglossian,” performed “to the tune of Alone Again by Henry Phillips,” was part of Michael Nabert’s “Sustainability the Musical!” which was performed at the 2011 Hamilton (Ontario) Fringe Festival, and is available online as an audio file. “Sustainability the Musical,” http://www.yourgreenfeat.com/Green_Feat/Musical.html. Accessed December 1, 2011.

“peak oil aware.” As a Vermont woman put it, “Who wouldn't be depressed with climate change, mass extinctions, suburban sprawl, factory farms, [genetically modified organisms in our food], etc.? You'd have to be nuts to feel otherwise.”¹¹⁶ With these inverted, conflicting psychological perspectives in mind, let us explore some of the common reactions that American peak oil believers elicited from their friends, family, and co-workers, so as to further differentiate peakism from normative American thinking in the early twenty-first century.

Given their passion and the gravity of their concerns, two out of three peakists found it difficult to discuss their environmental beliefs with other people. The responses that they received from their friends, family, and co-workers explain why. A Rhode Island woman noted that “the topic can engender disbelief [*sic*] and hostility,” while a New York man said, “I have often encountered verbal abuse if I press the issue (and I do not phrase my explanations about peak oil as an end-of-the-world phenomena). It's like I am attacking their entire way of life and their very personhood.” A Colorado woman confessed that “the reactions from people make it hard to discuss. I have an old friend that is now barely speaking to me because I discussed this with her,” and a New Hampshire man joked that it was “not difficult to talk about,” but “so difficult to watch their eyes glaze over and imaginations go catatonic.”¹¹⁷

Without hearing the other side of these conversations we have a limited perspective on them, of course, but one frequently cited explanation for this common reaction was the prevalence of optimism in the United States. As scholars from a range

¹¹⁶ Respondent 9592026.

¹¹⁷ Respondents 9574456, 9566499, 9591372 and 9562162.

of fields have demonstrated, the United States developed in the twentieth century a powerful culture of optimism, which C. Vann Woodward once called a “national philosophy in America.”¹¹⁸ Social scientists such as Neil D. Weinstein have shown that optimistic biases are much more common than pessimistic biases in the United States, and numerous cross-cultural studies have corroborated Americans’ tendency towards optimism.¹¹⁹

In *Bright-Sided: How Positive Thinking is Undermining America*, Barbara Ehrenreich observed that “the injunction to be positive is so ubiquitous that it’s impossible to identify a single source,” but cited Dale Carnegie’s descendants in the motivation industry as well as the immense influence of positive psychology.¹²⁰ The cultural bias against negative thinking is even written into diagnostic psychology manuals, as sociologist Karen A. Cerulo has observed: “People who routinely focus on the worst-case scenario, those who cannot seem to sustain any real optimism, will likely be diagnosed with dysthymic disorder (commonly known as depression).”¹²¹ A peakist in her early forties reversed this diagnosis, wondering whether “there is [a] collective

¹¹⁸ C. Vann Woodward, “The Age of Reinterpretation,” *American Historical Review* 66, no. 1 (1960), 3.

¹¹⁹ Neil D. Weinstein, “Optimistic Biases About Personal Risks,” *Science* 246, no. 4935: 1232-1233. See also Ahmed Abdel-Khalek and David Lester, “Optimism and Pessimism in Kuwaiti and American College Students,” *International Journal of Social Psychiatry* 52, no. 2: 110-126; Edward C. Chang, Kiyoshi Asakawa, Lawrence J. Sanna, “Cultural variations in optimistic and pessimistic bias: Do Easterners really expect the worst and Westerners really expect the best when predicting future life events?” *Journal of Personality and Social Psychology* 81, no. 3 (2001): 476-491; and Yueh-Ting Lee and Martin E. P. Seligman, “Are Americans more optimistic than the Chinese?” *Personality and Social Psychology Bulletin* 23 (1997): 32-40.

¹²⁰ Barbara Ehrenreich, *Bright-Sided: How Positive Thinking is Undermining America* (New York: Metropolitan, 2009). “Motivation industry” is Ehrenreich’s term for the variety of services and products aimed at self-motivation, such as motivational speakers, seminars, guides, books, calendars, and workplace posters.

¹²¹ Karen A. Cerulo, *Never Saw It Coming: Cultural Challenges to Envisioning the Worst* (Chicago: University of Chicago Press, 2006).

delusion on the parts of those living in the US, who believe that nothing bad could ever happen here.” A number of European peakists agreed, noting that they did not have the “same denial complex in Europe” about environmental issues, while a Canadian found that “even raising the issue of peak oil disturbs North American [*sic*] happy, happy, eternal optimistic attitude.”¹²² Similarly, a college professor noted that peak oil and climate change are “difficult topics to discuss at faculty meetings or business meetings where optimism toward the [business as usual] future reigns supreme. [My colleagues] are all delusional, of course. Amazing to witness.”¹²³ This sense of invincibility has been only partially punctured by America’s military failure in Iraq and the economic recession.

As a Connecticut man in his twenties observed, the prevalence of optimistic biases means that many Americans wear “such deeply rose colored glasses that they interpret peak oil as ‘negative thinking.’”¹²⁴ As Cerulo noted, “when those fixated on the worst cannot or will not be “cured,” they will likely be distanced from the broader community, their deviance underscored.”¹²⁵ Since “bad news is bad manners,” as a New York woman put it, dozens of respondents described an experience similar to the middle-aged Massachusetts man, whose friends “either say I’m crazy or just roll their eyes and back away.”¹²⁶ If they weren’t viewed as “crazy,” most peakists were considered “downers” by friends and family, leading a California man to conclude that “80% of Americans do not want to think about the environment, or anything more controversial

¹²² Respondents 9565610, 9580101, and 9692814.

¹²³ Respondents 9565610, 9580101, 9692814 and 9566158.

¹²⁴ Ehrenreich, 8. Respondent 9597368.

¹²⁵ Cerulo, 65.

¹²⁶ Respondents 9601195 and 9601157.

than who played well or badly in the last football game,” while a “progressive” Minnesota grumbled that the “lack of seriousness is growing. Happy faces are preferred.”¹²⁷ An Oregonian complained that “due to the brainwashing and the cheer-leading attitudes which prevails in the US one really can’t speak the truth unless it is pleasant.”¹²⁸

Energy Optimism: Cornucopianism and Technological Solutionism

On energy and environmental issues, American optimism is manifested as a hegemonic faith in the “dominant social paradigm,” a “common sense” that has existed since at least the post-World War II period with two basic pillars: “cornucopianism” and “technological solutionism.” The “dominant social paradigm” in the contemporary West, which Richard McNeill Douglas has described as “the working faith of our civilization,” is characterized by “abundance and progress, growth and prosperity, faith in science and technology, and commitment to a laissez-faire economy.”¹²⁹ In a capitalist economy dependent on continual growth (of at least 5% of gross domestic product per year), those who embrace the dominant social paradigm—that is, most Americans—implicitly accept that the natural resources we depend on are limitless, or can be made limitless through technological developments. Buttressing this expectation of infinite growth is a faith in the development of technologies that will solve future problems so deep and so

¹²⁷ Respondents 9580171 and 9585039.

¹²⁸ Respondent 9570884.

¹²⁹ Richard McNeil Douglas, “The Ultimate Paradigm Shift: Environmentalism as Antithesis to the Modern Paradigm of Progress,” in Stefan Skrimshire, ed., *Future Ethics: Climate Change and Apocalyptic Imagination* (Continuum: 2010), 206. R.E. Dunlap and K.D. Van Liere, “The ‘New Environmental Paradigm’: A Proposed measuring instrument and preliminary results,” *Journal of Environmental Education* 9, no. 4: 10-19.

rarely challenged that many peakists said that discussing it was “almost like talking about religion.”¹³⁰ A North Carolina woman asserted that “the belief in technological progress is a secular religion, including among the academics with whom I interact,” and a Colorado man posited that “one must embrace the religious tenets of ones [sic] time, and the main religious tenet of our time is the religion of technology, that technology will save us in the end.”¹³¹ As a “progressive” Colorado man who was now “living relentlessly within his means” put it, “those who do not embrace this religion are viewed as heretics and are shunned by their community.”¹³² These tenets are rarely considered rationally, as a septuagenarian noted: “when I [ask my interlocutors] how they think a new technology will hold up beneath the weight of scale — i.e. powering millions upon millions of electric cars... they don’t seem to have an answer.”¹³³ As I discuss in the next chapter, Americans in the post-WWII period saw such incredible technological developments that the nation gradually adopted what Evgeny Morozov terms “technological solutionism.” This unwieldy but useful terms signifies, at the most basic level, the expectation that technology will solve future societal problems, but it also recasts “all complex social situations either as nearly defined problems with definite, computable solutions or as transparent and self-evident processes that can be easily optimized”—as opposed to situations that might require concerted political, social, and/or cultural responses, or even sacrifices.¹³⁴ Faith in technological solutionism is often

¹³⁰ Respondent 9590707.

¹³¹ Respondents 9563017 and 9577121.

¹³² Respondent 9577121.

¹³³ Respondent 9563747.

¹³⁴ Evgeny Morozov, *To Save Everything, Click Here: The Folly of Technological Solutionism* (New York: PublicAffairs, 2013), 5. This question is also addressed, in a slightly different way, by sociologists of risk

supported, at some level, with a dose of American exceptionalism, the expectation that “American ingenuity will come up with something else.”¹³⁵

Hostile responses to concerns about resource depletion, climate change, species loss, and technological solutionism evinced the age-old tendency to shun the messenger, but they also seemed to hit too close to home. As a North Carolina man noted, “people do not want to look at the limits to their lifestyle. I have found the pointing out flaws and weaknesses in systems is seen [as] criticism of people personally.”¹³⁶ Claiming that there are limits to infinite growth not only “challenges their assumptions regarding the way the world works” as well as “their future expectations,” it “implicates their way of life as part of the problem,” as a young peakist observed.¹³⁷ As a result of these responses, many believers no longer communicate with their friends, family, and co-workers about environmental issues at all. For example, a North Carolina woman found that “people get intensely angry even at the suggestion our life styles may be in for a change,” so she “shut[s] up and never mention[s] it.” A Georgia woman said, “at this point, I’m very

and disasters, with scholars like Ulrich Beck and Kai Erikson remaining wary of relying on technology and experts, while scholars such as Anthony Giddens, Penelope Canan, Nancy Reichman have much more confidence.

¹³⁵ Respondent 9565610.

¹³⁶ Respondent 9600939. As many commentators have noted, the last public figure to criticize Americans’ lifestyles and call for sacrifice was Jimmy Carter, in his infamous “crisis of confidence” speech in 1979. Although the initial reaction to the speech was actually positive, the success of Carter’s political opponents (both Republicans and Democrats) in tying the assertion of limits to Carter’s political incompetence and impotence provided a lasting lesson about the demand for optimism in public rhetoric. A noteworthy moment in this legacy was George W. Bush’s comments after 9/11 that Americans need not sacrifice in any way, but rather should continue their consumption. See Kevin Mattson, *What the Heck Are You Up to, Mr. President? Jimmy Carter, America’s “Malaise,” and the Speech That Should Have Changed the Country* (Bloomsbury: New York, 2009), and my discussion of the legacy of 1970s “limits” discourse in chapter 2.

¹³⁷ Respondent 9559395.

selective about who I'll attempt to talk to about this and even our economic outlook in the U.S.»¹³⁸

In the context of a pervasive culture of optimism, what is perhaps most surprising is that the peak oil movement appeared in the mid-2000s at all. How did this occur? I turn to this question in the next chapter.

¹³⁸ Respondents 9589722 and 9574202.

Chapter 2: Abundance, Scarcity, and Limits in the Age of Oil

In this chapter, I first present a short history of the peak oil movement, and explore the political, economic, and environmental conditions that precipitated its coalescence. Three developments in the mid-2000s led to the genesis of a social movement motivated by energy concerns: the United States' invasion of Iraq in March 2003, sharp increases in the price of oil and gasoline and growing awareness of anthropogenic climate change. Two additional necessary elements were widespread Internet access and the circulation of concerns about oil depletion in traditional mass media.

Second, I place these concerns about resource depletion and scarcity in a broader historical context by looking at popular beliefs about abundance, scarcity, and limits in the United States over the last century. These patterns of beliefs in abundance and concerns over scarcity are the backdrop against which recent assertions of limits—peakism as well as climate change—are often understood. I conclude by assessing the re-emergence of “limits” discourses in the twenty-first century.

A Brief History of the Peak Oil Movement

By the late 1990s, Colin Campbell had spent four decades working in the oil industry as a petroleum geology consultant for major oil companies. He had also been “crying wolf,” as the *Wall Street Journal* later put it, for over two decades about the threat of oil depletion, and in 1998, he penned an article in *Scientific American* on “The

End of Cheap Oil” and published a book on *The Coming Oil Crisis*.¹ Along with petroleum engineer Jean Laherrère, Campbell inspired Ron Swenson, an American engineer and former professor with decades of experience in renewable energy development and computer security, to create peak oil’s first website, “The Coming Global Oil Crisis.” In 2000, Campbell convened a network of “interested scientists and government officials,” calling itself the Association for the Study of Peak Oil (ASPO), and began to advocate the theory of peak oil in interviews.² In 2001, two additional websites popped up, the technical “Oil Analytics” and the generally Malthusian “Die Off.”³ In 2002, ASPO held its first conference, an International Workshop on Oil Depletion, in Uppsala, Sweden. The next year, the second ASPO meeting in Paris received minor press coverage, and in 2003 ASPO created its own website.⁴

From the era of the civil rights movement until the mid-2000s, television offered the most direct and effective means for social movements to gain publicity and promote their cause.⁵ The peak oil movement operated below this level of publicity, in part because it often lacked a powerful visual element—bell curves and oil barrels don’t

¹ Jeffrey Ball, “As Prices Soar, Doomsayers Provoke Debate on Oil’s Future,” *Wall Street Journal*, September 21, 2004, A1. Colin J. Campbell, “The End of Cheap Oil,” *Scientific American* 278, no. 3: 60-65. Campbell, *The Coming Oil Crisis* (London: Independent Publishers Group, 1998).

² Leonardo Maugeri, “Squeezing more oil from the ground.” *Scientific American Magazine* 301 no. 4 (2009): 56-63. For one of these interviews, see Michael C. Ruppert, “Colin Campbell on Oil: Perhaps the World’s Foremost Expert on Oil and the Oil Business Confirms the Ever More Apparent Reality of the Post-9-11 World,” *From the Wilderness*, http://www.fromthewilderness.com/free/ww3/102302_campbell.html. Accessed May 25, 2013. Personal correspondence with Colin Campbell, February 6, 2010.

³ The Coming Global Oil Crisis, <http://www.hubbertpeak.com/>; Oil Analytics, <http://www.oilanalytics.net/>; Die Off, <http://www.dieoff.com>. In this section, I trace the origins and development of websites using the Internet Archive (also known as the “Wayback Machine”), <http://www.archive.org/index.php>. Accessed November 22, 2009.

⁴ Doris Leblond, “ASPO sees conventional oil production peaking by 2010,” *Oil and Gas Journal*, June 30, 2003, 28.

⁵ Carol A. Stable, *White Victims, Black Villains: Gender, Race and Crime News in US Culture* (New York: Routledge, 2006).

exactly capture the imagination. Although the peak oil movement coalesced on the Internet, traditional (“old”) media, meaning newspapers, magazines and television, played a major role in alerting their audiences to the theory of peak oil. This reflects what media studies scholar Henry Jenkins calls a “convergence culture,” which has emerged over the last two decades. In this new, constantly shifting terrain, old media place “issues on the national agenda” through their wide distribution, but active consumers, working through grassroots media, blogs, and online forums, “reframe those issues for different publics.”⁶ Peak oil is an exemplar of this dynamic, in which the mere mention of peak oil, even in a distinctly negative light, was instrumental in motivating Americans to explore the subject on the Internet, with consequences that the authors of these reports could not expect or intend.

The first article on peak oil in American newspapers ran on the Associated Press Business Wire in 2002 and was picked up by newspapers from Dubuque’s *Telegraph – Herald* to Connecticut’s *Hartford Courant*. Before pronouncing concerns about oil depletion misguided, “Oil Experts Draw Fire for Warning” explained the concept of peak oil and the existence of institutions and experts (such as Colin Campbell) dedicated to it. It introduced a central figure, Matthew Simmons, described as “an investment banker who helped advise President Bush’s campaign on energy policy.”⁷ By 2003, petroleum trade journals (such as *Oil & Gas Journal* and *Offshore*) begin publishing arguments for

⁶ Henry Jenkins, “The Cultural Logic of Media Convergence,” *International Journal of Cultural Studies* 7, no. 33 (2004): 35. For a fuller description of convergence culture, see Jenkins, *Convergence Culture: Where Old and New Media Collide* (New York : New York University Press, 2006).

⁷ Bruce Stanley, “Oil Experts Draw Fire for Warning,” *Telegraph – Herald*, May 27, 2002, B5. Simmons, a speaker at almost every ASPO conference until his passing in 2010, was noteworthy not so much for his actual expertise but for the imprimatur of legitimacy he provided. In this 2002 article he is described as one of many advisers to candidate George W. Bush on energy issues, but by the end of the decade many peakists described him as something akin to President Bush’s right hand man.

and against predictions of an imminent peak of global production, but few imagined the media momentum the subject gained in 2004, when a flood of books were published, articles and reviews written, and websites launched.⁸

Non-fiction books either converted readers or pushed them to search the Internet for “peak oil,” which led them to a host of new websites, such as “The Energy Bulletin,” “The Oil Drum,” “Peak Oil News & Message Boards” and “Life After the Oil Crash.”⁹ These sites might serve different functions. The first two, for example, offered updates on oil- and energy-related news from sources around the world, as well as expert opinions. The latter two, with large memberships and freewheeling, mushrooming forums, created the sense of community described in the last chapter. When peakists began to speak to friends and family about their new belief-system or attend the MeetUp peak oil groups that were forming around the country, the subject was suddenly newsworthy.¹⁰ The peak oil phenomenon, which an Ontario newspaper referred to as the “peak oil cult” in 2004, suddenly merited attention from national newspapers and magazines, such as *The New York Times*, *Washington Post* and *Harper’s Monthly*.¹¹

⁸ For example, Michael C. Lynch, “Petroleum resources pessimism Debunked in Hubbert model and Hubbert modelers’ assessment,” *Oil & Gas Journal*, July 14, 2003, 38, <http://www.ogj.com/articles/print/volume-101/issue-27/special-report/petroleum-resources-pessimism-debunked-in-hubbert-model-and-hubbert-modelers-assessment.html>. Accessed May 25, 2013. John H. Wood, Gary R. Long, David F. Morehouse, “World conventional oil supply expected to peak in 21st century,” *Offshore*, April 2003, <http://www.offshore-mag.com/articles/print/volume-63/issue-4/technology/world-conventional-oil-supply-expected-to-peak-in-21st-century.html>. Accessed May 25, 2013.

⁹ This process is well-documented by sociologists and journalists, of course. See, for example, Peter L.M. Vasterman, “Media-Hype: Self-Reinforcing News Waves, Journalistic Standards and the Construction of Social Problems,” *European Journal of Communication* 20, no. 4 (2005): 508-530.

¹⁰ “Peak Oil News & Message Boards,” <http://www.peakoil.com>; “The Energy Bulletin,” <https://www.energybulletin.net>; “The Oil Drum,” <http://www.theoil drum.com>; “Life After the Oil Crash,” <http://www.lifeaftertheoilcrash.com>. Accessed February 11, 2008.

¹¹ Daniel Yergin, “Imagining a \$7-a-gallon Future,” *New York Times*, April 4, 2004, WK1; Terence Corcoran, “The ‘Peak Oil’ cult,” *National Post* (Don Mills, Ontario), October 12, 2004, FP15; Michael R.

In 2003, only a handful of titles relating to the dangerous scarcity of oil were available, but in 2004 and early 2005, the following non-fiction books appeared in national bookstores: *The Last Hours of Ancient Sunlight: The Fate of the World and What We Can Do Before It's Too Late* (2004); *High Noon for Natural Gas* (2004); *Out of Gas: The End of the Age of Oil* (2005); *Crude: The Story of Oil* (2004); *The Coming Oil Crisis; Oil, Jihad, and Destiny* (2004); *Crossing the Rubicon: The Decline of the American Empire at the End of the Age of Oil* (2004); *Beyond Oil: The View from Hubbert's Peak* (2004); *Blood and Oil: The Dangers and Consequences of America's Growing Oil Conspiracy* (2004); and *Powerdown: Options and Actions for a Post-Carbon World* (2004).¹² Many were written by established authors, and their dramatic titles give a sense of their tone—each work proclaiming the limits to economic growth, national power, and personal consumption, intending to pierce America's imperial optimism with the authority of Moses returning from Mount Sinai. They educated a public largely ignorant of the subject—according to a 2004 “Peak Oil News & Message

Duffey, “Prognosticating oil supplies: Lower reserves and higher prices ahead?” *Washington Times*, November 3, 2004, A23; Paul Roberts, “Cheap oil, the only oil that matters, is just about gone,” *Harper's Magazine*, August 2004.

¹² In 2003, the major peak oil book available was Richard Heinberg's *The Party's Over*. Peak Oil News & Message Boards poll entitled “I First Learned About Peak Oil,” <http://peakoil.com/modules.php?name=Surveys&op=results&pollID=2>. Accessed December 13, 2009. Thom Hartman, *The Last Hours of Ancient Sunlight: The Fate of the World and What We Can Do Before It's Too Late* (New York: Three Rivers Press, 2004); Julian Darley, *High Noon for Natural Gas* (New York: Chelsea Green, 2004); David Goodstein, *Out of Gas: The End of the Age of Oil* (New York: W.W. Norton & Company, 2005); Sonia Shah, *Crude: The Story of Oil* (Toronto: Seven Stories Press, 2004); Colin Campbell, *The Coming Oil Crisis* (London: Multi-Science Publishing Co. Ltd, 2004); Ronald R. Cooke, *Oil, Jihad and Destiny* (New York: Opportunity Analysis, 2004); Michael Ruppert and Catherine Austin Fitts, *Crossing the Rubicon: The Decline of the American Empire* (New York: New Society Publishers, 2004); Kenneth S. Deffeyes, *The View From Hubbert's Peak* (New York: Hill and Wang, 2004); Michael T. Klare, *Blood and Oil: The Dangers and Consequences of America's Growing Dependence on Petroleum* (New York: Holt Paperbacks, 2004); and Richard Heinberg, *Powerdown: Options and Actions for a Post-Carbon World* (West Sussex, UK: Clairview Books, 2004).

Boards” poll, 80% of that site’s members had learned of the subject from between 2001 and 2004.

Concerns about oil depletion spread quickly. Befitting a twenty-first century social movement, peakism’s existence was enabled by growing access to the Internet in the United States—the percentage of Americans with Internet access increased from 44 percent in 2000 to 66 percent in 2004 (and in 2013 stands at 78 percent).¹³ The first month that Peak Oil News & Message Boards went online, March 2004, only 25 new members joined, but by the end of the year, over 200 members were signing up each month, so that the fledgling website already had 1,500 people actively participating. With new information and analyses posted dozens of times a day, these websites confirmed peakists’ developing psychological, emotional and financial investments in the ideology, since every new development could be interpreted to vindicate the theory; aided them in converting their family, friends, and others; and helped them plan their futures.¹⁴ Through these websites, peakists learned that they were not alone, and they quickly began to develop a subculture that reinforced their concerns. In 2004, for example, Caryl Johnston promoted her self-published novel, *After the Crash: An Essay-Novel of the Post-Hydrocarbon Age*, as “The First Peak Oil Novel.” *The End of*

¹³ Pew Internet and American Life Project Surveys, <http://pewinternet.org/Reports/2012/Digital-differences/Main-Report/Internet-adoption-over-time.aspx>. Accessed May 19, 2013.

¹⁴ By the late 2000s, the stream of peak oil evangelical works has turned into a flood. Some of the most significant works are Tom Mast, *Over a Barrel: A Simple Guide to the Oil Shortage* (New York: Hayden Publishing, 2005); Matthew R. Simmons, *Twilight in the Desert: The Coming Saudi Oil Shock and the World Economy* (Hoboken, NJ: John Wiley & Sons, Inc., 2005); Peter Tertzakian, *A Thousand Barrels a Second: The Coming Oil Break Point and the Challenges Facing an Energy Dependent World* (New York: McGraw-Hill, 2006); Edwin Black, *Internal Combustion: How Corporations and Governments Addicted the World to Oil and Derailed the Alternatives* (New York: St. Martin’s, 2006); David Strahan, *The Last Oil Shock: A Survival Guide to the Imminent Extinction of Petroleum Man* (New York, John Murray, 2007); Michael T. Klare, *Rising Powers, Shrinking Planet: The New Geopolitics of Energy* (New York: Holt Paperbacks, 2008).

Suburbia: Oil Depletion and the Collapse of the American Dream, featuring emerging authorities such as Campbell, Heinberg, Simmons and Kunstler, was released that same year, and reviewed in the *New York Times*.¹⁵ By early 2005, adherents were purchasing and wearing “PeakGear” and a wide range of YouTube videos were being posted. MeetUp groups were formed in urban centers, and New York City’s was the subject of another *Harper’s* piece in 2006.¹⁶

As the movement expanded, its concerns shifted from intellectual study to personal action, and a dedicated core began to plan and prepare for the post-peak world. The shift was reflected in the media’s coverage of peak oil. Although the central argument of the peak oil theory—that cheap oil will disappear sooner rather than later—was still the primary assertion that most journalists were interested in (refuting), there was also attention paid to the “movement” or “cult” of peak oil. From 2005 to 2009, peak oil was a relatively popular topic in mainstream American news. *The Washington Post*, *USA Today*, the *Los Angeles Times* and *Time* magazine all ran at least one original analysis of the issue, and the Associated Press (AP) distributed four articles to its legion of subscribers.¹⁷ The *New York Times* ran six feature articles about the peak oil phenomenon, with titles like, “Duck and Cover, It’s the New Survivalism,” and “The End

¹⁵ Caryl Johnston, *After the Crash: An Essay-Novel of the Post Hydrocarbon Age* (Self-published, 2004). *The End of Suburbia: Oil Depletion and the Collapse of the American Dream* (The Electric Wallpaper Co., 2004); Natalie Cavanor, “Running on Empty; Two Video Producers Paint a Bleak Picture of Oil Wars and the End of the American Suburbs,” *New York Times*, March 13, 2005, L11.

¹⁶ Bryan Urstadt, “Imagine There’s No Oil: Scenes from a Liberal Apocalypse,” *Harper’s Monthly*, August 2006.

¹⁷ James Howard Kunstler, “Wake Up, America. We’re Driving Toward Disaster.” *The Washington Post*, May 28, 2005, B3; Joe Raedle, “Are We There Yet? Oil Joyride May Be Over,” *USA Today*, May 28, 2005; Matthew DeBord, “‘\$20 Per Gallon’ by Christopher Steiner, *Los Angeles Times*, May 26, 2009; Justin Fox, “Peak Possibilities,” *Time*, November 21, 2007.

is Near! (Yay!)”¹⁸ On radio and Internet news, where subject matter is often more sensational, peakism’s presence was been far greater—sources ranging from National Public Radio Salon, and CNBC to Fox News covered the movement numerous times during this period. Indeed, in a 2009 op-art graphic in the *New York Times*, Philip Niemeyer portrayed peak oil as the national “fear” of 2007.¹⁹

¹⁸ Peter Maass, “The Breaking Point,” *New York Times*, August 21, 2005, E30; Joseph Nocera, “On Oil Supply, Opinions Aren’t Scarce,” *New York Times*, September 10, 2005, C1; Paul Brown, “The Deathwatch for Cheap Oil,” *New York Times*, October 14, 2006, C5; Roger Lowenstein, “What Price Oil?” *New York Times*, October 19, 2008, 46; Jon Mooallem, “The End is Near! (YAY!)” *New York Times*, April 19, 2008, 28; Michael Lynch, “‘Peak Oil’ is a Waste of Energy,” *New York Times*, August 25, 2009, A21.

¹⁹ Philip Niemeyer, “Picturing the Past Ten Years,” *New York Times*, December 27, 2009, <http://www.nytimes.com/interactive/2009/12/27/opinion/28opchart.html>. Accessed May 19, 2013.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
IT!	Florida Recount	9/11	Flag Pins	Bring 'em on.	Abu Ghraib	Katrina	Watching TV on Computers	Baby Boom	The Election	The Economy	IT!
NEWISH	Tiniest Phone	Airport Security	Guantanamo	Friendster MySpace	Wiretaps	Self-Portraits	Tsunami	Rock Bands	Moms on Facebook	Iran on Twitter	NEWISH
BUSINESS	Rolling Blackouts	Dot-Com Crash	\$650 / I.B.R., A.C. W.I.E.L. W.D. R.R. NO-FEE. COZY.	Credit-Default Swaps	GOOG 85.00	Blackwater	¥	Flip this HOUSE	PLEASE BUY THIS HOUSE	Stimulus	BUSINESS
FEAR	More is Not Enough	Anthrax	Snipers	SEVERE HIGH ELEVATED GUARDED LOW Everything	24	I.E.D.'s	H5N1	322 ⁹ / ₁₀	Credit Freeze	H1N1	FEAR
MAVERICK	John McCain	NO	Al Jazeera	We're ashamed the president... is from Texas	ATR AMERICA	George Bush doesn't care about black people.	Sincere Beards	Boone Pickens	REVOLUTION	Goldman Sachs	MAVERICK
CHAMPION	Shaq & Kobe	Dale Earnhardt Sr.	Patriots	Steroids	Mia Hamm	Lance Armstrong	Barbaro	Tiger Woods	Michael Phelps	27	CHAMPION
CULTURE	Pokémon	Wikipedia!	"American Idol"	HEY YA!	Camera Phones	M.M.O.R.P.G.'s	yummo!	Writers' Strike	The Art Market	Lady Gaga	CULTURE
COUPLE	Carrie & Mr. Big	Harry Potter & Voldemort	Europe & Money	★★★★★ Gigli	Demi Moore & Ashton Kutcher	Tom Cruise & Oprah Winfrey	I can't quit you.	Brangelina & Family	Federer & Nadal	+8 ÷ 2	COUPLE
FAD	Going Viral	Jonathan Franzen CONNECTIONS	Collagen	Tuscany	Brownie & Big Time & Rummy & Boy Genius & Condi.	Movies in the Mail	Ironic Mustaches	Crocs	I'm NOT A Plastic Bag	VV	FAD
LOGO	Starbucks	FDNY NYPD	BADA BING!	O	W04	CN FOX NEWS	Apple	LUKOIL	Obama	citi	LOGO
NOUN	glitch	news cycle	freedom fries	spider hole	friendly fire	truthiness	chatter	surge	hope	Auto-Tune	NOUN
VERB	I.M.	outsource	download	punk'd	Swift boat	Google	text	blog	go rogue	crowd-source	VERB
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	

Fig. 2.1: In Philip Niemeyer's retrospective *New York Times* Op-Ed Chart of December 27, 2009, peak oil is represented as the national "fear of 2007."

Although evaluations of the contemporary media ecology tend to downplay the reach and influence of traditional media, the impact of the mere mention of oil depletion in popular newspapers, magazines, and on television cannot be understated. In late May

of 2006, for example, Samantha Gross of the Associated Press wrote an article about peakists—“Energy Fears Looming, New Survivalists Prepare: Too Late to Save the Planet, They Say, So They Focus on Saving Themselves”— that was picked up by news sources across the country, from MSNBC.com, *USA Today*, and the *San Francisco Chronicle* to the popular conservative website The Drudge Report.²⁰ What made this story exceptional is that it mentioned the URL of a specific website, Peak Oil News & Message Boards. On that site, the number of new members per month had fluctuated between 250 and 350 users during the previous year, but 2,928 people joined in May.²¹

A similar event occurred in early June of 2008, when the same website was mentioned on the CNN Saturday Morning News. During a segment on oil prices, CNN correspondent Deborah Feyerick explained that

Peak oil is the point when global oil production peaks then goes down. The remaining supply is limited and will be harder to get at, and that means fewer barrels a day. Some oil experts say that day is here, others predict it is twenty to thirty years away. But as gas prices rise, Web sites like *peakoil.com* and *survivalblog* are getting more and more visitors talking about the end of cheap oil and the possible threat of political and economic instability around the world.²²

²⁰ Samantha Gross, “Energy Fears Looming, New Survivalists Prepare: Too Late to Save the Planet, They Say, So They Focus on Saving Themselves,” MSNBC.com, May 24, 2006, <http://www.msnbc.msn.com/id/24808083>. Accessed November 23, 2009; Samantha Gross, “Energy Fears Looming, New Survivalists Prepare,” *San Francisco Chronicle*, May 25, 2006; The Drudge Report linked directly to the Associated Press News website in their “May 25, 2008 00:45:23 GMT edition,” <http://www.drudgereport.com/>. Accessed November 23, 2009.

²¹ The connection between Gross’ article and the site’s membership was confirmed by an administrator of Peak Oil News and Message Boards. Private message from “Aaron,” January 28, 2009.

²² CNN Saturday Morning News, “Oil Prices Soar, Stocks Plummet: How Bad Is Our Economy?; Hillary Clinton Accepts Defeat,” aired on June 7, 2008, transcript at <http://transcripts.cnn.com/TRANSCRIPTS/0806/07/smn.02.html>. Accessed May 19, 2013.

After this story, tens if not hundreds of thousands of Americans visited these websites, and almost five thousand became members of Peak Oil News & Message Boards.²³

Media attention directed Americans to peak oil websites, but it did not lead them to become members or alter their lives to prepare for an apocalyptic collapse. They were pushed and pulled in this direction by three of the central events of the 2000s: the invasion and occupation of Iraq; rising gas prices; and the spread of apocalyptic environmentalism, motivated by concerns about climate change.

America in Iraq: Blood for Oil?

The United States' controversial invasion and occupation of Iraq in 2003 led many Americans to consider global energy politics for the first time in a generation, if not their lifetimes. Beginning in 2002, when the groundwork for the invasion was being laid, and increasingly as President Bush's official justifications for the war (Iraq's possession of nuclear or biological weapons) failed to materialize in 2003, the media speculated on potential hidden motives for the action. Bush's critics, citing "blood for oil" as the President's secret motivation, mounted the largest group of coordinated protests in the nation's history in February and March of 2003, but the Bush administration's adept public relations strategies and the failure of mainstream journalists after 9/11 kept these claims on the political fringe.²⁴

²³ As these examples show, traditional media retains its power to spread information in our convergence culture, but it does not define the terms of debate.

²⁴ See John W. Western, *Selling Intervention and War: The Presidency, the Media, and the American Public* (Baltimore: Johns Hopkins University Press, 2005); and W. Lance Bennett, Regina G. Lawrence and Steven Livingston, *When the Press Fails: Political Power and the News Media from Iraq to Katrina* (Chicago: University of Chicago Press, 2007).

Anti-war protesters, pacifists and leftists began to oppose the imminent attack in 2002, culminating in a day of coordinated global protests on February 15, 2003 in over sixty countries. Over 150 different American cities participated, with somewhere between 100,000 to 300,000 people marching in New York City alone.²⁵ Although protestors criticized the imminent invasion from a variety of political positions, the simple slogan “no blood for oil” was a rallying cry. The mainstream media tended to bury this critique, and rarely elaborated on its potential insight or veracity.²⁶ By late 2004, when it became clear that Iraq did not possess chemical or nuclear weapons of mass destruction, the primary justification for the war was simply shunted to the sidelines and politicians began to trumpet the liberation and democratization of Iraq as its ultimate goal. But, despite continuing support for their soldiers, few Americans were convinced: in a 2007 poll, 73 percent of Americans said they believed that controlling Iraq’s oil supply was at least a factor in the decision to invade Iraq.²⁷ Once a marginal, conspiratorial whisper, the claim that “the Iraq war [was] largely about oil,” as Alan Greenspan put it, became widely accepted.²⁸

²⁵ Gary Leupp, “The Weekend the World Said No to War: Notes on the Numbers,” *Counterpunch*, February 25, 2003, <http://www.counterpunch.org/2003/02/25/the-weekend-the-world-said-no-to-war-notes-on-the-numbers>. Accessed May 19, 2013.

²⁶ For example, one CBS report juxtaposed the following aspects of an anti-war event: “‘Can you justify blood for oil?’ read a sign held by 14-year old Marianna Daniels at a rally in Madison, Wis. The New York rally was opened by Singer Richie Havens performing ‘Freedom,’ just as he did 34 years earlier at the original Woodstock Festival. Speakers included Susan Sarandon, Harry Belafonte and Pete Seeger.” By linking a potentially insightful critique of American militarism alongside with its author’s age, musical entertainment, and the Woodstock Festival, the article implicitly minimizes the claim of petro-imperialism, while associating it with the historical memory of the 1960s. Sue Chan, “Massive Anti-War Outpouring: Crowds Huge and Small Demonstrate Against Possible War With Iraq,” CBS News, February 15, 2003.

²⁷ Kevin Phillips, *American Theocracy: The Peril and Politics of Radical Religion, Oil, and Borrowed Money in the 21st Century* (New York: Viking, 2006), 69.

²⁸ Bob Woodward, “Greenspan is Critical of Bush in Memoir: Former Fed Chairman Has Praise for Clinton,” *Washington Post*, September 16, 2007, A1.

Peakism provided a ready-made ideology for interpreting the Iraq war not as an isolated occupation but a “resource war” heralding a post-Cold War age of conflict. Early tracts such as Michael Klare’s *Resource Wars: The New Landscape of Global Conflict* (2001) predicted that oil scarcity would lead nations into prolonged resource wars for the remaining petroleum.²⁹ As the official rationale for the invasion vanished, the Iraq war seemed to fulfill the prophecy, and many peakists discovered the peak oil theory while researching its government’s true motives. A North Carolina man said that “answering the question of why we were in Iraq led inevitably to oil and energy resources,” while a woman in her sixties “wondered what in the world could cause the US to preemptively attack a country (Iraq) that was not linked to 9/11,” until she “discovered the Colin Campbell projections.” A Connecticut Democrat said that “the invasion of Iraq makes little sense until viewed from a position that takes into account resource scarcity,” so that peakism “provid[ed] a world view” with “explanations of events and trends that makes more sense than the popular narrative provided by more mainstream media outlets.”³⁰

Rising Gas and Oil Prices

The second event that drew Americans toward peakism was the rising price of gasoline throughout the 2000s.³¹ The United States developed a special relationship with

²⁹ Klare 2001.

³⁰ Respondents 9573008; 9589283; and 9683776.

³¹ Although gasoline prices generally reflect the cost of a barrel of oil, the U.S. Department of Energy estimates that the price of crude has only a 67% stake in determining the price of gasoline at the pump. The rest is the costs of refining, distribution and marketing by corporations, state and federal taxes, and

oil throughout the twentieth century, as it became the lifeblood of the country's rise to superpower status. The history of the connection between petroleum and major events in American history is not the subject of this dissertation, but this back story is so well-known by most American peakists—most introductory works on peak oil include a lengthy section on the subject—that it constitutes a cornerstone of their ideology.³²

The combination of large, easily accessible oil fields, technological expertise and industrial infrastructure put the U.S. in the driver's seat of global production from roughly 1860 to 1940, when it still produced two-thirds of the world's oil.³³ Americans consumed most of the world's oil during this period, too—by 1929, 78 percent of the world's cars were in the U.S.³⁴ Petroleum first emerged as a major source of national power during World War I, when the U.S. supplied over eighty percent of the Allies' oil, fueling decisive military innovations such as submarines, airplanes and tanks. Access to oil was a crucial factor in the Allies' victory in WWII as well—America's petro-advantage was overwhelming, and energy considerations were a crucial (if often overlooked) factor in various military decision and outcomes, such as Hitler's decision to invade the Soviet Union and the Japanese attack on Pearl Harbor.³⁵ In both wars, then, the United States “floated to victory upon a wave of oil.”³⁶

station markup. Since station managers themselves must predict what the price will be before they purchase drums of gasoline, the price of gasoline is, at times, temporarily out of step with the price of oil.

³² See, for example, Heinberg 2003; Kunstler 2005; and Roberts 2004.

³³ David S. Painter, “Oil and the American Century,” *Journal of American History* 99, no. 1 (2012): 26.

³⁴ Yergin 1996, 208.

³⁵ Painter, 27. Yergin 1996, 334-367.

³⁶ Comment by Britain's Lord Curzon on the Allies victory, Inter-Allied Petroleum Conference at Lancaster House, 1918. Quoted in Yergin 1996, 183.

In the post-war period, the “century of oil” fueled the “American Century.”³⁷ Cheap oil enabled the rise of the automobile, which became the signature commodity of the post-war years and produced elemental transformations in social life, such as the rapid growth of interstate highways and decentralized suburbs. Cars provided physical mobility, symbolic social mobility, and, perhaps most importantly, a “psychological mobility that freed the individual from the limits of space and time.”³⁸ The establishment of the “consumers’ republic” of the post-war period relied on petroleum-based products; cheap oil was responsible for “regularizing overconsumption and making it the new normal.”³⁹ Familiar products were suddenly inexpensive enough for mass consumption, as “cheap oil allowed chemists to derive cheap replication of costlier products,” and “reliance on these products helped define basic patterns of consumption in twentieth-century America.”⁴⁰ Cheap oil made for cheap food, too, as “oil-powered machinery and petrochemical-based pesticides, herbicides, and fertilizers also sparked unprecedented increases in agricultural production,” known as the Green Revolution.⁴¹ In all of these ways, the suddenly cheap, price-stable, abundant resource provided “the building block for a proliferating array of consumer goods” and thus “underpinned a steadily rising U.S. standard of living” in the post-war period.⁴²

³⁷ Yergin 1996, 15. Henry Luce, “The American Century,” *Life Magazine*, February 17, 1941.

³⁸ Natasha Zaretsky, *No Direction Home: The American Family and the Fear of National Decline, 1968-1980* (Chapel Hill: The University of North Carolina Press, 2007), 89.

³⁹ Lizabeth Cohen, *A Consumer’s Republic: The Politics of Mass Consumption in Postwar America* (New York: Vintage Books, 2003). Typical of most social and political histories in its marginalization of energy as a factor in American history, Cohen’s influential work barely mentions petroleum.

⁴⁰ Black, 50.

⁴¹ Painter, 25.

⁴² Priest, 236.

The 1973 OPEC embargo brought petroleum to the forefront of national attention for the first time and changed the rosy relationship between Americans and oil. However, “black gold” would deliver another boon to the United States behind the scenes. By the 1980s, the Soviet Union quietly became the world’s largest oil exporter, its economy and ability to support its satellite states heavily reliant on the price of petroleum. The oil glut of the 1980s, which halved the price of a barrel of crude, devastated the Soviet economy and expedited the collapse of the U.S.S.R.⁴³

The price of both crude oil and gasoline were relatively steady throughout the 1990s before skyrocketing between 2000 to 2009—the average price of gas in the U.S. increased by over 300% (from January of 2000 to July 2008), while the cost of a barrel of crude increased by almost 600%.⁴⁴ For the latter, this jump did not necessarily reflect any real scarcity, but rather investors’ hopes and fears, the result of unsubstantiated rumors and public relations campaigns. The price of gas rose slightly after 9/11 on general fears of instability in the Middle East, hovering around \$1.50 per gallon, before beginning to increase in December 2002. While many commentators pegged this increase to concerns about Venezuela instituting an oil embargo on the United States—at the time, Venezuela supplied the United States with almost one billion barrels per day, and its President, Hugo Chavez, was an outspoken critic of President Bush—the primary cause was the threat of war with Iraq.⁴⁵ Even the quick and triumphant victory that

⁴³ Priest, 245. Also see Marshall I. Goldman, *Petrostate: Putin, Power, and the New Russia* (Oxford: Oxford University Press, 2008).

⁴⁴ The average price of gasoline rose from \$1.27 in January of 2000 to a high of \$4.11 in July 2008, while the average barrel rose from \$22.68 to a high of \$133.60.

⁴⁵ The specific number is 0.827 million barrels per day. U.S. Energy Information Administration, Independent statistics and Analysis, “Crude Oil and Total Petroleum Imports Top 15 Countries.”

neoconservatives predicted might remove Iraq's oil from the global market for some time, which could lead to a global shortage. OPEC's promise to increase production in the case of such an event did not convince investors, and fears of scarcity caused the price to climb. Since the cause of the price of gasoline is inscrutable to many consumers, the peak oil theory provided a commonsensical, easily intelligible explanation.

Oil and gas prices rose steadily until 2008, with two spikes. The first was the actual invasion of Iraq—the week of “Shock and Awe” the average gallon cost \$1.72, a 25% increase from only three months before. The second was Hurricane Katrina, which destroyed over forty offshore oil platforms and forced the temporary closure of nine nearby refineries, generating renewed fears of a shortage.⁴⁶ Immediately after Katrina, the price of crude jumped almost seven dollars from the previous month. The prices of oil and gasoline were followed so closely on television, in print, and on the Internet—from December 2002 to December 2010, *Time* magazine alone ran over one thousand stories (online or in print) that mentioned oil and gas prices—that the national mood seemed to be tethered to the price of “the Devil's excrement.” As one peakist investor in his early sixties reported, “as the price of oil rose, I began to investigate the causes of the price increases,” eventually leading him to peak oil.⁴⁷

⁴⁶ Insofar as Hurricane Katrina was a major factor in the increase of gas prices, one could potentially subsume gas prices under the category of “environment” in this section. However, to do so would present at least two problems. First, it would suggest that gas prices are as ‘natural’ as the weather, either through an environmental determinism or a naturalization of free market principles (supply and demand) which are assumed to control commodity prices. While environmental factors clearly have a major impact on the cost of energy production, there are many other factors, which this section tries to consider. The tendency to subsume energy (particularly oil) under the general category of “environment” can be expedient, but it can also be misleading.

⁴⁷ Respondent 9592346.

In a CBS poll taken just after Hurricane Katrina (late August 2005), nearly nine in ten Americans said their lives had been affected by rising gas prices. In my surveys, one out of ten peakists said that these specific increases led them to the peak oil theory. A trucker in his fifties who spent \$15,000 a month on diesel gasoline, for example, reported that the “!!!!@#\$%^*!!! price of diesel” after Katrina led him to peakism. A Virginia woman in her thirties said that the “gas prices [*sic*] spike after Katrina” led her to “reconsider the status quo,” while a liberal in his early thirties, who had “been watching the steady climb in gas prices since 2000, when Katrina spiked prices over \$3,” found in peak oil the explanation for this increase—“earlier in the year I had discovered the writings of James Kunstler. I went back to his website and others and felt I discovered the missing element in my thinking... The logic of Peak Oil and [M.] King Hubbert seemed sound to me.”⁴⁸

Environmentalism and Climate Change

Anxiety and concern about climate change was the third major event that led Americans to the peak oil movement in the mid-2000s. The threat of anthropogenic climate change has been on the public radar since 1988, and as early as early as 1991 35 percent of Americans said they were “a great deal... worried” about global warming.⁴⁹ However, until very recently it consistently rated low on the level of public concerns, far behind the economy, unemployment, foreign policy, and healthcare. This level of

⁴⁸ Respondents 9569670; 9564499; and 9569883.

⁴⁹ 27% answered “a fair amount,” 21% “only a little” and 12% “not at all.” Gallup, “In U.S., Concerns About Global Warming Stable At Lower Levels, March 14, 2011, <http://www.gallup.com/poll/146606/concerns-global-warming-stable-lower-levels.aspx>. Accessed May 19, 2013.

concern seemed to be changing in the mid-2000s, when general awareness and public concern over climate change grew to new heights.

Scientific evidence of a general warming trend, drought, and even extreme weather events have only so much impact on concerns about climate change. Popular culture has been especially significant in affecting the debate over climate change, and we might appropriately date this millennial concern to Roland Emmerich's 2004 film *The Day After Tomorrow*, which portrayed a spectacularly abrupt climate change that produces an ice age almost overnight, and sparked a newfound interest in the potential immediate impact of climate change in newspapers and blogs.⁵⁰ Hurricane Katrina, which 68 percent of Americans associated with climate change, seemed to present a turning point for climatic awareness.⁵¹ Previously, many Americans had little first-hand knowledge of the potential negative consequences of carbon emissions since, as Michael Ziser and Julie Sze pointed out, "the most tangible evidence of warming on U.S. soil was to be found in coastal arctic villages."⁵² If Katrina brought the potential consequences of climate change home, so to speak, former Vice President Al Gore's film of the following year, *An Inconvenient Truth*, seemed just as influential, presenting clear science, stark predictions, and arresting images, such as the flooding of Manhattan.⁵³ As a work of propaganda, the film was successful: a Nielsen poll showed that 89% of American

⁵⁰ A number of audience surveys found that the film significantly increased its audience's concern about climate change. See, for example, Andrew Balmford, Linda Birkin, Andrea Manica, Lesley Airey, Amy Oliver and Judith Schleicher, "Hollywood, Climate Change, and the Public," *Science* 305, no. 5691: 1713.

⁵¹ Zogby International, "Americans Link Katrina, Global Warming," <http://www.zogby.com/News/ReadNews.dbm?ID=1161>. Accessed October 20, 2010.

⁵² Michael Ziser and Julie Sze, "Climate Change, Environmental Aesthetics, and Global Environmental Justice Cultural Studies," *Discourse* 29, nos. 2/3: 402.

⁵³ *An Inconvenient Truth*, Davis Guggenheim, 2006.

viewers said they were more aware of climate change’s causes and consequences, and 74% said they had begun taking individual actions.⁵⁴ However, Gore’s association with climate change allowed conservative climate denialists to politicize the issue by claiming that climate science was simply liberal propaganda.

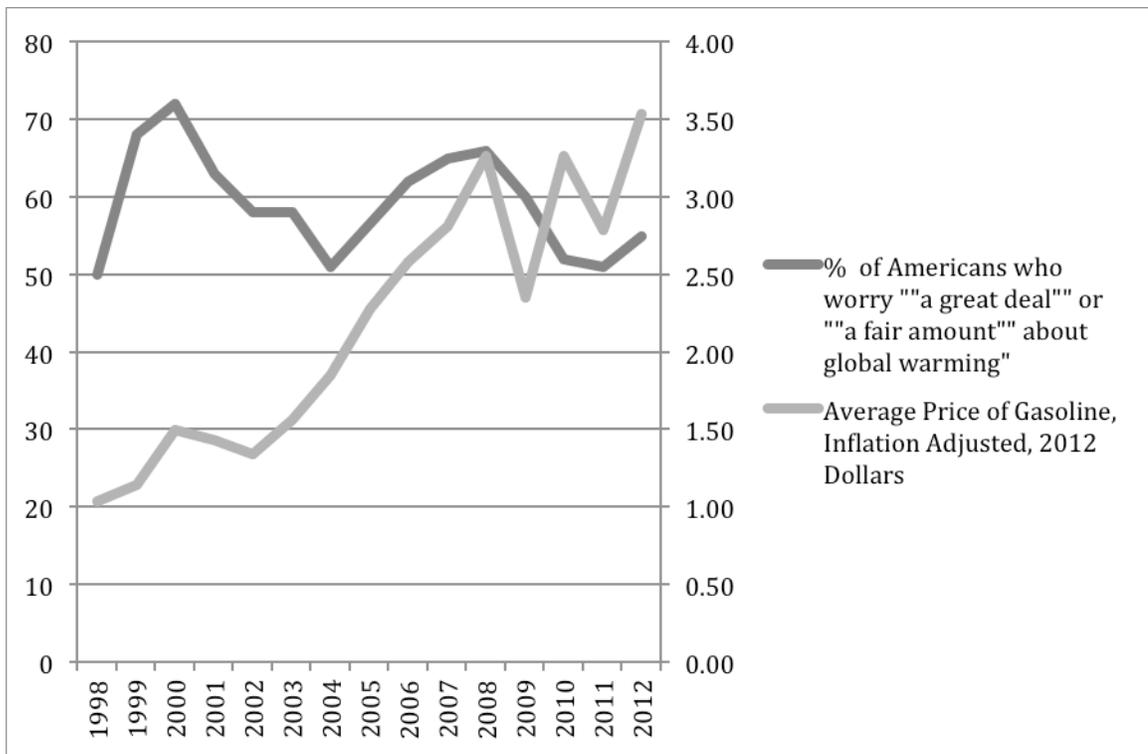


Fig. 2.2. The price of gasoline rose throughout the 2000s, while the percentage of Americans concerned about climate change ebbed and flowed. Source: Gallup.

That same year, the United Nation’s Intergovernmental Panel on Climate Change (IPCC), an international, United Nations-affiliated organization composed of thousands of scientists, released a comprehensive report on climate change which seemed to finally put to rest any doubts about the existence of a scientific consensus; Al Gore shared the Nobel Peace Prize with the IPCC; and MTV sponsored a “Live Earth” concert that

⁵⁴ Nielsen, “Global Consumers Vote Al Gore, Oprah Winfrey and Kofi Annan Most Influential to Champion Global Warming Cause: Nielsen Survey,” July 2, 2007, available at http://nz.nielsen.com/news/GlobalWarming_Jul07.shtml. Accessed May 14, 2013.

spanned all seven continents. In one poll, 59% of Americans agreed that “it’s necessary to take major steps starting very soon.”⁵⁵ From Hollywood films with environmental messages (in 2008 alone: *Wall-E*, *The Happening*, and *The Day the Earth Stood Still*) to corporate greenwashing campaigns, a sea change in environmental concern seemed to be at hand.

Many peakists were led to anxieties about resource depletion through their research into climate change. A computer programmer said, “I learned about peak oil while I was studying climate change,” while a retired Denver meteorologist “got interested in peak oil ancillary to my environmental studies. I just happened to catch a couple of authors who had written peak oil books speaking to the environmental issue and picked up on the concept.” An Idaho man said that “abnormally warm weather during the winter upset” his winter ski plans, which “led me to getting informed about climate change. This led to me getting informed about our dependence on fossil fuels which led me to peak oil.”⁵⁶

Abundance, Scarcity and Limits in Recent American History

While the Iraq war, rising gas prices, climate change awareness and Internet access provide the proximate causes of the peak oil phenomenon, these events and developments played out amidst shifting popular conceptions about energy availability, the free market, and technology. Concerns about oil depletion should be located in the

⁵⁵ Gary Langer, “Poll: Public Concern on Warming Gains Intensity,” ABC News, March 26, 2006, <http://abcnews.go.com/Technology/GlobalWarming/story?id=1750492&page=1>. Accessed May 19, 2013.

⁵⁶ Interview with Steve Allen, November 11, 2009. Interview with Bill Fickas, November 12, 2009. Respondent 9569902.

series of historical cycles of beliefs about abundance, scarcity and limits in recent American history. In the second half of this chapter, I situate peakism and the American “culture of optimism” in this ebb and flow, before returning to the present to identify contemporary discourses about environmental limits.

Confidence in abundance and a general optimism are certainly consistent with longstanding mythology about the “national character” of Americans. From the earliest chronicles of the United States, such as Alexis de Tocqueville’s classic *Democracy in America*, through the 1970s, Americans have traditionally been cast as optimists, whose vision of the future was as boundless as their expanding Western border. Knowing the United States only through its literature and reputation, Franz Kafka, while conducting researching for his novel *Amerika*, told his compatriots in 1912, “I like the Americans because they are healthy and optimistic.” Half a century later, John F. Kennedy asserted that “the American, by nature, is optimistic,” and few would have disagreed.

However, the role of “nature” in this formulation is more interesting than Kennedy may have intended. To what extent was twentieth century American optimism reliant on or the product of an imagined natural abundance? Throughout the last century, a chief determinant of what one might call the national mood was an estimation of the abundance or scarcity of natural resources, especially petroleum. In a direct, tangible way, cheap oil played a crucial but often unacknowledged role in the development of American geopolitical power and its citizens’ high quality of life in the post-WWII period, essentially mixing an expectation of unlimited cheap energy into the foundations upon which post-war life was constructed. In the late 1960s and 1970s, this expectation

was challenged by environmentalists, whose concerns about limits to continued growth were seemingly corroborated by concerns about global population growth, environmental disasters, oil embargoes, and economic woes. In the 1980s, behind Ronald Reagan's optimism and a global petroleum glut that led to low prices, these concerns vanished for almost two decades. In the second half of this chapter, I place the peak oil movement in this historical context.

Before tracing the history of growth, abundance, and scarcity in American popular political economic thought, we need to define these terms. While "growth" usually denotes a significant increase in economic production and consumption, the term has assumed connotations far beyond the economic sphere. Over time, it has come to mean progress itself, with attendant industrial development, material consumption, and technological innovation. Economic growth is a key aspect of the "dominant social paradigm" identified in the last chapter, but it was not always so. The idea that progress, national strength, and even general happiness are the necessary byproduct of an indefinitely expanding economy, measured as the percentage rate of increase of gross domestic production from one year to the next, is a nearly-universal assumption of contemporary public discourse with which few Americans seem to disagree. But it would have struck many in the first three decades of the twentieth century as a strange notion indeed.

The Great Depression is the most appropriate place to begin any discussion of modern notions of growth, which one historian has called "easily the most important idea

of the twentieth century.”⁵⁷ During the 1930s, most politicians and economists spoke not of economic growth, but merely of “balance” and “security,” while the federal government adopted policies intended to avoid economic “stagnation,” such as cutting farm production to steady prices. Three decades after Frederick Jackson Turner declared that the frontier was closed, many spoke of the nation’s maturity and impending decline, while some Southerners feared that continued industrial development and modernization would weaken local communities and deliver power and wealth to distant interests.⁵⁸ After Pearl Harbor, however, ambivalence about economic growth disappeared, as the entire industrial machinery was put toward the war effort. Historians have called World War II a “gross national product war” with good reason, as the war ultimately turned not so much on strategy or moral rectitude, but on which side might produce more materiel (tanks, trucks and aircraft) and produce devastating new weapons.⁵⁹

During the war, as historian Godfrey Hodgson put it, “American society seemed to have discovered the secret of economic progress,” and in its aftermath few were interested in returning to the modest goals of balance and stability.⁶⁰ In the immediate

⁵⁷ McNeil, 336.

⁵⁸ Collins, 2-3.

⁵⁹ Russell Frank Wiegley, *The American Way of War: A History of United States Military and Policy* (New York: Macmillan, 1973), 146. Even more broadly, speaking of a national economy before the 1940s is somewhat anachronistic. As Timothy Mitchell argues in *Carbon Democracy: Political Power in the Age of Oil* (New York: Verso, 2011), no political economist referred to an object called “the economy” prior to the 1930s. The emergence of “the economy” was dependent on two factors that did not emerge until this period. First, the expanded national administrative machinery that emerged only with the New Deal. Second, a consensus in the field of economics about how to measure a national economy, or whether that was even possible or desirable. In the 1920s, economists such as Richard T. Ely and Thorstein Veblen “wanted economics to start from natural resources and flows of energy,” while a competing group wanted “to organize the discipline around the study of prices and the flows of money” (132). The second group won out, and as a result the national economy has been measured by the amount of times that money changes hands, and has, for the most part, ignored questions of energy and natural resources.

⁶⁰ Godfrey Hodgson, *America In Our Time: From WWII to Nixon—What Happened and Why* (Garden City, NJ: Doubleday, 1976), 48.

post-war period, then, economic advisers and government economists formulated a lasting political philosophy that economic historian Robert M. Collins has termed “growthmanship,” raising growth “from an overriding economic goal (first among equals) to a new organizing principle for a neo-corporatist political economy.”⁶¹ By his 1949 State of the Union, President Truman announced that it would not be enough to “float along ceaselessly” or “merely to prepare to weather a recession if it comes.” Instead, the country must “constantly... achieve more and more jobs and more and more production,” which “will mean more and more prosperity for all the people.”⁶²

In the 1950s, conditions seemed to bend their will to this new ideology of growth. The baby boom (1946-1964) constituted the largest population increase in American history, and gross national product per capita increased 24 percent between 1947 and 1960, while personal consumption spending increased by 22 percent. Behind strong labor unions, the middle class swelled. With only seven percent of the global population, the United States now accounted for half of global manufacturing output, and accrued nearly half of the world’s income each year.

In a historical moment in which Western mythology played a large role in the national imaginary, economic growth was cast as a new and limitless frontier.⁶³ Alvin Hansen, a leading American Keynesian economist, declared consumption to be “the

⁶¹ Robert M. Collins, *More: The Politics of Economic Growth in the Postwar World* (New York: Oxford University Press, 2000), 21.

⁶² Harry Truman, Annual Message to the Congress on the State of the Union, January 5, 1949.

⁶³ See Richard Slotkin, *Gunfighter Nation: The Myth of the Frontier in Twentieth-Century America* (New York: HarperPerennial, 1993), 347-533.

frontier of the future.”⁶⁴ Notions of progress, linked to American exceptionalism and Manifest Destiny, were translated into the theory of economic growth, which relied upon and was expressed through material consumption. In this vein, Lizabeth Cohen has described the “new postwar ideal of the purchaser citizen who simultaneously fulfilled personal desire and civic obligation by consuming,” in which consumption became an ethical imperative.⁶⁵ This consumption ethic is evident in some of the era’s leading nonfiction. In his 1954 book *People of Plenty*, for example, David Potter wrote that society expected the modern man to “consume his quota of goods—of automobiles, of whiskey, of television sets,” and “regards him as a ‘good guy’ for absorbing his share, while it snickers at the prudent, self-denying, abstemious thrift that an earlier generation would have respected.”⁶⁶ Writing in *The Organization Man* two years later, William Whyte noted that “thrift is becoming a little un-American.”⁶⁷

If Dwight Eisenhower seemed reluctant to promote or rely on “growthmanship,” John F. Kennedy was not.⁶⁸ The pursuit and expectation of economic growth became one of the key features of his New Frontier, an official imperative epitomized by his creation of a Cabinet Committee on Growth. The signs were everywhere, sometimes quite literally—soon after his inauguration, placards asking “What have you done for Growth today?” were placed at every desk of the Department of Commerce.⁶⁹ While growth

⁶⁴ Alan Brinkley, “The New Deal and the Idea of the State,” in Steve Fraser and Gary Gerstle, eds., *The Rise and Fall of the New Deal Order, 1930 – 1980* (Princeton: Princeton University Press, 1989), 108.

⁶⁵ Cohen, 119.

⁶⁶ David Potter, *People of Plenty: Economic Abundance and the American Character* (Chicago: University of Chicago Press, 1954), 70.

⁶⁷ William H. Whyte, *The Organization Man* (New York: Simon & Schuster, 1956), 14.

⁶⁸ On Eisenhower and growth, see Collins, 43-45.

⁶⁹ Collins, 52.

seemed, in this formulation, an end in itself, it actually served two key political functions during this period. First, economic growth became a key site of competition in the Cold War. As the Soviet Union and the United States sought to attract nonaligned states, their ability to produce cheap goods and thereby deliver material comforts and a high quality of life became a crucial issue. This consumption race was embodied in the famous “kitchen debate” between Nikita Khrushchev and Richard Nixon in 1959.

Second, economic growth would play a vital role in allowing American politicians to sidestep questions about the distribution of wealth, which had become a divisive issue in the 1930s. In a metaphor of the era, the question of how to slice the pie of national wealth could remain unanswered so long as the pie continued to grow. Major institutions that might have offered a differing vision followed this lead: unions, for example, shifted their focus from solidarity, power and structural changes to collective bargaining over wages and benefits. As Hodgson observed, it became “tempting to jump to the conclusion that there was not much more to democracy,” or, for that matter, politics, “than keeping unemployment under 5 per cent, guaranteeing a swelling flood of consumer goods to the employed, and increasing the gross national product by a respectable percentage each year.”⁷⁰ If post-war technocratic politics presented itself as a science, with similar universality and authority, we might view growthmanship as a new form of alchemy, through which finite physical resources would be transmuted into perpetual economic growth.⁷¹

⁷⁰ Hodgson, 52.

⁷¹ While it is tempting to think of growth as a specifically capitalist goal, Communist regimes, particularly the Soviet Union, practiced their own form of competitive growthmanship. Indeed, as J.R. McNeil has argued, while “Communism aspired to become the universal creed of the twentieth century,” in reality “a

Expectations of a continually expanding pie created a renewed sense of national possibilities. As historian Lawrence R. Samuel observed, post-WWII American “futurism was, in a word, limitless,” envisioning a “consumer utopia” whose “sheer abundance [was] capable of solving all of our social ills.”⁷² Amidst an unprecedented boom in population growth, economic output, health, material consumption and quality of life, it is no surprise that, as James T. Patterson has noted, “the majority of the American people during the twenty-five or so years following the end of World War II developed ever-greater expectations about the capacity of the United States to create a better world abroad and a happier society at home.”⁷³ The post-war ideology of growth, seemingly validated by an ever-rising GDP, enabled the country’s expansive Cold War foreign policy, including deep-pocketed support for allies and regular military interventions around the globe. At home, the sense of unlimited national possibilities facilitated Eisenhower’s pragmatic acceptance of New Deal programs and enabled Lyndon Johnson’s pursuit of a Great Society. In keeping with the gospel of growth, these programs would not necessarily redistribute wealth, but sought instead to democratize access to the “American way of life” and patterns of consumption.

Beyond politics and foreign policy, a slew of technological innovations changed the way that Americans lived and the futures they imagined. Research and development for WWII and Cold War technologies produced regular innovations that gave many

more flexible and seductive religion succeeded where communism failed: the quest for economic growth.” *Something New Under the Sun: An Environmental History of the Twentieth-Century World* (New York: Norton, 2000), 336.

⁷² Lawrence R. Samuel, *Future: A Recent History* (Austin: University of Texas Press, 2009), 108.

⁷³ James T. Patterson, *Grand Expectations: The United States, 1945-1974* (New York: Oxford University Press, 1996), vii.

Americans a sense of invincibility.⁷⁴ The atom had been harnessed and might provide cheap, safe energy for thousands of years. Medical research produced antibiotics, vaccines, pacemakers, and, in 1960, the birth control pill. After the shock of Sputnik's launch, the United States soared ahead in the Space Race—the moon was the next stop, and then perhaps Mars, if not even more distant destinations. Drawing on the popular appeal of technological marvels that opened new, unconsidered possibilities, science fiction moved into the mainstream. Presenting utopian visions of a grand tomorrow, futurists like Carl Sagan and Alvin Toffler, the influential space art of Arthur Radebaugh, and TV shows like *The Jetsons* (1962-1963) represented a projection of growthmanship into the future.⁷⁵ As historian Brian C. Black noted, “the rise of technological progress” in postwar America “had convinced most people that human ingenuity could overcome all problems that came from limited resources.”⁷⁶

While human ingenuity played a vital role in America's post-WWII economic and geopolitical growth, so did petroleum. As Eisenhower himself noted in his 1955 State of the Union address, “at the foundation of [America's] economic growth are the raw

⁷⁴ While these changes the related sense of growing possibilities affected almost most Americans, they were distributed unequally. While people of color, gays and lesbians, and poor Americans still suffered from widespread discrimination, oppression, and disenfranchisement, the sense of growth and possibility may have played a role in the political movements that emerged in the 1960s.

⁷⁵ See Samuel, 77-108. Radebaugh was an illustrator whose sleek, airbrushed advertisements for companies such as Coca Cola and United Airlines had a powerful influence on contemporary future imaginaries. His syndicated cartoon strip, “Closer Than We Think” (1958-1962), presented the mass attainment of a better life through technological progress, through cartoons demonstrating breakthroughs such as “Push-Button Education,” “Robot Warehouses,” and of course the flying automobile. See Matt Novak, “Before the Jetsons, Arthur Radebaugh Illustrated the Future,” *Smithsonian*, April 2012. Alvin Toffler was a well-known futurist whose articles, such as “The Future As A Way of Life” (*Horizon*, Summer 1965), and books, such as *Future Shock* (New York: Random House), had a wide cultural resonance.

⁷⁶ Brian C. Black, “Oil for Living: Petroleum and American Conspicuous Consumption,” *Journal of American History* 99, no. 1 (2012), 43.

materials and energy produced from [its] minerals and fuels.”⁷⁷ The key ingredient in the prosperity and optimism of the postwar decades was cheap oil: from 1945 to 1970 the per-barrel price of crude oil remained below \$20 in 2008 dollars (figure 2.3). Cheap oil enabled the rise of the automobile, which became the signature commodity of the postwar years, as the number of cars owned by Americans doubled between 1945 and 1950. This vast fleet benefitted from the 1956 Interstate Highway Act, which constructed 41,000 miles of freeway, made mostly of asphalt, a petroleum derivative. Cars and roads produced elemental transformations that fundamentally altered the structure of everyday life, such as decentralized suburbs and exurbs, long commutes to work, and a national drive-in culture. Assuming an endless supply of cheap fuel, suburban developers and advertisers promoted suburbia as the ideal, and by 1960 more Americans lived in suburbs than cities.

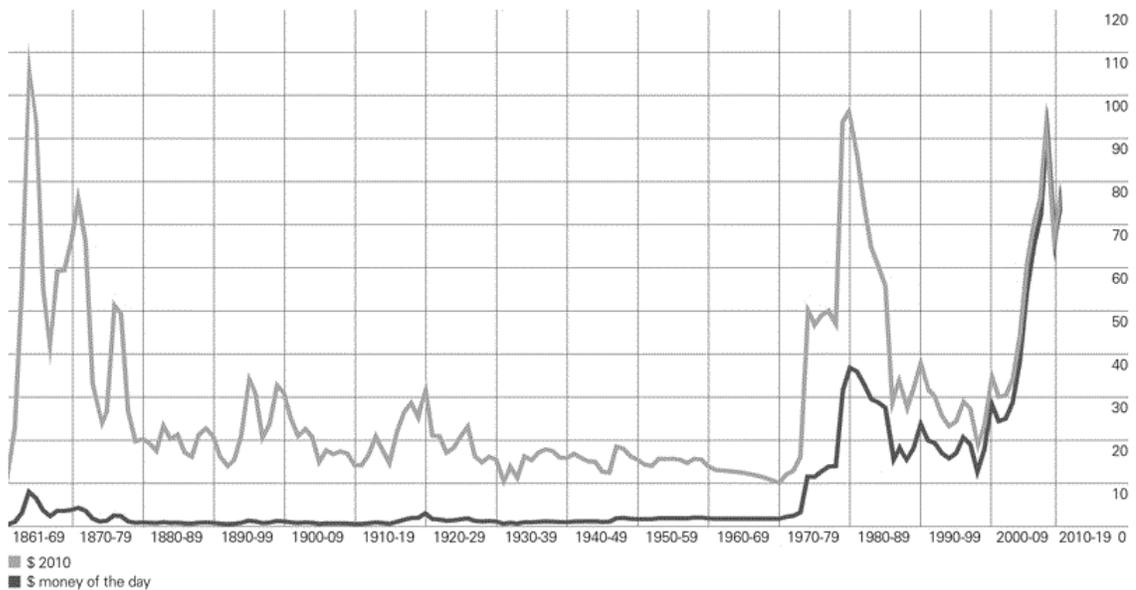


Fig. 2.3: Crude oil prices, 1861-2010. Source: BP Statistical Review 2012.

⁷⁷ Dwight D. Eisenhower, Annual Message to the Congress on the State of the Union, January 6, 1955.

Cheap oil made a whole world of products and services available to middle-class Americans for the first time. All kinds of products were suddenly inexpensive enough for mass consumption, as “cheap oil allowed chemists to derive cheap replication of costlier products,” and “reliance on these products helped define basic patterns of consumption in twentieth-century America.”⁷⁸ Plastics, now made from petroleum-derived polymers, replaced wood and textiles in many homes, while refrigerators, laundry machines, dishwashers, lawnmowers, televisions and automobiles appeared in homes and garages. Cheap oil made for cheap food, too, as “oil-powered machinery and petrochemical-based pesticides, herbicides, and fertilizers also sparked unprecedented increases in agricultural production,” known as the Green Revolution.⁷⁹ In all of these ways, the suddenly cheap, price-stable, abundant resource served as “the building block for a proliferating array of consumer goods” and thus “underpinned a steadily rising U.S. standard of living” in the post-war period.⁸⁰

While many Americans have long considered the post-war period, especially the 1950s, to be an exceptional “golden age,” environmental historians have recently highlighted just how exceptional it was.⁸¹ Taking a longer view of history, we should recall that scarcity has been a regular concern for human societies for almost all of human history and pre-history. As Collins put it, “in all prior civilizations and social orders, the

⁷⁸ Black, 50.

⁷⁹ Painter, 25.

⁸⁰ Priest, 236.

⁸¹ Used frequently at the time, no less a historian than Eric Hobsbawm uses this term to describe life in the “developed capitalist countries” from roughly 1945-1973 and notes that other historians have chosen similar terms—the French call this period their “thirty glorious years” (*les trente glorieuses*) and the British “the Golden Age of the Anglo-Americans.” *The Age of Extremes: A History of the World, 1914-1991* (New York: Vintage, 1994), 258.

vast bulk of humanity had been preoccupied with responding to basic material needs,” but in the mid-twentieth century “the age-old bonds of scarcity were broken,” marking a “fundamental change in the human condition.”⁸² This leap became possible because of technological innovations, to be sure, but also because petroleum is a unique substance, formed over millennia, the likes of which human beings had never discovered and most likely will never discover again on this planet. As we have come to rely on an ecology of oil, it is easy to forget just how unique petroleum is, and how historically significant its full application during this period was.

As a historical event, the exploitation, refinement, and application of petroleum in industrial scales in the post-WWII period is perhaps best understood side-by-side with similar historical events. The closest parallel is not to be found in whale oil or coal, but in the arrival of human beings on a new land mass, such as North America (approximately 15,500 years ago) and Australia (approximately 40,000 years ago). In those cases, archaeologists have found, prehistoric pioneers also discovered a seemingly abundant source of energy in the caloric flesh of large mammals lacking natural defenses against humans. In almost every case, they exploited this new source of energy quite inefficiently, driving entire herds over cliffs, for example, as well as carelessly, hunting them to extinction within a century.⁸³ Population growth, the result of this energy abundance, could not be sustained when it disappeared.

⁸² Collins, 2.

⁸³ See Brian M. Fagan, *The Great Journey: The Peopling of Ancient America* (Gainesville: University Press of Florida, 2003), 190-195; Jared Diamond, *Collapse: How Societies Choose to Fail or Succeed* (New York: Viking, 2005), 9-10; Diamond, *Guns, Germs and Steel: The Fates of Human Societies* (New York: Norton, 1999), 42-47.

Petroleum is just as unique as the giant ground sloths that once traversed North America because of two factors: its high energy density and its transportability. As all forms of energy are essentially concentrations of solar radiation converted and stored through photosynthesis, their energy density reflects how much sunlight they contain. For millennia, humans consumed only sunlight that had recently fallen on plant matter, or, when those plants were consumed by fauna, accumulated in animal fat. Pre-industrial societies had two primary sources of energy: human and animal labor, and biomass, especially wood—when burned, mature trees release the energy equivalent of decades of sunlight. Coal, which is sunlight transferred through photosynthesis into plants, then compressed in high temperature and pressure over millions of years, constituted a historic step forward for human beings, since for the first time we were drawing on an ancient bank of sunlight. But even algae and zooplankton contain far more concentrated sunlight than plant matter, and petroleum is composed of millions of years of such organisms, a seemingly limitless bank account of ancient sunlight compressed by geologic forces into a high energy density (figure 2.4). Almost as important is petroleum's liquidity, which makes it easily transportable and able to flow through inexpensive pipelines as coal never could.

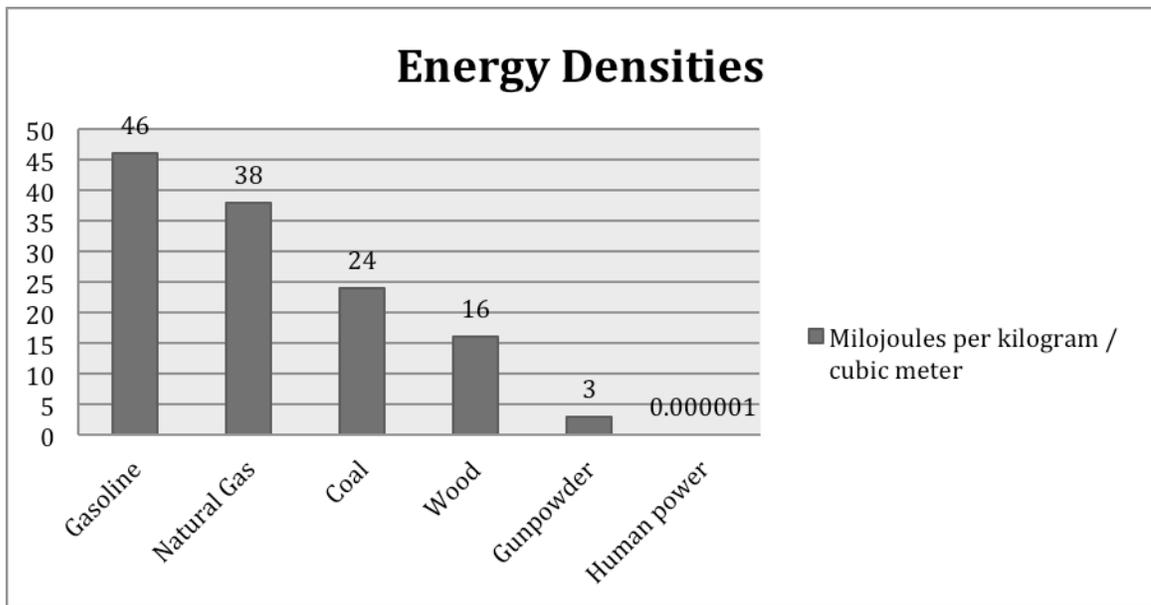


Figure 2.4. Far more energy-dense than human power, wood (and other biomass) and coal, the ability to harness an ancient bank of sunlight through petroleum led to an improved quality of life for hundreds of millions of human beings in the twentieth century.⁸⁴

As Clive Ponting has pointed out, “all societies faced an energy shortage” until very recently, which effectively limited their ability to grow, in terms of population or what we now call economy, as well as the quality of life available to any more than a small number of people.⁸⁵ By drawing on an ancient bank of sunlight through petroleum, and thus adding an unprecedented augmentation to their energy consumption (figure 2.5), Americans and other Westerners in the mid-twentieth century period entered a historically unique situation, which J.R. McNeill has described as a “liberation from the

⁸⁴ Well-fed humans consume between 2,500 to 4,500 calories per day (10–20 MJ per day), which represents a total metabolic power of 100 to 200 watts. The volume of a human is about 0.1 m³. Approximating the work that a human can do as the equivalent of walking steadily at a rate of 2 m/s shows that a human has an energy density of 1,000 joules per cubic meter, or about twenty to two thousand times greater than wind and water, and about a billion times greater than solar (Table 1). Bradley E. Layton, “A Comparison of Energy Densities of Prevalent Energy Sources in Units of Joules Per Cubic Meter,” *International Journal of Green Energy* 5, no. 6 (2008): 438–455.

⁸⁵ Clive Ponting, *A Green History of the World: The Environment and the Collapse of Great Civilizations* (New York: Penguin, 1991), 289.

drudgery of endless muscular toil and the opening up of new possibilities beyond the range of muscles.”⁸⁶

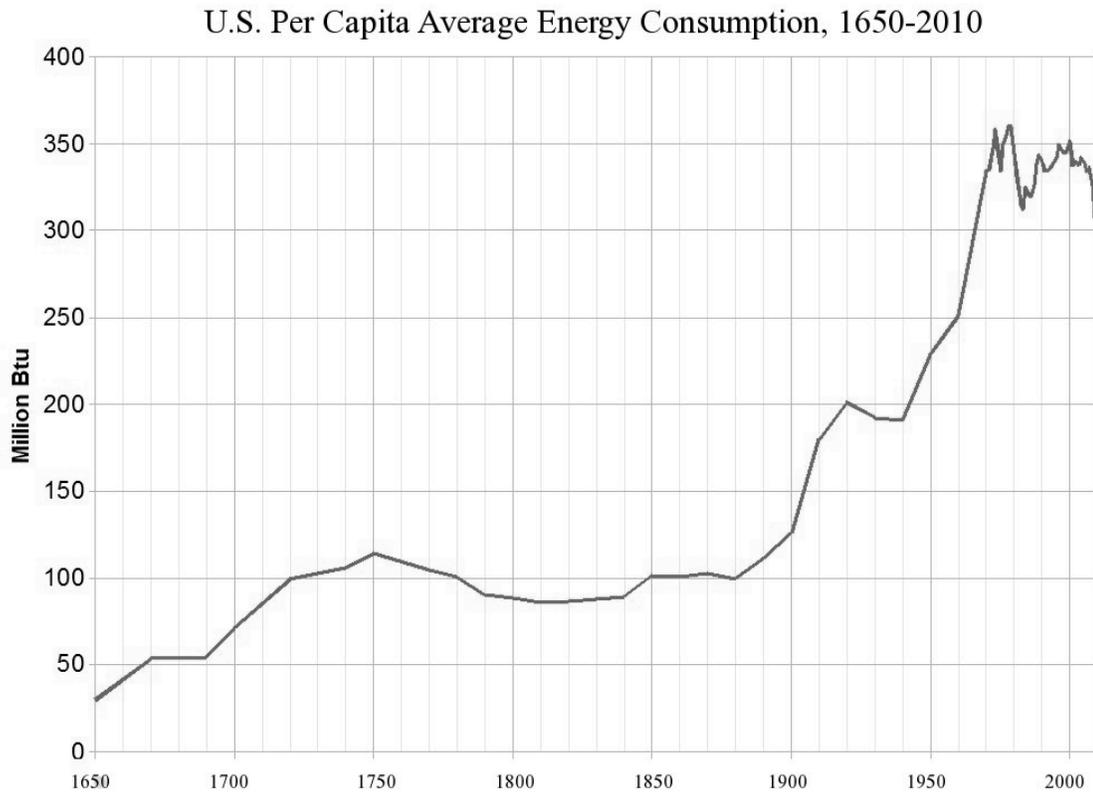


Figure 2.5. With the aid of petroleum, U.S. energy consumption nearly doubled between 1940 and 1972. (Note: This does not include the use of petrochemicals in agriculture, food, and industry.) For most of this period, Americans consumed between two and four times more energy than the global average. Sources: Energy Information Administration Annual Energy Review and US census.

Of course, by the twenty-first century, very few Americans had first-hand experience of the transition from this “somatic” energy regime to the current regime of fossil fuels. The historical uniqueness of the post-war world—and indeed the entire twentieth century, in which more energy was deployed than in all previous human history combined—has long been forgotten, its petro-foundation taken for granted.⁸⁷ The

⁸⁶ McNeill, 15.

⁸⁷ *Ibid.*

benefits of this historical rarity quickly became the new normal, mass consumption no longer conspicuous but expected. In the longer context of human history, however, it becomes clear that abundance is hardly normal, and scarcity hardly an empty threat.

Limits-to-Growth Environmentalism and the 1970s Oil Shocks

From this deep historical perspective, the concerns about energy that emerged in the late 1960s and 1970s were hardly exceptional. Indeed, though they now seem unusual, the kinds of anxieties that motivated the emotional responses we saw from peakists in chapter 1 were at the center of environmental concern in the United States only four decades ago. Historians have rightly celebrated Rachel Carson's *Silent Spring* (1962) as the catalyst of modern American environmentalism, but scholars such as Thomas Robertson have amended this narrative by highlighting the unprecedented public attention that the so-called "Malthusian" tracts of the late sixties and early seventies drew to environmental issues.⁸⁸ These concerns are named after British economist Thomas Robert Malthus, whose 1798 tract, *An Essay on the Principle of Population*, argued that future population growth would inexorably outstrip food supply, causing poverty, epidemics, wars and general misery. Although his work was read widely in nineteenth century Europe—Charles Darwin, for example, considered it an influence on his theory of natural selection—it had much less of an impact in the United States, where Thomas Jefferson's vision of an expanding republic with limitless land and opportunities held sway.

⁸⁸ Thomas Robertson. *The Malthusian Moment: Global Population Growth and the Birth of American Environmentalism* (New Brunswick: Rutgers University Press, 2012).

In the late 1960s, the faith in and expectation of perpetual growth underwent a sudden reversal. By this time, population growth was already making headlines through its sheer numbers—global population, two billion in 1927, hit three billion in 1960 and was expected to surpass four billion in the early 1970s, marking the first time in human history that a generation had seen the global population double. In this context, Paul Ehrlich’s 1968 bestseller *The Population Bomb* ushered in a “Malthusian moment” in American culture that seems inconceivable today. Updating Malthus’ pessimistic prophecies in a (melo)dramatic style, Ehrlich argued that the planet’s environmental crisis boiled down to one fundamental issue: too many human beings competing for a limited set of resources. Its impact was bolstered by a cacophony of similar claims from other authors, such as ecologist Garrett Hardin, whose influential essay “Tragedy of the Commons” suggested that the United States would not be spared the consequences of the degradation of global environmental commons. Historic international events added their own momentum to these apprehensions, such as Apollo 8’s space mission of the same year, which broadcast the first images of the entire planet Earth from outer space, encouraging a new conception of the planet as one interconnected, finite, and potentially fragile ecosystem.

As Malthusian environmental concerns moved into the public arena, they were called into service by diverse political actors for often disparate purposes. As its title suggests, *The Population Bomb* dramatized the threat of overpopulation by framing the issue in classic Cold War terms of weapons and interdependence. Overpopulation in the “Third World” would lead to scarcity and poverty, which might provide fertile ground for

the growth of Soviet communism in non-aligned nations. In this way, the “population bomb” was just as immediate a threat to American interests as nuclear weapons. At the same time, feminist activists repurposed Malthusian anxieties for their own ends, citing overpopulation as yet another reason that women should have legal access to contraception.⁸⁹ Most importantly, *The Population Bomb* raised the stakes of environmental awareness. Although environmental issues already had broad public support, Malthusian concerns “set the apocalyptic horizon of environmentalism,” as John S. Dryzek wrote, “giving the basic reason why care and concern about the environment were not just desirable, but also necessary.”⁹⁰ *The Population Bomb* was a major influence on the architect of the first Earth Day, Wisconsin Senator Gaylord Nelson, who even placed an article by Ehrlich into the *Congressional Record* in 1970.⁹¹ Whereas *Silent Spring* focused primarily on the influence of specific chemical contaminants on wildlife, Malthusian concerns argued that the very future of the human species was at stake. The abrupt shift away from post-WWII growthmanship is remarkable—in one survey, 31 percent of Americans described themselves as “anti-growth,” with another 39 percent “highly uncertain.”⁹²

The second major work of Malthusian environmentalism was 1972’s *Limits to Growth*, which Max Lerner correctly predicted would “detonate through the debates of

⁸⁹ See Elaine Tyler May, *America and the Pill: A History of Promise, Peril, and Liberation* (New York: Basic Books, 2010), 35-56.

⁹⁰ John S. Dryzek, *The Politics of the Earth: Environmental Discourses* (Oxford: Oxford University Press, 2012), 26.

⁹¹ *Congressional Record*, September 12, 1969. The article was “Eco-Catastrophe,” originally published in *Ramparts* (September 1969), 24-28.

⁹² Amitai Etzioni, “America’s Project,” 1979. Quoted in Collins, 165.

the '70s.”⁹³ *Limits to Growth* argued that finite natural resources—from petroleum to heavy metals to arable land—would impose an eventual limit on the growth of contemporary human civilizations, and predicted a dramatic “overshoot and collapse” if the course were not altered. Written collectively by an organization called the Club of Rome, composed primarily of scientists, part of the book’s appeal was its novel use of computer modeling, expressed in charts and graphs that peak oil authors would emulate three decades later. *Limits to Growth* sold four million copies in its first four years, and the report and its reception made headlines in national newspapers for months.

For a short time, *Limits to Growth* pushed Malthusianism back into the center of public debate. Many reviewers disagreed with specific contentions, but even conservatives granted its basic claim that economic systems expecting infinite growth (namely capitalism) were incompatible with natural resources that are finite. *Business Week*, for example, commented that “for all the criticism, practically everyone agrees that on a finite planet, growth must end sooner or later.”⁹⁴ Newspapers published articles such as a 1973 *Chicago Tribune* cover story with the headline, “Fuel, resources dwindling: Can America survive the 20th century?” In it, future Pulitzer Prize-winning journalist Ronald Kotulak asserted that “our lives, our economy, and our country revolve around the grossly wasteful use of abundant energy,” but that since “fossil fuels, except for coal, are running out,” the *Limits to Growth* prediction—described here as a future “marked by an industrial flameout, breakdown of society, and a soaring death rate” until

⁹³ Max Lerner, “Just Imagine! We All Can Avoid a Certain Doomsday,” *Los Angeles Times*, March 10, 1972, C9.

⁹⁴ *Business Week*, March 11, 1972, 98.

a global “collapse around the year 2100”—must be heeded.⁹⁵ Indeed, questioning the value of economic growth became widespread. Nixon’s top environmental advisor, for example, made headlines in 1972 by calling for a “national debate on the desirability of growth,” noting that “the finite nature of man’s physical resources calls for systematic constraints on expansion to avert the degradation of ‘the quality of life.’”⁹⁶ The impact of this “Malthusian moment” on average Americans could be measured even three decades later, by the number of older peakists who cited both *The Population Bomb* and *Limits to Growth* as books that significantly influenced their lives. A New Jersey man, for example, explained his interest in peak oil by reporting that “way back in 1972 I read ‘Limits to Growth,’ which was pivotal in my Environmental leanings.”⁹⁷

Scholars weighed in on the contributions of culture and politics in encouraging unsustainable growth, and economists such as Herman Daly began outlining what an economic system based on a steady-state might look like.⁹⁸ E.F. Schumacher’s 1973 nonfiction book *Small Is Beautiful*, which promoted a “maximum of well-being with a minimum of consumption,” became a bestseller even before its author was invited to the White House by Jimmy Carter. In environmental scholarship, more attention was paid to the potential impact of resource scarcity on society than the impact of human societies on the natural environment. As late as 1976, one state of the field described “the dominant

⁹⁵ Ronald Kotulak, “Fuel, resources dwindling: Can America survive the 20th century?” *Chicago Tribune*, March 4, 1973, 1.

⁹⁶ Gladwin Hill, “Nixon Aide Asks Wide Debate on Desirability of U.S. Growth,” *New York Times*, March 30, 1972, 19.

⁹⁷ Respondent 9590491.

⁹⁸ See, for example, a joint meeting of the National Academy of Television Arts and Sciences and the Communication Center of the Population Institute on the subject of the role of TV programs in informing the public of the population crisis. George Gent, “TV Role in Population Crisis Assayed,” *New York Times*, March 16, 1972, 94.

theme” as humanity “entering an era of ecological limits.”⁹⁹ By the late 1970s, of course, the sense that the 1970s were an ‘age of limits’ went all the way to the top—shortly after leaving office in 1981, Carter opined that “dealing with limits” had been the “subliminal theme” running through his presidency.

In this atmosphere, the 1973 oil embargo seemed to validate the limits-to-growth thesis. In response to Israel’s attack on Syria in October of 1973, the Organization of Petroleum Exporting Companies unsheathed its “oil weapon” by ceasing exportation of petroleum to countries that supported Israel, including the United States.¹⁰⁰ The effect was immediate: the 1973 oil embargo led to a fourfold increase in the price of gasoline and major shortages of heating oil. Long lines at gas stations, hoarding, and impatient, panicked, and even violent motorists compelled Nixon to impose a number of national conservation measures that seemed to presage if not register a national decline, such as lowering highway speed limits, cutting air travel, and even darkening monuments in Washington.¹⁰¹ Occurring in the same year as the Paris Peace Accords and the humbling return of U.S. forces from Vietnam, the embargo seemed to be a sign that Americans no longer enjoyed the power and freedom to do as they please, in the international political arena as well as their local gas station. Thirty years later, some peakists still considered the embargo as one of the most influential events in their lifetime. Of all survey

⁹⁹ Riley E. Dunlap and William R. Carton, Jr., “Struggling with Human Exemptionalism: The Rise, Decline and Revitalization of Environmental Sociology,” *The American Sociologist* 25, no. 1, 8.

¹⁰⁰ As recent events in the United States have shown, the real motivation for war often remains a mystery, but many historians claim that for some OPEC nations a secondary explanation was the desire to stabilize their real incomes by raising oil prices, which would become far easier with increased leverage in the wake of asserting their power via an embargo. See Yergin 1996, 589-632.

¹⁰¹ Peter N. Carroll, *It Seemed Like Nothing Happened: America in the 1970s* (New Brunswick and London: Rutgers University Press), 118.

respondents who were at least five years old at the time of the 1973 embargo, one out of four cited it as the event that triggered their eventual conversion to peakism. Indeed, this experience of scarcity and limits, so unfamiliar to Americans born since approximately 1980, is one potential explanation for the advanced age of so many peakists, in comparison to other social movements.¹⁰²

As quickly as these Malthusian concerns appeared, so did they vanish from public discourse. By the mid-1980s, “proponents of environmental apocalypse” seemed, as Frederick Buell observed, like “a bunch of monotonal, gloomy, anti-human, neo-Malthusian purveyors of doom.”¹⁰³ Part of this caricature was sketched by conservative anti-environmentalists, but there were concrete reasons that limits-to-growth wore out its welcome. First, an acknowledgement of the limits to continued growth demanded radical, expensive changes to American life that would need to be centrally planned. While young Americans may have been open to (and indeed embraced) these kinds of changes, other groups, such as most politicians, corporations and businesspeople, were not quite as open to transforming capitalism. In comparison, other environmental paradigms, such as “ecological modernism” and “sustainable development,” maintained that environmental protection might be perfectly consistent with sustained economic growth and were thus far more appealing to most vested interests.

Second, a number of environmentalists who believed that humanity was nearing its limits of growth voiced support for measures that verged on authoritarianism, or even racism. Paul Ehrlich and other environmentalists sometimes focused their concerns about

¹⁰² Recall that the average age of respondents to my surveys was 47.

¹⁰³ Buell, 20.

overpopulation on “Third World” nations with high birth rates, especially India, and *The Population Bomb* seemed to blame some of the urban uprisings of the late 1960s on overpopulation. At times, these supporters even suggested that forced sterilization might become necessary. Third, while authors such as Ehrlich and Donella Meadows (of *Limits to Growth*) intended their predictions as catalysts for social reform and policy modifications, their critics in the mid and late 1970s focused on whether individual, short-term predictions came true. When they did not, this approach lost credibility.¹⁰⁴ As Thomas Robertson put it, the “supercharged” rhetoric of limits-to-growth “sold books and spurred people to action, but also opened environmentalists to claims of being ‘chicken littles’ and misanthropic, even racist, authoritarians.”¹⁰⁵

The election of Ronald Reagan in 1980 signaled the end of any discourse of limits. In the 1960s and early 1970s Reagan, as the governor of one of the country’s most environmentally sensitive states, preached concern for the environment, even organizing a Governor’s Conference on California’s Changing Environment in 1969. But by 1980 he and perhaps the general public had changed their tune. After a decade of being reminded of limits—to growth, to personal consumption, to military influence, and to national power—many Americans embraced Reagan’s optimistic proclamation of a new “morning in America.” Arguing that predictions of doom were often wrong, he mocked the Carter administration’s discourse of limits during the 1980 campaign, and promised in his inaugural speech that “we’re not, as some would have us believe, doomed

¹⁰⁴ Josh Eastin, Reiner Grundmann, Aseem Prakash, “The two limits debates: ‘Limits to Growth’ and climate change,” *Futures* 43, no. 1 (2011), 18. For example, *Limits to Growth* estimated (in 1972) that world lead reserves would be entirely depleted in 26 years, mercury in 13 years, silver in 16 years, tin in 17 years, natural gas in 38 years and petroleum in 31 years.

¹⁰⁵ Robertson, 11.

to an inevitable decline.”¹⁰⁶ Upon his inauguration, he ordered the immediate removal of the photovoltaic cells Carter had installed on the White House roof and proceeded to strip all federal environmental initiatives of power, funding, or both.¹⁰⁷

Faced with an administration and a general public with less interest in green issues, environmentalists replaced the limits to growth perspective with a less dramatic paradigm of change, known as ‘global environmental change.’ In the wake of erroneous Malthusian predictions, environmental groups and environmental-minded academics and authors were now more dependent on scientific justifications for actions, and in the 1980s scientists point to the destructive human impact on the natural environment, such as water contamination, acid rain, ozone depletion, and deforestation.¹⁰⁸ By the mid-1980s, then, environmentalists were again highlighting what “humans were doing to the environment, as was true when environmental quality emerged as a social problem in the late sixties,” although the apocalyptic weight of the limits-to-growth paradigm had added a global imperative to these issues.¹⁰⁹

In this global environmental change paradigm, energy issues surfaced mostly in the case of toxic spills, such as the Exxon Valdez spill in 1989. With the exception of the Gulf War, energy issues faded from the public eye in the 1980s and 1990s. Once again, the price of oil was a weathervane: between 1979 and 2000, the average national price of

¹⁰⁶ Ronald Reagan, inaugural address, January 20, 1981.

¹⁰⁷ See Jeffrey K. Stine, “Natural Resources and Environmental Policy,” in W. Elliott Brownlee and Hugh Davis Graham, eds., *The Reagan Presidency: Pragmatic Conservatism and Its Legacies* (Lawrence: University Press of Kansas, 2003).

¹⁰⁸ See Frederick H. Buttell, Ann P. Hawkins and Alison G. Power, “From limits to growth to global change: Constraints and contradictions in the evolution of environmental science and ideology,” *Global Environmental Change* 1, no. 1 (1990): 57–66.

¹⁰⁹ Shane Mulligan, “Energy, Environment, and Security: Critical Links in a Post-Peak World,” *Global Environmental Politics* 10, no. 4 (2010), 84.

a gallon of gas hovered between \$0.94 and \$1.40 (adjusted for inflation), with a small jump in 1990-1991 during the Gulf War.¹¹⁰ The unpredictable and high prices of the 1970s created an incentive to search for new fields and develop new drilling and refining technologies.¹¹¹ This period of stability was due to the diversification of imported oil enabled by new sources, especially from Mexico, the North Sea (England, Norway, Denmark and Germany) and, in the 1990s, Russia. The geopolitical importance of oil surfaced during the Gulf War, however, when some Americans questioned their country's benevolence.¹¹² Iraq's invasion in of Kuwait in August of 1990 in order to control Kuwait's largely untapped oil fields, and the U.S.-led international defense of a sovereign nation was certainly justified under international (and moral) law. However, there were any number of similar regional conflicts in other locations that the U.S. ignored, which suggested to some critics that one of President H.W. Bush's motives was to assert American power in the oil-rich Middle East.¹¹³

By the 1990s, gas prices were once again low and stable, the United States firmly in control of global political hegemony and far removed from fears of scarcity. Abundance and optimism were once again the order of the day. Behind the neoliberal stewardship of the Clinton administration and the financialization of the U.S. economy, the expectation of continued economic growth now assumed the form of collective investment in the stock market. By this time, few questioned the alchemy of

¹¹⁰ United States Department of Labor, Bureau of Labor Statistics. Adjusted for inflation.

¹¹¹ Yergin 1996, 715-744.

¹¹² See, for example, Robert A. Hackett and Yuezhi Zhao, "Challenging a Master Narrative: Peace Protest and Opinion/Editorial Discourse in the US Press During the Gulf War," *Discourse & Society* 5, no. 4 (1994): 509-541.

¹¹³ For example, see Stephen C. Pelletiere, *Iraq and the International Oil System: Why America Went to War in the Gulf* (New York: Praeger, 2001).

growthmanship, and so relatively few wondered whether the continuing rise of Internet and technology stocks and home prices could continue to rise indefinitely, and at what cost. (Larry Summers, then serving as Clinton's secretary of the treasury before becoming Barack Obama's chief economic advisor, declared emphatically that the Clinton administration would not "accept any 'speed limit' on American economic growth."¹¹⁴) The motivation industry described in the last chapter, buoyed by the new school of positive psychology, became a cultural force, with many corporations training their workers to be positive team players. Techno-optimists argued that computer technologies had created an American "productivity miracle," and predicted this trend to continue deep into the "roaring 2000s."

This historical context, with its ebb and flow of abundance and scarcity, helps us understand the reactions to that many peakists provoked in the last chapter. Concerns over limits to economic growth, capitalism and American power seemed to have disappeared from the national discourse in the early 1980s, but they reappeared in the mid-2000s in the discourses of peak oil and climate change. As a peakist in her late fifties said, "I started trying in '74 to talk to people about resource depletion, and people thought I was out of my mind, so I quit discussing [it] until 2005, when it became acceptable in some circles."¹¹⁵

Crying Wolf: The Legacy of Malthusian Environmentalism

¹¹⁴ Collins, 227.

¹¹⁵ Respondent 9688522.

By 2002, when ExxonMobil commemorated the thirtieth anniversary of *Limits to Growth* in a print advertisement, their rejection of the idea that “our current lifestyles and use of raw materials are unsustainable” and assertion that the Club of Rome was “wrong” would have been accepted by most Americans.¹¹⁶ By the 1990s, these and other Malthusian environmental concerns were considered, in hindsight, to be distant historical events worthy of a smirk, if not cynical attempts to impose some kind of environmental autocracy. If my students are at all typical, most Americans born since the early 1980s are not even aware of this Malthusian moment of the late 1960s and early 1970s, so thoroughly was the doctrine of economic growth reasserted and accepted in the 1980s by liberals and conservatives alike.

Nonetheless, this historical moment and its seemingly failed predictions were hardly forgotten. Instead, the Malthusian moment of the late 1960s and early 1970s constitutes the backdrop for understanding the failure of environmental actors to convince Americans to respond to warnings about climate change as well as resource depletion, and their attendant lessons about recognizing and heeding limits. The stereotype of the environmental apocalyptic prophesying the end of the world (figure 2.6) has become a cultural archetype, and as such implicitly argues against heeding the most recent warnings. So it is that one legacy of America’s “Malthusian moment” was widespread environmental skepticism, which conservatives and anti-environmentalists have exploited at every opportunity. In a 2001 *Wall Street Journal* op-ed, for example, Philip Stott could argue that global warming was merely a “new myth [that] was seen to encapsulate a whole range of other myths and attitudes that had developed in the 1960s

¹¹⁶ Exxon Mobil Corporation, “Limits to Growth?” *New York Times*, July 25, 2002, A17.

and 1970s, including ‘limits to growth,’ sustainability, neo-Malthusian fears of a population time bomb, pollution... and an Al Gore-like analysis of human greed disturbing the ecological harmony and balance of the earth.’¹¹⁷



Fig. 2.6: A cartoon in the *Washington Times* mocks Al Gore’s September 2011 24-hour webcast, “24 Hours of Climate Reality,” which highlighted the global consequences of anthropogenic climate change.¹¹⁸

¹¹⁷ Philip Stott, “Hot Air + Flawed Science = Dangerous Emissions,” *Wall Street Journal*, April 2, 2001, A22.

¹¹⁸ Alexander Hunter, *The Washington Times*, September 16, 2011, <http://www.washingtontimes.com/news/2011/sep/16/gores-bore-a-thon/#ixzz2TIVdELcK>. Accessed May

A discourse of “limits,” closely tied to the contemporary fossil fuel energy regime, returned to the mainstream in the 2000s. Although most advocates of peak oil tended to stress oil depletion above all other issues, a surprising number of mainstream environmentalists subscribed to peakism. For example, in *Eaarth: Making a Life On a Tough New Planet* (2010), Bill McKibben quotes liberally from peakist author Richard Heinberg; describes the long decline of energy-returned-on-energy-invested (EROI) for global oil production; quotes James Schlesinger as saying that “the battle is over, the oil peakists have won”; and suggests, along with most peakists, that one cause of declining home prices in suburbia is the rising cost of gasoline.¹¹⁹ In a discussion of how the petroleum industry is responsible for one quarter of leaked toxic materials in the United States, the 2010 second edition of Sandra Steingraber’s classic *Living Downstream: An Ecologist’s Personal Investigation of Cancer and the Environment* (1997) claims that global oil production “has peaked, or is peaking, or will peak soon.”¹²⁰ In 2007, James Hansen, one of the most influential and well-known climatologists in the world, co-authored an article on the potential impact of peak oil scenarios on future climate change.¹²¹

19, 2013. The accompanying article concludes that “the more Mr. Gore speaks, the more the public realizes the only thing warming up is the hot air surrounding the climate change issue,” and the cartoon identifies him in the tradition of the sidewalk apocalyptic, whose predictions have always failed to materialize, and thus always will. The connection with a Ron Paul figure in the bottom show that environmental claims are merely another form of bogus apocalypticism.

¹¹⁹ Bill McKibben, *Eaarth: Making a Life On a Tough New Planet* (New York: Henry Holt, 2010), 27-33.

¹²⁰ Sandra Steingraber, *Living Downstream: An Ecologist’s Personal Investigation of Cancer and the Environment* (Philadelphia: Da Capo, 2010), 117.

¹²¹ Kharecha A. Pushker and James E. Hansen, “Implications of ‘Peak Oil’ for Atmospheric CO₂ and Climate,” Cornell University Library (Open Access), NASA Goddard Institute for Space Studies and Columbia University Earth Institute.

More importantly, mainstream environmentalists began returning to a discourse of limits in the mid-2000s, especially in describing climate change. Desperately seeking a way to communicate the gravity of the climate change crisis, which already produces, according to Christian Parenti, an estimated 300,000 deaths every year, environmentalists have turned to limits and depletion as one strategy.¹²² In this conceptualization, the limit to growth—or even survival—is not an energy source but an energy sink. Carbon sinks, such as oceans, forests, and soil sequester the carbon dioxide emitted fossil fuel consumption, and thus provide a crucial buffer against even more rapid climate change. Previously not widely understood, scientists and environmentalists are now warning that the ability of carbon sinks around the world to store carbon dioxide might be declining.¹²³

By 2012, the gravity of climate change motivated mainstream environmentalists to return full circle to the mathematical predictions of *Limits to Growth*. Bill McKibben and his organization 350.org kick-started his “Do the Math” campaign with a widely read article in *Rolling Stone*. Since “pictures of those towering wildfires in Colorado” and “the size of your AC bill” hadn’t convinced the average reader of the urgency of action, McKibben delivered “three simple numbers that add up to global catastrophe,” along with the kind of specific predictions that environmentalists had eschewed since the 1970s. Arguing that *if* oil companies go on to extract and sell their 2,795 gigatons of “proven” oil and gas reserves, worth \$27 trillion at today’s market value, the resulting

¹²² Christian Parenti, *Tropic of Chaos: Climate Change and the New Geography of Violence* (New York: Nation Books, 2011), 7.

¹²³ See, for example, A. P. Ballantyne, C. B. Alden, J. B. Miller, P. P. Tans and J. W. C. White, “Increase in Observed Net Carbon Dioxide Uptake by Land and Oceans During the Past 50 Years,” *Nature* 488, 70-72; M. I. Saunders, Leon, J., Phinn, S. R., Callaghan, D. P., O’Brien, K. R., Roelfsema, C. M., Lovelock, C. E., Lyons, M. B. and Mumby, P. J., “Coastal Retreat and Improved Water Quality Mitigate Losses of Seagrass from Sea Level Rise,” *Global Change Biology*, 2013, 10.1111/gcb.12218.

warming would exceed what scientists (at the Copenhagen climate conference in 2009) consider the bottom line of global warming, 2 degrees Celsius (3.6 degrees Fahrenheit), by a factor of *five*.¹²⁴

The purpose of engaging this limits discourse was to erase the frustrating requirement of emphasizing likelihood and probability—risk, above all—instead of certainty in predicting the effects of our actions from environmental communication. “Before we knew these numbers,” McKibben wrote, “our fate had been likely. Now, barring some massive intervention, it seems certain.” His clarion call was cogent, persuasive, and moving, relying on scientific consensus to deliver an emotional appeal for action, just as *The Population Bomb* and *Limits to Growth* had in their time. However those earlier jeremiads, or rather the popular misunderstandings of their messages, had damaged the credibility of environmentalists. McKibben, Gore, and other scientists and environmentalists were simply slotted into the long line of sidewalk prophets with failed predictions.

Limits, Regulations, and Markets

If historical connotations have tarnished the *discourse* of limits in the United States, we should remember that limits themselves are fundamental to any environmental perspective. As Richard McNeil Douglas put it, “while environmentalism means different things to different people, almost all its forms are united by a central core

¹²⁴ McKibben, “Global Warming’s Terrifying New Math,” *Rolling Stone*, July 19, 2012, 1.

premise: that nature imposes physical limits to human consumption.”¹²⁵ In the 1980s and 1990s, environmentalists continued to push for limits, but they shifted their rhetoric to one of “regulation” and “protection.” As our historical perspective on abundance and scarcity in twentieth century American history shows, an opposition to “limits” is partially psychological. An opposition to “regulation” or “environmental protection,” as environmentalism was often framed in the 1980s, is another matter.

The connections between abundance and scarcity, on one hand, and regulation and free market neoliberalism, on the other, are not hard to tease out. In response to the new wave of regulation in the 1960s and early 1970s, such as the creation of the Occupational Safety and Health Administration and the Environmental Protection Agency, corporations began to systematically organize and lobby against regulatory expansion. They did so primarily by borrowing arguments advanced by emerging libertarian think tanks about the magic of the free market, which would, in their perfect state of affairs, require no regulation whatsoever. But while true market fundamentalists might argue that the free market can account for scarce resources better than any government regulator, this claim does not carry the same weight for the average American. Crucial resources that are also scarce seem to demand government intervention of some sort. Resources that are available without limit, however, require none.

The tension between environmental awareness, which by necessity recognizes and respects the limits of the planet, and a belief in “America unlimited” is not a historical or

¹²⁵ Richard McNeill Douglas, “The Ultimate Paradigm Shift: Environmentalism as Antithesis to the Modern Paradigm of Progress,” in Stefan Skrimshire, ed., *Future Ethics: Climate Change and Apocalyptic Imagination* (London: Continuum: 2010), 200.

hypothetical question, but a factor in our lack of response to contemporary environmental challenges, including climate change. If this balance seemed to be moving one way in the “Malthusian moment” of the early 1970s, by the 1980s the scale had been pushed in the opposite direction by the heavy finger of a previously-fringe, now-ascendant political philosophy of libertarianism. With wealthy backers and a champion in Ronald Reagan, corporate interests, libertarians, and neoliberals promoted a resurgent vision of an America without limits, and thus without any need for regulation.

As we will see in the next chapter, by the mid-2000s, when the peak oil movement formed around a vision of impending scarcity, libertarian influence, filtered through decades of talking points about the inefficiency of “big government” as well as the “cyber-libertarianism” of the Internet, would have an influence far beyond political philosophers, think tanks and policy-makers.

Chapter 3: Alone Together: The Libertarian Shift and the Network Effect

What depresses me about peak oil is ... the individualistic survivalist streak in it. (Australian male, 36-40)

I tried talking with my husband. He got angry and accused me of being negative and said we're too old to change and we might as well curl up and die... I just keep looking for community—mostly on line. (White female, politically “progressive,” Minnesota, 56-60)

This is a time for individuals and their networks, not for groups. (Barry Wellman)¹

In this chapter, I provide two interconnected explanations for the individualism of peak oil believers described in chapter 1. I view their response to the threat of environmental crises in the context of a major transformation in American political culture over the last three decades that has not received sufficient attention: the spread of libertarian ideals. Increasingly, Americans of all parties and persuasions conceive of themselves and their citizenship in distinctly libertarian terms—individualistic and private—and this has had a major impact on politics and social life in the United States. By examining the history of libertarian thought alongside the growth of the Internet over the last thirty years, this chapter argues that this shift has been accelerated by the use of Internet technology, and that the peak oil phenomenon, as a primarily virtual movement, demonstrates the tendency of the Internet to foster a culture of what sociologist Barry Wellman has called “networked individualism.” As a result of these two currents, the peak oil movement developed in the mid-2000s not as a collective social or political movement, but as a group of like-minded but isolated individuals. Peakists formed an

¹ Respondents 9576274 and 9601959. Barry Wellman, “Little Boxes, Glocalization, and Networked Individualism,” in Mokato Tanabe, Peter van den Besselaar and Toru Ishida, eds., *Digital Cities II: Computational and Sociological Approaches* (Berlin: Springer, 2002), 334.

impressive virtual community of believers, but most felt, in the words of Internet scholar Sherry Turkle, “alone together.”²

In June 2009, I drove to Sandpoint, Idaho to visit the Sandpoint Transition Initiative (STI). The second Transition Town in the United States, Sandpoint had been held up as a model of the Transition Initiative, a collective response to peak oil and climate change, by a number of survey respondents. It had even received national press. In a *New York Times* feature in 2008, it was portrayed as a promising, bustling coalition of energy-inspired communards. Author Jon Mooallem described the opening event of STI, its “Great Unleashing,” and a color photograph depicted thirty dedicated activists meeting on the stage of the baroque Panida Theater. A “new chapter of a worldwide environmental movement” was apparently at hand.³

Collective and Individual Responses

On the website of Transition U.S., the coordinating body for the American Transition movement in the United States, one views a crowded map of official Transition Towns. As of this writing, there were 139 Transition Towns and another 294 groups that were officially “mulling” the proposition.⁴ However, the site does not clarify exactly what it meant to be designated a “Transition Town,” beyond having a few committed activists. The phrase suggests the physical construction of separatist communities, the transformation of urban areas, or even both. Indeed, the Transition

² Wellman 2002. Sherry Turkle, *Alone Together: Why We Expect More From Technology and Less from Each Other* (New York: Basic Books, 2011).

³ Jon Mooallem, “The End Is Near! (Yay!),” *New York Times*, April 16, 2009, 28.

⁴ “Transition US,” <http://www.transitionus.org/transition-towns>. Accessed May 19, 2013.

Initiative's original endeavor, in Totnes, England, seemed to be well on its way to creating parallel structures that could challenge, supplement, or supersede petroleum-dependent institutions, going so far as to print its own currency.⁵ While a number of scholars in the field of geography had picked up on the Transition movement, they had primarily analyzed its British incarnations, and few paid any attention to its low participation in the context of the broader peak oil movement.⁶

The Sandpoint Transition Initiative (STI) was not quite at Totnes' stage of development. According to one participant, there were only six people still involved with the central STI body just three years after its founding. They met once a month, each subcommittee involved in its own projects. The group's greatest accomplishment was a community garden that rented beds to forty different people, but most gardeners weren't even aware this was an STI project. Gaea Swinford, an STI activist and board member of Transition U.S., noted that Sandpoint's history as a town with a vibrant hippie subculture and strong community involvement meant that "a lot of this work has been going on for years and years, it just doesn't call itself 'Transition.'"⁷

In the U.S., as Mooallem himself noted, "the American arm of the movement [was] expanding far faster than it is accomplishing anything." While an impressive 12-

⁵ "Towns Banking Their Own Currency," *BBC News*, April 2, 2008, http://news.bbc.co.uk/2/hi/uk_news/wales/south_west/7326212.stm. Accessed May 15, 2012.

⁶ These articles have received special attention in British scholarship. See, for example, Peter North, "Eco-localisation As a Progressive Response to Peak Oil and Climate Change: A Sympathetic Critique," *Geoforum* 41, no. 4 (2010): 585-594; Ian Bailey, Rob Hopkins, Geoff Wilson, "Some Things Old, Some Things New: The Spatial Representations and Politics of Change of the Peak Oil Relocalisation Movement," *Geoforum* 41, no. 4 (2010): 595-605; J.P. Evans, "Resilience, ecology and adaptation in the experimental city," *Transactions of the Institute of British Geographers* 36, no. 2 (2011): 223-237; Amanda Smith, "The Transition Town Network: A Review of Current Evolutions and Renaissance," *Social Movement Studies* 10, no. 1 (2011): 99-105.

⁷ Interview with Gaea Swinford, June 6, 2011.

22% of my respondents had been active in Transition Towns, most added that they had actually only been to one or two meetings. An Illinois man, for example, said, “I did go to the kickoff (er, ‘Great Unveiling’) of our local Transition Town group, but haven't really been involved with it,” while a Colorado woman “attended one local meeting last summer. The group did not seem very stable.” A Wisconsin woman who had “moved to [a] smaller area than where [she] used to live” so as to drive less said, “I have recently joined a peak oil group, but do not attend meetings. I enjoy the listserv and discussions, though,” and a Texan reported that he had attended a Transition meeting only “once. I was impressed with the purposelessness of the exercise, other than emotional catharsis.”⁸ One observer who had been active in or visited Transition Towns dismissed the movement (off the record) as mere “window dressing,” and others seemed to second this analysis.⁹

The vast majority of participants in the peak oil movement were well-aware that individualistic responses to impending (and current) environmental crises would be ineffective. As Richard Heinberg put it in *The Party's Over: Oil, War and the Fate of Industrial Societies* (which three out of four peakists had read), “the strategy of individualist survivalism will likely offer only temporary and uncertain refuge during the energy downslope. True individual and family security will come only with community solidarity and interdependence.” Or, as a teenager from Kentucky put it, “we need to stick to community in order to prosper” during the expected peak oil crisis,” instead of

⁸ Respondents 9590659, 9591372, 9584855, 9602174.

⁹ This analysis is not intended to detract from the Transition Initiative movement, which is certainly vibrant in some areas, but to point out that in the United States it can function as a Potemkin village for communitarian-minded observers.

becoming “insular individuals.” However, a number of respondents noted that the rhetoric of community response was quite different from what they themselves had witnessed. One frustrated man, an Illinois resident in his early 50s who thought the peak oil phenomenon most closely resembled a “group of unrelated individuals following their own goals,” asked, “pray tell, where are there any real transition towns or sustainable communities? Amish is about all I've ever seen.” A socialist from Oregon complained that “the ‘community’ talk is not matched yet by” concrete actions. While almost all respondents pointed to the need for a collective response to ecological crisis, few had real-world experience to speak of.¹⁰

The lack of collective action becomes apparent when we consider the number of peakists who had never physically met another believer but made significant changes to their lives, such as the following:

I moved out to my land in the country, grow a garden, planted fruit trees, keeping the old car, added insulation to the house, planted shade trees. etc.

Personal preparations -- food storage, gardening skills, tree planting.

I've terminated my studies and developed skills to allow me to be self-employed in a profession that I enjoy and which stimulates me. I've decided against having children... It has affected what I look for in a partner (peak awareness).

I moved 6 years ago, researched cities with the best water quality and furthest from nuclear reactors and not on the ocean. I now own a very efficient organic farm, and have hybrid vehicles, soon to be totally electric. I have been converting to wood, installing solar panels, not purchasing gasoline appliances.

¹⁰ Heinberg, 214. Respondents 9567268, 9567956 and 9592645.

[Planted a] garden, root cellar soon, small wood lot, improving home insulation, just installed wood stove... building wood gassifiers [*sic*] for transport/backup power/homestead chores.

I gave up my car and ride a bike everywhere now. I installed a little solar and i take steps to try to prepare for the coming squeeze.

Downsized, moved closer to urban area, bought a home with solar panels, set up food storage, kitchen garden, raising rabbits for food. Looking at farmland.

Invested in physical gold and silver. Left the stock market.

Learned a traditional trade. Started a kitchen garden; learned gardening. Learned permaculture, put it in practice.¹¹

These significant yet solitary preparations were not anomalies. For the most part, peakists “prepped” alone: almost three quarters had begun stockpiling food, over a third had purchased a more energy-efficient car, one out of four had moved to a smaller or more energy-efficient home, and one out of five had changed their occupation.

While comparing different historical periods is a hazardous enterprise, we should remember that considerations similar to “peak everything” have sparked a number of collective responses or political movements in recent American history. For example, activism around environmental and population concerns, another “limit to growth” that is often cited by peakists, were major factors in the development of many communes and utopian communities in the 1960s. Environmental historian Adam Rome noted that “especially in the countryside... many of the hippies were not just seeking to commune

¹¹ Respondents 9563196, 9559395, 9562254, 9568949, 9565756, 9682014, 9591372, 9592893.

with nature. They also were motivated by apocalyptic visions of the collapse of industrial civilization.”¹²

In the 1970s and 1980s, fears about a different energy source, nuclear power, led tens of millions of Americans to participate in protests against the nuclear power plant industry. Apocalyptic environmentalism and a similar belief in the inability of traditional politics to achieve an ecological transformation have also motivated a number of radical environmental groups, such as Earth First!. One survey respondent drew these comparisons explicitly, noting that “the problem of peak oil, like overpopulation and nuclear proliferation, is about collective action and long term planning. The problem is not a shortage of hydrocarbons but a shortage of wisdom.”¹³

These very different responses to similar fears in recent American history suggest the different routes that peakist concerns in the 2000s might have taken. Most peakist responses can be considered individualistic according to a definition of “individualism” that stresses “personalism,” which Paul Lichterman defined as a way of thinking that “upholds a personal self that lives with ambivalence towards, and often in tension with, the institutional or communal standards that surround it.”¹⁴ Personalism is differentiated from narcissism or selfishness in that the personalist individual does not necessarily participate any less in social life or community activities, but “favors and conducts a

¹² Adam Rome, “‘Give Earth a Chance’: The Environmental Movement and the Sixties,” *The Journal of American History* 90, no. 2 (2003), 544.

¹³ See Martha F. Lee, *Earth First!: Environmental Apocalypse* (Syracuse: Syracuse University Press, 1995). Respondent 9686274.

¹⁴ Paul Lichterman, *The Search for Political Community: American Activists Reinventing Commitment* (Cambridge: Cambridge University Press, 1996), 6.

fundamentally individualized relationship to any such community.”¹⁵ (Personalist individualism also draws a sharp line around the “nuclear” family, and reflects, as I discuss in chapter 5, a conception of the individual buttressed by conservative, race-based notions of masculinity.) Although this type of individualism may appear to be “simple human nature” to some Americans, cross-cultural studies make clear that “the emphasis on personal development and personalized initiative” is not shared equally by all cultures.¹⁶ Communitarian authors such as Amitai Etzioni argue that this type of individualism, more conducive to therapy or personal support groups than political engagement, has been on the rise since the 1970s.

The Libertarian Shift

Scholars such as Robert Bellah and Robert Putnam have discussed the rise of individualism over the last three decades in great detail (see Introduction), but my study of the peak oil movement suggests that there is a largely ignored political dimension to the changes they observed. To understand the personalist individualism of peakists and other virtual communities, we need to explore the rise of libertarian political ideals in the United States. While most Americans publicly identify as “conservative” or “liberal,” recent polls show that the number of Americans who would identify as “libertarian” has been growing steadily over the last two decades. According to a 2009 poll, for example, 59 percent of Americans described themselves as “fiscally conservative and socially

¹⁵ Felicia Wu Song, *Virtual Communities: Bowling Alone, Online Together* (New York: Peter Lang, 2009), 115.

¹⁶ Lichterman, 6, 19. See, for example, Sulamith H. Potter, “The Cultural Construction of Emotion in Rural Chinese Social Life,” *Ethos* 16, no. 2 (1988): 181-208.

liberal,” which only drops to 44 percent if the position is described as “fiscally conservative and socially liberal, also known as libertarian.”¹⁷ Another survey showed that from 2001 to 2009, the number of Americans who want less “government intervention” and less “promotion of social values from the government” had increased by roughly 35%. In 2011, the *New York Times* created a “libertarian index” that measures social liberalism and economic conservatism, and showed a nearly 30% increase since 1993 in this libertarian nexus.¹⁸

A discussion of libertarianism requires a brief definition and a short historical detour. The core political value for libertarians is the liberty of the individual, who should be free to live his life any way he chooses, as long as he does not violate the equal rights of others. Private property is considered sacrosanct, and government’s only responsibility is to protect it, prevent fraud, and ensure the successful function of free markets. Government should never impinge on the rights of the individual, especially in the removal of private property—some libertarians consider taxes that fund anything except national defense to be a form of theft.¹⁹

While conservatism has received a great deal of attention in recent scholarship, the focus on the conservative *movement* can potentially obscure the extent to which their

¹⁷ David Kirby and David Boaz, “The Libertarian Vote in the Age of Obama,” Cato Institute Policy Analysis No. 658, January 21, 2010. Although the Cato Institute, as a libertarian think tank, does have a stake in presenting libertarianism as a political philosophy with wide appeal, the methodology used in this article appears to be without bias.

¹⁸ Nate Silver, “Poll Finds a Shift Toward More Libertarian Views,” *New York Times*, June 20, 2011, <http://fivethirtyeight.blogs.nytimes.com/2011/06/20/poll-finds-a-shift-toward-more-libertarian-views>. Accessed March 28, 2012.

¹⁹ William E. Hudson, *The Libertarian Illusion: Ideology, Public Policy, and the Assault on the Common Good* (Washington, D.C.: CQ Press, 2008), 1-21. While Hudson is clearly critical of libertarianism, his opening description of its basic tenets is relatively even-handed. A more partisan and certainly more positive description can be found in Brian Doherty’s *Radicals for Capitalism: A Freewheeling History of the Modern American Libertarian Movement* (New York: PublicAffairs, 2007).

ideas have moved beyond self-identified conservatives. This rich history of conservatism, detailed in nearly one hundred monographs and counting, paints a now-familiar picture of grass roots, white, conservative activists mobilizing in the 1950s against desegregation and communism in groups like the John Birch Society.²⁰ In the 1960s, their concerns shifted to opposition to liberal Great Society programs and leftist movements, and the locus of the movement moved to the South, the Sunbelt, and suburbia.²¹ In the 1970s, they assumed control of the Republican Party, merged with Christian evangelicals, and first grabbed national power with the election of their standard-bearer in 1980.²²

The writing of history is often motivated by a desire to better understand the present, and this is especially the case with histories of conservatism. As Whitney Strub observed, this subject currently offers “perhaps the most fertile analytical ground available for scholars seeking to understand the contemporary United States in all its

²⁰ See Lisa McGirr, *Suburban Warriors: The Origins of the New American Right* (Princeton: Princeton University Press, 2001); Kevin M. Kruse, *White Flight: Atlanta and the Making of Modern Conservatism* (Princeton: Princeton University Press, 2005); Thomas J. Sugrue, *The Origins of the Urban Crisis: Race and Inequality in Postwar Detroit* (Princeton: Princeton University Press, 1996); Joseph Crespino, *In Search of Another Country: Mississippi and the Conservative Counterrevolution* (Princeton: Princeton University Press, 2007). Indeed, some historians argue that instead of seeing conservatism as a social movement that took power from normative New Deal liberalism, we should view that liberalism itself as a mere interregnum in what has always been a conservative country.

²¹ See Ronald P. Formisano, *Boston Against Busing: Race, Class, and Ethnicity in the 1960s and 1970s* (Chapel Hill: UNC Press, 1991); David Farber and Jeff Roche, *The Conservative Sixties* (New York: Peter Lang, 2003); and Rebecca E. Klatch, *A Generation Divided: The New Left, the New Right, and the 1960s* (Berkeley: University of California Press 1999); Ronnee Schreiber, *Righting Feminism: Conservative Women and American Politics* (New York: Oxford University Press, 2008); Donald T. Critchlow, *Phyllis Schlafly and Grassroots Conservatism: A Woman’s Crusade* (Princeton: Princeton University Press, 2005); Robert O. Self, *American Babylon: Race and the Struggle for Postwar Oakland* (Princeton: Princeton University Press, 2003).

²² See Steven P. Miller, *Billy Graham and the Rise of the Republican South* (Philadelphia: University of Pennsylvania Press, 2009); Julian E. Zelizer and Bruce J. Schulman, eds., *Rightward Bound: Making America Conservative in the 1970s* (Cambridge, MA: Harvard University Press, 2008).

circumlocutory political perversity.”²³ The flood of histories of conservatism were motivated by the desire of mostly liberal social historians to understand the “puzzle” of how conservatives came to power and unexpectedly interrupted the tide of progress and equality that some had expected in the wake of the “rights revolutions” of the 1960s and 1970s.²⁴ A second wave of scholarship is rightly beginning to question why conservatives failed to achieve many of their objectives, such as rolling back New Deal and Great Society programs.

While acknowledging that the Right had limited power to govern as it might have wished, we should not forget that conservatives came to possess something approaching intellectual hegemony in the early twenty-first century United States, and we might begin to turn our attention from the various *causes* of the rise of conservatism to its *effects*. Assessing the impact of “conservative” ideals requires that we define them, of course. Although the concerns of conservatism, rhetorical and substantive, public and private, have changed over time, there are a number of core aspects of conservatism that have remained relatively consistent for nearly half a century.²⁵ They include anti-communism, opposition to movements for racial and gender equality, a commitment to “traditional”

²³ Whitney Strub, “Further Into the Right: The Ever-Expanding Historiography of the U.S. New Right,” *Journal of Social History* 42, no. 1 (2008), 193.

²⁴ On the rise of conservatism as a “puzzle,” see Stephen Tuck, “The New American Histories,” *The Historical Journal* 48, no. 3 (2005), 826; and Julian Zelizer, “Reflections: Rethinking the History of American Conservatism,” *Reviews in American History* 38, no. 2 (2010), 387.

²⁵ Some scholars, such as Hyrum Lewis, have argued that the definition of what count as ‘conservative’ ideas has changed so much from the 1950s to the 2010s that it cannot be defined as one coherent movement. While I second this caution against essentializing, I believe that the Right has had a number of core principles that have remained relatively static, even if they have been more or less prominent over time. Lewis, “Historians and the Myth of American Conservatism,” *The Journal of The Historical Society* 12, no. 1 (2012): 27-45.

sexual norms, and a libertarian (free market) approach to economics.²⁶ Of these core principles, historians have paid the most attention to the role of “social issues”— perspectives on race, gender, sexuality, and so-called “family values.”²⁷ However, these are issues on which Americans have been actively fighting “culture wars” for over two decades, battles in which conservatives have not, on the whole, gained much ground.²⁸

Conservative principles of individual choice, reliance on the free market, and the need for a smaller state, are now central subjects of debate in mainstream political discourse, however. These positions have (recently) been more frequently described by scholars as “neoliberal” than “libertarian.” Libertarianism and neoliberalism share the same intellectual roots in Austrian economics, both have limitless faith in markets, and both conceive of society as a collection of rational, independent, self-interested actors. On certain issues they might be understood as two sides of the same coin: while one emphasizes market fundamentalism, the other presents a philosophy of conservative individualism that is often only implied by neoliberal policies. The two ideas do have

²⁶ Although opposition to “big government” has often been claimed as a central tenet of conservatism, numerous critics have pointed out that when in control, few conservatives have (until recently, perhaps) truly attempted to dismantle the welfare state, and that therefore the “liberal-conservative divide is not so much over whether or not to limit government, but in *what ways* to limit government—liberals favor expansion of the welfare state, and conservatives favor expansion of the military-morality state” (Lewis, 34).

²⁷ See, for example, Ronald P. Formisano, *Boston against Busing: Race, Class, and Ethnicity in the 1960s and 1970s* (Chapel Hill: UNC Press, 1991); Catherine E. Rymph, *Republican Women: Feminism and Conservatism from Suffrage to the New Right* (Chapel Hill: UNC Press, 2006); Joseph Crespino, *In Search of Another Country: Mississippi and the Conservative Counterrevolution* (Princeton: Princeton University Press 2007); Kevin M. Kruse, *White Flight: Atlanta and the Making of Modern Conservatism* (Princeton: Princeton University Press, 2005); Joseph E. Lowndes, *From the New Deal to the New Right: Race and the Southern Origins of Modern Conservatism* (New Haven, 2008). For a trenchant historical critique of the myth of traditional American “family values,” see Stephanie Coontz, *The Way We Never Were: American Families and the Nostalgia Trap* (New York: Basic Books, 2000), as well as Matthew D. Lassiter, “Inventing Family Values,” in Bruce J. Schulman and Julian E. Zelizer, eds., *Rightward Bound: Making American Conservative in the 1970s* (Cambridge: Harvard University Press, 2008).

²⁸ See Zelizer, 380.

significant differences, however. On questions of foreign policy, for example, libertarians tend toward isolationism, neoliberals toward internationalism. Even on economic issues, there are major differences. While economic neoliberalism claims that free market capitalism can provide growth, efficiency, and even prosperity for all, it recognizes that any market must be created and enforced by federal governments and international treaties. Neoliberalism therefore departs from libertarian orthodoxy, which views government interference in the market as fundamentally problematic—in the perfect libertarian world, free markets would simply occur naturally and require no regulation.²⁹ Whereas scholars have described the influence of “neoliberalism” around the globe, “libertarianism” as a political and personal philosophy is an especially strong current in American political culture.³⁰ This should not surprise us, since, as Seymour Lipset put it in his analysis of American exceptionalism, “viewed cross-nationally, Americans are the most antistatist... population among the democratic nations.”³¹

Even so, the libertarian conception of the individual as autonomous and detached was unpopular in the United States for much of the twentieth century, from the Great Depression until the 1970s. At mid-century, the dominant, consensus view among academics and politicians of all stripes was that the welfare state that emerged with the New Deal was a permanent improvement on the capitalist economic model, since it

²⁹ While this broad definition of “neoliberalism” would be accepted by most scholars, there is a great deal of disagreement about exactly how to define it. For a diversity of perspectives, see Philip Mirowski and Dieter Plehwe, eds., *The Road from Mont Pèlerin: The Making of the Neoliberal Thought Collective* (Cambridge: Harvard University Press, 2009).

³⁰ Libertarian ideas go under different names outside the U.S.—they are generally called “liberal”—but the difference here is not solely in terms of language. I explore the exceptional popularity of libertarian ideas in the United States over the next few pages.

³¹ Seymour Lipset, *American Exceptionalism: A Double-Edged Sword* (New York: Norton, 1996), 46.

softened capitalism's negative consequences, such as poverty and environmental degradation. In 1971, after taking the United States off the gold standard, President Nixon famously announced that he too was "a Keynesian." During the 1960s, however, conservative activists began to evangelize a libertarian vision of minimal government. Milton Friedman promoted libertarian ideas in best-selling books and a weekly *Newsweek* column, translating philosophy into practical policies such as school vouchers and the privatization of Social Security. These ideas moved into mainstream politics with the 1964 presidential campaign of Barry Goldwater, who inspired activists and politicians such as Ronald Reagan. Well-heeled think tanks such as the Cato Institute, the Competitive Enterprise Institute, the Hoover Institution and the Tax Foundation began churning out policy papers legitimizing what had previously been considered a fringe perspective.

Libertarianism is often considered a conservative political philosophy, but its emphasis on the First Amendment and the "civil liberties" of the individual makes it a combination of economic conservatism and aspects of social liberalism. Thus, specific libertarian ideas have intermittently appealed to leftists also. For example, in the 1970s, the counterculture adopted the libertarian rhetoric of individual free choice. The idea that social and cultural rebellion could be achieved by simply exerting individual autonomy in social matters, such as sexual identity and lifestyle (consumer) choices, paralleled the arguments that conservatives were making about economic matters. William E. Hudson observed that "while the counterculture had a strong communitarian strain" that tends to dominate the public memory of the era, its "broadest political impact was more

libertarian. The individualist, more libertarian, motto to ‘do your own thing’ had the strongest resonance among the young.”³² In this way, libertarian thought moved closer to the vital center throughout the “Me Decade” of the 1970s.

As historians such as Daniel T. Rodgers have noted, viewing the rise of libertarian ideals in the late twentieth century as merely a triumph for the conservative movement “harbors only half the truth.”³³ Part of the remaining half, then, is that some libertarian policies were suggested first by liberals—deregulation in the late 1970s is a prime example. But, perhaps more importantly, seemingly unrelated trends in American politics and culture dovetailed with a libertarian view of society. The public scandal of Watergate and Richard Nixon’s eventual resignation, for example, may have benefitted Democrats in the short-term, but over the long haul it set the stage for the precipitous decline of the public’s trust in government at all levels, which buoyed libertarian calls for smaller government. Meanwhile, the rise of what has been termed “identity politics” on the left in the 1970s and 1980s functioned to imaginatively divide “the nation” or “society” into what Rodgers called “little platoons of society,” where “the social contract shrank imaginatively into smaller, more partial contracts: visions of smaller communities of virtue and engagement—if not communities composed simply of one rights-holding self.”³⁴ In this context, a government that had less of the people’s trust, now faced with the difficulty of satisfying a heterogeneous nation with conflicting demands, lost the public battle for intellectual hegemony against a mechanism that promised a simpler, cleaner, more efficient, and less political solution to social problems: the market.

³² Hudson, 24-5.

³³ Daniel Rodgers, *The Age of Fracture* (Cambridge: Harvard University Press, 2011), 8.

³⁴ Rodgers, 198.

Although Ronald Reagan was not the libertarian that recent conservatives make him out to be (especially in foreign policy), he rhetorically promoted a libertarian agenda of individualism, deregulation and faith in the free market. Despite the very public failures of the first wave of deregulation in the 1980s—such as escalating air travel fares and the Savings and Loan crisis—Congress continued to drop regulatory restrictions left and right, including limits on credit card interest, restrictions on interstate banking, oversight of mortgage lending, and Glass-Steagall restrictions on commercial bank involvement in investment banking and stock brokerage. By the 1990s, the national discourse was not over the embrace of the market, which was a fait accompli, but over social issues and culture wars. But as scholars such as Steven Teles and Daniel A. Kenney, social conservatism remained isolated to the U.S. while libertarian think tanks “created outposts throughout the world,” advocating for neoliberal solutions under the guise of apolitical technocratic management.³⁵

The wave of deregulation continued under President Bill Clinton, an exemplar of neoliberalism, who famously claimed in 1992 that “the era of big government is over.” In the 2000s, the Tea Party succeeded in pushing libertarian ideas, such as the intention to “starve the beast” of government programs by decreasing revenue, into the American mainstream. George W. Bush relentlessly introduced the market as a central metaphor for his presidency, striving to create an “ownership society,” which portrayed each American as a Chief Executive Officer, with their very lives as investment decisions. Reagan once called Social Security the “third rail” of American politics, but the

³⁵ Steven Teles and Daniel A. Kenney, “Spreading the Word: The Diffusion of American Conservatism in Europe and Beyond,” in Jeffrey Kopstein and Sven Steinmo, eds., *Growing Apart? America and Europe in the Twenty-First Century* (New York: Cambridge University Press, 2008), 168.

campaign to privatize Social Security accounts became, in the 2010s, a public goal for Republicans. While the Occupy Wall Street movement represented one reaction to the economic recession of 2008, the Tea Party and the Republican Party have called for what most scholars would recognize as austerity measures, including increases in tax cuts, privatization, and reduction in governmental services. Although the comparison is infrequently drawn in these terms, the contrast between the U.S. and similar industrialized nations has rarely been so stark: while European governments attempt to implement austerity measures in spite of massive protests against them, the U.S. generated populist calls *for* increased austerity during the economic recession.³⁶

The libertarian shift has influenced American political culture, visions of the future, and conceptions of community, citizenship, and the self. In the last decade, a wide group of scholars have examined the relationship between “neoliberalism and everyday life,” as the title of one collection put it.³⁷ Neoliberalism and libertarianism have a similar footprint on social worlds—the libertarian conception of society as merely a collection of individuals might just as well describe the assumptions behind and consequences of many neoliberal policies. Although scholars have not performed a similar exploration of the libertarian influence on the social realm, this is potentially rich

³⁶ These calls for austerity have come primarily from Tea Party conservatives. While they may not be “popular” in that they do not have the broad support of most Americans, they are indeed “populist,” coming from not only political pundits or the moneyed elite but many average Americans. See Vanessa Williamson, Theda Skocpol and John Coggin, *The Tea Party and the Remaking of Republican Conservatism* (New York: Oxford University Press, 2012), especially chapter 2; and Binyamin Appelbaum and Robert Gebeloff, “Even Critics of Safety Net Increasingly Depend on It,” *New York Times*, February 12, 2012, A1.

³⁷ See, for example, Lisa Duggan, *The Twilight of Equality? Neoliberalism, Cultural Politics, and the Attack on Democracy* (Boston: Beacon Press, 2004) and Susan Braedley and Meg Luxton, eds., *Neoliberalism and Everyday Life* (Montreal: McGill-Queens University Press, 2010).

vein of criticism, especially in the U.S., where the tradition of individualism has led to an easy acceptance of libertarian ideas.

Libertarianism in the Peak Oil Movement

In his influential 1985 book *Habits of the Heart*, Robert Bellah and his co-authors argued that American culture had succumbed to a therapeutically self-centered narcissism that had stripped public life of its vibrancy and political possibilities. They noted that the tendency to think of the individual as outside of the framework of social institutions leaves people “without a collective context in which one might act as a participant to change the institutional structures that frustrate and limit.”³⁸ As we shall see in the next chapter, American peakists believed that the political will or ability to change the world did not exist in the U.S. In this context, the Peak Shrink’s claim that “Economic and Planetary Collapse” is actually a “Therapeutic Issue”—as opposed to a “social issue” or “political issue”—takes on a new resonance, reflecting the rise of a therapeutic culture that is certainly consonant with libertarian individualism. As political scientist Carl Boggs noted in his turn-of-the-millennium analysis of depoliticization, “whereas popular movements (civil rights, feminism, ecology, and so on) generally affirm collective values and action, the therapeutic shift tends to focus on the self in a way that detaches individuals from their social context” and thus leaves them powerless.³⁹ In such a position, all the individual citizen can do is alter his or her perspective, and address

³⁸ Robert N. Bellah, Richard Madsen, William M. Sullivan, Ann Swidler and Steven M. Tipton, *Habits of the Heart: Individualism and Commitment in American Life* (Berkeley: University of California Press, 1985), 127.

³⁹ Carl Boggs, *The End of Politics: Corporate Power and the Decline of the Public Sphere* (New York: The Guilford Press, 2000), 178.

collective problems with psychology instead of politics. Indeed, the Peak Shrink informed her readers that it is “not your job to fight [the “Panglossian disorder”]. You cannot... Maybe this year, maybe next, you may be thought of as the sane one after all.”⁴⁰

The personalist individualism that is characteristic of the libertarian shift in the United States was evident in my surveys. American peakists displayed a consistently more individualistic outlook than adherents from other countries. When asked about political or other affiliations, respondents often described themselves as individuals in flux, moving between different religious, political, local, or virtual communities, while never being fully committed to any of them. Unlike participants in other “movements,” peakists seemed to view themselves as merely a collection of like-minded individuals.

Even so, the political skepticism of peakists, which is of a piece with skepticism among most Americans, is uncommon. Although one of the typical characteristics of Americans on the left is faith in the ability of the federal government to solve social problems, peakists betrayed the anti-statist foundation of contemporary American politics in their distrust of the government. In April 2010, 21% of Americans said that most members of Congress deserved re-election; responding less than a year later to the same question, the number for peakists was 3%.⁴¹ This degree of skepticism of the ability of the federal government to manage major societal issues—whether ecological crises, healthcare, or desegregation—is considered one of the characteristics of conservatives, not what one expects from a group composed of self-identified “progressives” and

⁴⁰ “Do You Have a Panglossian Disorder? or Economic and Planetary Collapse: Is it a Therapeutic Issue?” Peak Oil Blues, <http://www.peakoilblues.org/blog/?p=132>. Accessed May 19, 2013.

⁴¹ Gallup, “Voters Issue Strong Rebuke of Incumbents in Congress,” April 7, 2010.

“socialists.” It is indicative of a tectonic realignment in American political culture that transcends party politics.

Liberal Survivalism

The individualism of peak oil believers combined two beliefs that have infrequently intersected in recent American history: survivalism and liberalism. Since the 1980s, the term “survivalist” has generally referred to groups of conservative, “marginalized, poorly-educated, lower-class white males” that had retreated from the public sphere, such as militias, the Aryan Nation and the Posse Comitatus.⁴² Although the peakist demographic was quite different, the two assemblages have their similarities. Many of the claims that sociologist Richard J. Mitchell made about survivalists in the 1990s would hold true for peakists in the 2000s. Survivalism, he wrote, “finds its niche in dramatic doubt, in a rhetoric of radical skepticism toward the prospects of contemporary institutional orders.” Believers create “discourses of pending need, speculative circumstances of crisis and concern wherein major social institutions face imminent serious erosion or total dissolution and in which survivalists themselves play central roles in reprioritized revisioning, recovery, and renewal.”⁴³ Recognizing these similarities, 38% of peakists agreed with the statement, “most responses to peak oil are a form of survivalism,” but took went to great lengths to differentiate themselves from “the

⁴² Carl Boggs, “Warrior Nightmares: American Reactionary Populism at the Millennium,” *Socialist Register* 36 (2000), 247.

⁴³ Richard J. Mitchell, Jr., *Dancing at Armageddon: Survivalism and Chaos in Modern Times* (Chicago: University of Chicago Press, 2002), 11; 10.

guns-and-ammo survivalists that you usually think of.”⁴⁴ In my surveys, there was some truth to the claim that survivalism was practiced more by those on the right—while most American peakists practiced some level of survival preparation, self-identified conservatives were more likely to have stockpiled food and other supplies than liberals.⁴⁵

The closest corollary to the peakist combination of liberalism and survivalism in recent American history is the “back-to-the-land” movement. Throughout the 1970s and 1980s, almost one million urban Americans relocated to rural homesteads to practice self-sufficiency.⁴⁶ Like peakists, most were white liberals who adopted a voluntary simplicity as a result of their radical beliefs. Back-to-the-landers even had similar motivations to twenty-first century peakists, with many citing environmental issues and overpopulation as a major factor in their decision to relocate; in one survey, 38% claimed that one of the reasons they had moved was that they “feared an economic collapse.”⁴⁷ However, back-to-the-landers were not motivated by a vision of secular apocalypse, and unlike most “survivalists” and peakists they were not “prepping” to survive an imminent crisis. As Jeffrey Jacob noted, “the back-to-the-land movement was, in its own quiet way, a broad-based protest against what the spirit of the sixties saw as the irrational materialism of urban life.”⁴⁸ They also tended to view their actions in a political light, even if they were

⁴⁴ Respondent 9707082.

⁴⁵ 64% of American respondents who described themselves as “liberal” or “very liberal” had stockpiled food, compared to 78% of respondents who were “conservative” or “very conservative.”

⁴⁶ See Jeffrey Jacob, *New Pioneers: The Back-to-the-Land Movement and the Search for a Sustainable Future* (University Park, PA: Pennsylvania State University Press, 1997).

⁴⁷ Raymond J. Coffin and Mark W. Lipsey, “Moving Back to the Land: An Ecologically Responsible Lifestyle Change,” *Environment and Behavior* 13, no. 1 (1981), 57. Most back-to-the-landers had additional motivations for moving, of course—88% said that they wanted “to get closer to nature,” while 83% wanted the “chance to grow and eat wholesome food.”

⁴⁸ Jacob, 3.

only setting an example for others and not actively engaging in political action themselves.

The peak oil movement, like the back-to-the-land movement, is a reflection of its historical moment. The back-to-the-land movement demonstrated the breadth of environmental politics that grew throughout the 1970s. Not only were Americans engaged en masse in activist groups such as Greenpeace, but, in keeping with the maxim that “the personal is political,” they transformed their personal lives to express their political and environmental beliefs. Similarly, the advent of liberal survivalism in the 2000s required two ingredients: perceived apocalyptic threats, such as resource depletion and climate change; and an individualism characteristic of conservative survivalists to become widespread enough for those on the left to turn to solitary survivalism. This individualism was partially diffused, oddly enough, through the primary social technology of our age: the Internet.

Networked Individualism

If one factor in the individualism of the peak oil phenomenon was the broad-based libertarian shift, the second, interrelated factor is just as far-reaching: the effect of Internet technology on participants in what was primarily a virtual movement. To explore the influence of the Internet on the peak oil movement, I take a brief detour through the libertarian origins of the Internet before discussing the “network effect,” the influence of Internet technology on its users.

The history of the Internet plainly reveals its connection to libertarian ideals. The interconnected network of global computers that became known as the Internet was

developed in the 1960s and 1970s by U.S. army engineers as an open, minimalist, neutral, and decentralized system. This was partially because it was designed to survive a possible nuclear strike by the Soviet Union that might destroy major military bases, but this original architecture also picked up the traces of the libertarian leanings of many early computer programmers. These architects and early users “envisioned cyberspace as a new, libertarian post-national social order,” and they created a network that would enable local control over the medium, instead of a centrally-organized, government-run network.⁴⁹ This openness allowed each user to alter the network itself, which was a revolutionary idea at that time. In this way, as Jack Goldsmith and Tim Wu put it, one can find “strains of American libertarianism, and even 1960s idealism” in “the universal language of the Internet.”⁵⁰ As one influential early designer put it, “We reject: kings, presidents, and voting. We believe in: rough consensus and running code.”⁵¹ Although much of this architecture has changed, the techno-libertarian influence of these programmers still inheres in the Internet that peakists used in 2000s.

A second convergence between computer technologies and emerging libertarian ideals occurred in the 1980s, the “information revolution” of personal computers and other communication technologies enjoyed a synergistic relationship with the libertarian rhetoric of President Reagan and other movement conservatives. As historian Philip

⁴⁹ Jeanette Hofmann, “The Libertarian Origins of Cybercrime: Unintended Side-Effects of a Political Utopia,” Centre for Analysis of Risk and Regulation, Discussion Paper No. 62, April 2010.

⁵⁰ Jack Goldsmith and Tim Wu, *Who Controls the Internet? Illusions of a Borderless World*, (Oxford: Oxford University Press, 2006), 23. For a much more detailed look at the connection between counterculture and cyberculture, see Fred Turner, *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism* (Chicago: University of Chicago Press, 2006).

⁵¹ David D. Clark, “A Cloudy Crystal Ball: Visions of the Future,” presentation given at the Internet Engineering Task Force meeting, July 16, 1992, <http://www.ietf.org/old/2009/proceedings/prior29/IETF24.pdf>. Accessed February 26, 2012.

Jenkins noted, “the flourishing technology industries—especially computing—looked like wonderful commercials for decentralization and deregulation, entrepreneurship and risk taking, heroic private enterprise and free trade.”⁵² Economic libertarians could point to companies such as Apple and Microsoft as evidence that their policies were spurring innovation and economic growth. The influence of libertarian-tinged computer culture was widespread—for example, only in the context of what observers began to call “cyber-libertarianism” could computer hackers be seen not as high-tech criminals but heroic individuals standing up to an overbearing state.⁵³ Although “not everyone who bought a computer came to believe in the free market,” of course, the libertarian mythology of the personal computer could serve as a self-fulfilling prophecy of the “network effect.” As Thomas Streeter observed,

The experience of reading about, buying, and using microcomputers created a kind of congruence between an everyday life experience and the neoclassical economic vision—the vision of a world of isolated individuals operating apart, without dependence on others, individuals in a condition of self-mastery, rationally calculating prices and technology.⁵⁴

In the 1980s, this romantic vision of the liberatory potential of personal computing was articulated to the ascendant philosophy of libertarian individualism.

⁵² Philip Jenkins, *Decade of Nightmares: The End of the Sixties and the Making of Eighties America* (New York: Oxford University Press, 2006), 193.

⁵³ See, for example, *WarGames*, John Badham, 1983; *Prime Risk*, Michael L. Farkas, 1985; *Terminal Entry*, John Kincade, 1986; *Ferris Bueller's Day Off*, John Hughes, 1986; and, in the early 1990s, *Sneakers*, Phil Alden Robinson, 1992; and *Hackers*, Iain Softley, 1995.

⁵⁴ Streeter, 88.

By the time the Internet as we know it fully emerged in the late 1990s, it had also been burnished in the fire of ascendant neoliberalism. In the '90s, the Internet faced competition from an alternative, proprietary mode of connection that is now often forgotten. Companies such as America On Line, Prodigy, and Compuserve provided access to the World Wide Web but did not interconnect, and a user on one service could not contact someone on another. They offered a very different experience: in contrast to the open content of the Internet, each decided what they would filter or what sort of chat rooms they would allow. Users had only partial anonymity, and much less control over each network. The proprietary model was eventually overwhelmed by the Internet, a civil libertarian's dream with almost no filters for content or values. Thus, the libertarian direction of the online experience, which now seems completely "natural" and removed from politics, reflected the neoliberal zeitgeist of the 1990s. The Clinton administration ensured that the Internet would remain mostly unregulated by deregulating telecommunications services and information technology products. For example, in 1997 the United States signed three major agreements with the World Trade Organization that limited regulation of the Internet. On nearly all sides of the debates on the direction of Internet communications in the early 1990s, the rhetoric of free markets held sway. For politicians, the exciting new technology "was all about unleashing entrepreneurs" and "promoting innovation."⁵⁵ In 1997, when the Clinton administration released its

⁵⁵ John Bellamy Foster and Robert W. McChesney, "The Internet's Unholy Marriage to Capitalism," *Monthly Review: An Independent Socialist Magazine* 62, no. 10 (2011), 5.

Framework for Global Electronic Commerce, it recommended that that “the Internet should develop as a market driven arena” instead of “a regulated industry.”⁵⁶

The tech industry, with its continuing libertarian streak, recognized that Internet policies of openness, decentralization, and individualism could be slotted into neoliberal policies. Its primary mouthpiece, *Wired*, the major computer culture magazine of the 1990s, promoted an ideology that Paulina Borsook has described as “technoliberalism,” even featuring Newt Gingrich on its cover.⁵⁷ Software mogul Bill Gates, in his influential 1996 book *The Road Ahead*, predicted that the Internet would finally deliver on the promise of “friction-free capitalism,” and a 1995 essay by Christopher Anderson claimed that “the growth of the Net is not a fluke or a fad, but the consequence of unleashing the power of individual creativity. If it were an economy, it would be the triumph of the free market over central planning.”⁵⁸ The notable lack of debate about the direction of the Internet at a crucial moment in its development was rightly attributed by John Bellamy Foster and Robert W. McChesney to “the digital revolution exploding at precisely the moment that neoliberalism was in ascendance, its flowery rhetoric concerning ‘free markets’ most redolent.”⁵⁹

The Network Effect

⁵⁶ William J. Clinton and Albert Gore, Jr., *A Framework for Global Electronic Commerce*, July 1, 1997. Available at: <http://clinton4.nara.gov/WH/New/Commerce/read.html>. Accessed December 4, 2012.

⁵⁷ Paulina Borsook, *Cyberselfish: A Critical Romp Through the Terrible Libertarian Culture of High Tech* (New York: PublicAffairs, 2000), 130.

⁵⁸ Christopher Anderson, *The Economist*, 1996, 97. Anderson would later become the editor-in-chief of *Wired*.

⁵⁹ Foster and McChesney, 5.

That the Internet would have an influence on its users—which would soon include most Americans—was assumed by techno-enthusiasts such as Gates and Anderson, as well as early scholars of the technology. In the first wave of scholarship in the 1990s, a number of prominent authors, such as Sherry Turkle, Robert Putnam and Robert Kraut argued that time spent online might isolate users from the “real world” and thereby weaken commitments to civic, political, and public life. The Internet, some feared, would encourage social isolation and lead to the further decline of communities of place.⁶⁰

The second wave, which lasted until the late 2000s, overturned this initial concern. Most twenty-first century media commentary and scholarship about the Internet has been characterized by a well-deserved fascination with Web 2.0 technologies, such as social media and blogs, and the changes to work, politics, and social life they have effected. In a 2009 meta-analysis of cross-disciplinary answers to the question of the network effect on political and civic engagement, Shelley Boulianne found that 33 of the 38 studies examined reported “positive” effects of the Internet on its users.⁶¹ Although the Internet was commonly blamed for a decline in attention span and provoked an intermittent moral panic around sexual predation and cyber-bullying, the media has, for the most part,

⁶⁰ Robert Putnam, *Bowling Alone: The Collapse and Revival of American Community* (New York: Simon and Schuster, 2000); Sherry Turkle, *Life on the Screen: Identity in the Age of the Internet* (New York: Simon and Schuster, 1997); Robert Kraut, Michael Patterson, Vicki Lundmark, Sara Kiesler, Tridas Mukophadhya and William Scherlis, “Internet Paradox: A Social Technology That Reduces Social Involvement and Psychological Well-being?” *The American Psychologist* 53, no. 9 (1998): 1017-31. See also N.H Nie and L. Erbring, *Internet and Society: A Preliminary Report* (Stanford, CA: Institute for Quantitative Studies of Society, 2000).

⁶¹ Shelley Boulianne, “Does Internet Use Affect Engagement? A Meta-Analysis of Research,” *Political Communication* 26, no. 2 (2009): 193-211.

“herald[ed] a new golden age of access and participation” via each new network development,” such as high-speed Internet, WiFi, Facebook, Twitter and smartphones.⁶²

At the same time, scholars in sociology and related disciplines pushed back at attempts to measure the network effect at all by emphasizing the role of “social shaping” in the study of technology.⁶³ Social shaping theory claims that technologies do not in themselves have any effects on their users; instead, scholars should investigate the way that technologies are shaped by gender, race, class, culture, and other factors. Although social shaping was an important and generative concept when it first appeared in the mid 1980s, by the 2000s the concept was often being used to foreclose on scholarship.⁶⁴ Some social shaping scholars caricatured their opponents as “technological determinists” who believed that technology was the only cause of historical change. By the mid 2000s, as Robert Hassan noted, “technological determinism” was considered “something unmentionable, a kind of proscribed thought crime, a dark and hidden ‘undercurrent’ that occasionally ‘betrays’ itself in the careless writings of some social theorists.”⁶⁵

As such, scholarship was actually lagging behind common sense recognition of the Internet’s influence, because, as Hassan himself pointed out, “at the intuitive level at least, we recognize that our becoming as one with the network society is occurring rapidly. We are everyday being offered (and are greedily accepting) deepening

⁶² Nicholas Carr, *The Shallows: What the Internet Is Doing to Our Brains* (New York: Norton, 2010), 2.

⁶³ Robert Hassan, “Social Acceleration and the Network Effect: A Defence of Social ‘Science Fiction’ and Network Determinism,” *The British Journal of Sociology* 61, no. 2 (2010): 356-374.

⁶⁴ The social shaping approach emerged in 1985, with the publication of the collection *The Social Shaping of Technology* (Donald MacKenzie and Judy Wajcman, eds., Milton Keynes, England: Open University Press, 1985). See Debra Howcroft, Nathalie Mitev and Melanie Wilson, “What We May Learn from the Social Shaping of Technology Approach” in John Mingers and Leslie Willcocks (eds), *Social Theory and Philosophy for Information Systems* (West Sussex: John Wiley & Sons, 2004).

⁶⁵ Hassan, 364.

connections with a shrinking networked world.”⁶⁶ This seemingly unquestioned acceptance of new technologies, which quickly become expected of every functioning member of society, has been labeled “technological somnambulism.”⁶⁷ Paradoxically, then, as the Internet became deeply embedded in almost every aspect of American culture, it became more difficult for scholars to write about. This is in part because many scholars fail to identify the Internet in its proper historical context—not as a series of individual new media (e.g. Facebook as a stand-alone subject) but as a system, a network of technologies that includes personal computing, the World Wide Web, social media and smartphones.⁶⁸ These are important not as isolated developments but aspects of a meta-technology that has created its own context, a system that now comprises, as sociologist Manuel Castells put it, “the social morphology of our societies.”⁶⁹

The answer to the question of the Internet’s political and social influence surely lies somewhere in between the poles of “social shaping” and “technological determinism,” of course. One must acknowledge the central roles of innovators, website developers, forum moderators, and individual users. But, as Evgeny Morozov has argued, “if technological determinism is dangerous, so is its opposite: a bland refusal to see that certain technologies, by their very constitution, are more likely to produce certain social and political outcomes than other technologies, once embedded into enabling

⁶⁶ Hassan, 367. The use of a universalizing “we” in this quote seems to ignore the digital divide, the significant class- and race-based gaps in access to technologies, even within Western industrialized nations.

⁶⁷ Langdon Winner, “Technology as Forms of Life,” in David M. Kaplan, ed., *Readings in the Philosophy of Technology* (Oxford: Rowman & Littlefield, 2004,) 103-113.

⁶⁸ One suspects that the Balkanization of academic fields and disciplines, combined with the increase in authors and scholarship, is also partially responsible here. Both trends have encouraged a focus on smaller and smaller phenomena. As a result, popular non-fiction authors, willing to make more ambitious claims at the risk of over-generalizing, have at times produced more insightful analyses of the network as a general phenomenon.

⁶⁹ Manuel Castells, *The Rise of the Network Society* (Cambridge, MA : Blackwell Publishers 1996), 2.

social environments.”⁷⁰ Although its potential for group activity has been highly touted, we should recall that the Internet is a fundamentally individualistic medium. The conceptual stalemate between “technological determinism” and “social shaping” can be fruitfully sidestepped by applying the concept of “social affordances,” which is used by scholars of technology to indicate the preferred or intended use of technologies, often reflecting the forgotten intentions of their designers. For example, while a bench can be used for a variety of purposes, it has an affordance for sitting.⁷¹ The basic physical act of accessing the Internet is worth mentioning here: alone at her computer, “it is the individual, and not the household or the group, that is the primary unit of connectivity.”⁷² Since personal computers and the Internet are used and accessed alone, by a solitary individual, they have an affordance for individualism, although they can and are used for a variety of purposes.

This affordance can be highlighted by comparing the Internet with two other twentieth-century technologies that have also had powerful impacts on their users, television and radio. Both can and are often experienced by groups of people simultaneously, such as the family in its living room experiencing the same show. In this way, they have a very different social affordance. These technologies do not have the same potential for self-expression as the Internet, since they construct identity vertically, from one (the TV show’s creators) to many (the audience). As such, they are indeed

⁷⁰ Evgeny Morozov, *The Net Delusion: The Dark Side of Internet Freedom* (PublicAffairs: New York, 2011), 295.

⁷¹ Karel Kreijns and Paul A. Kirschner, “The Social Affordances of Computer-Supported Collaborative Learning Environments,” ASEE/IEEE Frontiers in Education Conference.

⁷² Wellman, 338.

“mass media capable of constructing mass audiences and mass consciousness.”⁷³ As Ima Tubella has argued, the Internet is fundamentally different from these technologies, and instead of a mass or collective identity, it “influences the construction of individual identity, as individuals increasingly rely on their own resources to construct a coherent identity for themselves in an open process of self formation,” by choosing their applications, unique browsing path, and creating or altering web pages.⁷⁴

The basic fact of the Internet’s social affordance for networked individualism, rarely acknowledged by scholars wary of being labeled technological determinists, was recognized at some level by my respondents, who cited the movement’s reliance on the network as the most frequent explanation for its lack of collective identity. An Alabama man in his forties said that the peak oil movement must move “beyond an electronic medium and a few meetings one every blue moon,” while an Ohio civil service employee claimed that that “the nature of the Internet” means that the virtual peak oil movement is “not ‘real.’” Another respondent, in his early 30s, simply noted that “community means something different on the Internet,” while an educator in his 50s specified that the reason peakists have not formed a community is because they are “conditioned by the greater culture to behave as autonomous individuals.”⁷⁵ While the Internet can be and is used to create and enhance communities, its very design creates a social affordance for personalist individualism.

⁷³ Darin Barney, *The Network Society* (Malden, MA: Polity Press, 2004), 172.

⁷⁴ Ima Tubella, “Television and the Internet in the Construction of Identity,” Project Internet Catalunya, UOC, 2001.

⁷⁵ Respondents 9684580, 9576666, 9576729 and 9560116.

Peak Oil Online

As documented in the last chapter, the Internet enabled the very existence of peak oil as a mass phenomenon, but it also shaped the ways that believers conceived of and acted on their newfound ideology. While the Internet has been praised for its ability to create new communities and enable political action, the example of the peak oil movement shows that in some cases this new medium serves to nudge its users in an individualistic direction, reflecting the libertarian origins and design of the technology itself. On the Internet, we are not humans or citizens but “users,” increasing the tendency to imagine society as made up of abstract individuals pursuing their rational interests in a marketplace. Participants in the peakist virtual community formed strong but often short-lived ties to each other, and the paucity of face-to-face meetings had a powerful effect on this group’s struggle to form a sense of collective identity.

For the most part, the peak oil movement functioned as a virtual community, which can be defined as a group of “people with shared interests or goals for whom electronic communication is a primary form of interaction.”⁷⁶ While some peakists congregated at conferences and lectures, most communicated primarily, if not solely, through the Internet. Online, they created the rich virtual subculture described in chapter 1, with websites, blogs, Podcasts, YouTube channels, graphic novels, video games, musicals, and online forums dedicated to resource depletion, climate change and collapse. Although some of these artifacts were intended to evangelize the peak oil theory to the uninitiated, they had the most influence on hard-core believers. As Kris Can said of her

⁷⁶ Catherine M. Ridings and David Geffer, “Virtual Community Attraction: Why People Hang Out Online,” *Journal of Computer-Mediated Communication* 10, no. 1 (2004).

video blog, which included entries like “Postcard from the Future” and “Inserting Peak Oil into the Conversation,” “lots of people e-mail me about my show and discuss the different topics that I bring up. I originally thought, wow, what am I doing, I’m just preaching to the choir. And then someone said, the choir needs community too, and I thought, yes, absolutely.”⁷⁷

Most scholars have looked at virtual communities that are formed and maintained on a single website, in part because this is simply easier to do, but we have seen that the peakist community is spread over a network of locations.⁷⁸ 70% of American peakists regularly visited at least three peak oil websites, and 29% regularly checked at least *five*. Some of these have been mentioned earlier in this dissertation, but there were dozens of others that respondents brought to my attention, such as “The Oil Age,” Michael Ruppert’s “Collapse Network,” “The Archdruid Report” (“Druid perspectives on nature, culture, and the future of industrial society”), “Peak Oil Crisis,” “Decline of the Empire,” “The Post-Carbon Institute” (“Leading the transition to a resilient world”), “Malthusia,” “Silent Country,” “Peak Moment Television” (“Locally reliant living for challenging times”), “Early Warning: Risks to Global Civilization,” and “Climate Progress.”⁷⁹

To explore the kinds of discussion and community that these sites provide, we can look at “Peak Oil News & Message Boards” (www.peakoil.com). In its first eight years

⁷⁷ Interview with Kris Can. Denver, CO, November 12, 2009.

⁷⁸ Although my two surveys, which were conducted online, will necessarily show a bias towards peakists who at least have Internet access, interviews that were conducted in person showed a similar distribution of participation in peak oil websites.

⁷⁹ The Oil Age, <http://www.theoilage.com>; Collapse Network, <http://www.collapsenet.com>; The Archdruid Report, <http://thearchdruidreport.blogspot.com>; Peak Oil Crisis, <http://www.peak-oil-crisis.com>; Decline of the Empire, <http://www.declineoftheempire.com>; The Post-Carbon Institute, <http://www.postcarbon.org>; Peak Moment Television, <http://www.peakmoment.tv>; Malthusia, <http://www.malthusia.com>; Silent Country, <http://forums.silentcountry.com/forums>; Early Warning, <http://earlywarn.blogspot.com>; Climate Progress, <http://thinkprogress.org/climate/issue>. All accessed June 1, 2012.

online (2004-2011), Peak Oil News' 30,000 members made over 950,000 posts on 26,000 different topics. Over 2,000 members contributed at least twenty posts to the site.

Peakists tended to see the primary goal of their participation as information-gathering, and the busiest forums reflected their interest in facts and figures: "Economics and Finance" had over 2,700 subtopics and 100,000 posts, with "Energy Technology," "Environment" and "Planning For the Future" close behind. Common subjects in these respective fora were the impact of resource depletion on the global economy, technological developments in renewable energy efficiency, climate change, and practical steps to prepare for the coming collapse. Scattered throughout the site are frequent threads on the health and tenor of Peak Oil News itself, reflecting a general interest in the state of the virtual commons.

The popularity of the "Open Topic Discussion," with over 9,000 subtopics and 270,000 total posts, shows that adherents were not solely interested in gathering information, but sought guidance from and provided advice to strangers with whom they shared a deep connection. Friendships were formed—one out of three adherents who regularly checked at least three peakist websites reported having gained friends as a result of their activities online. The popularity of the "Medical Issues Forum," which also dealt with psychological issues, reflects the affective investment of many believers in the virtual community. The most popular thread here, with over 45,000 comments, was "My Doom-O-Meter is jittering towards max," in which posters discussed the common experience of depression and even suicidal ideation that, they said, they were often afraid to confess to their friends and family. (Because of the emotional impact of peakism, this

subject is so common that site administrators created a separate thread, “Don’t Do It,” reminding members to “Refrain from endorsing suicide. Its explicitly against the [Code of Conduct].”⁸⁰) 55% of survey respondents reported that one of the benefits of visiting peak oil websites was the emotional “comfort of knowing that other people have the same thoughts.” This fellowship was evident throughout the online forums, although it was typically expressed indirectly, in gallows humor. In the “Doom-O-Meter” thread, for example, one commenter responded to a particularly apocalyptic series of comments by writing, “I know I can always count on you all to cheer me up,” and then added, “hoping I’ve got 2-3 years... Stay calm & collected. Navigate. Trust in your preparations. Have faith. If you don’t despair, you’ll make it.” The original poster, “Heineken,” wrote back, “just terrific comments from a terrific bunch of people I sure as hell wish were my neighbors.”⁸¹

Unfortunately for “Heineken,” who had recently moved to rural Virginia, they were not his neighbors. Unlike traditional communities of place, such as neighborhood organizations or sites of worship, peakists who connected online were usually geographically distant from one another. Many were thus unable to meet other believers and create the collective or communitarian response to the perceived challenges of peak oil that they desired. A survey respondent in his late forties in Arizona wrote, with some despair, that he lived in a “flyover town” in “the middle of nowhere,” while a “liberal” septuagenarian complained that since “too few people are aware of peak oil” in his small

⁸⁰ “Don’t Do It,” Peak Oil News, <http://peakoil.com/forums/viewtopic.php?f=35&t=49470&view=unread>. Accessed October 13, 11.

⁸¹ “My Doom-O-Meter is jittering toward max,” Peak Oil News, <http://peakoil.com/forums/my-doom-o-meter-is-jittering-towards-max-t37601-15.html#p615813>. Accessed May 15, 2012.

town, so that “the only place we meet is on the net,” and many others lamented that there were no local groups in their area.⁸² Although scholars continue to debate the emotional, psychological, and political importance of communities formed over the Internet, the difficulty of transitioning to “real world” meetings that result in stronger, longer-lasting ties is widely agreed upon.⁸³ In this literature, the strength or weakness of a connection (tie) is defined as a “combination of the amount of time, the emotional intensity, the intimacy (mutual confiding) and reciprocal services which characterize the tie.”⁸⁴ While the peak oil online community provided ties that were quite strong, they were generally fleeting, and rarely transitioned into real-world friendships.

Although most of my respondents participated in online forums, not one reported having met their interlocutors in person. This is primarily because of two central features of virtual communities: voluntary participation and anonymity. Friendships or connections developed online are dependent on each participant voluntarily returning to the same forum and publicly participating. Anonymity, which provides a sense of security and freedom of debate, also makes it difficult for members to continue their connections offline unless they have specifically indicated such a desire and shared contact information, which appeared to be rare. For example, in 2008 one heavy commenter, “PenultimateManStanding,” created a thread called “I’d Like to Meet All of You,” in which he expressed his desire to do just that. After a series of responses

⁸² Respondents 9569428 and 9680437.

⁸³ See, for example, Gustavo Mesch and Ilan Talmud, “The Quality of Online and Offline Relationships: The Role of Multiplexity and Duration of Social Relationships,” *The Information Society: An International Journal* 22, no. 3 (2006): 137-148; Ines Mergel and Thomas Langenberg, “What makes online ties sustainable? A Research Design Proposal to Analyze Online Social Networks,” Program on Networked Governance, No. PNG06-002.

⁸⁴ Mark S. Granovetter, “The Strength of Weak Ties,” *American Journal of Sociology* 78 (1973), 1361.

expressed some fear that forum participants would be different in ‘real life’ from their online personas, he responded in exasperation, “Well, if nobody takes this seriously, that’s understandable. But I’m not kidding, I’d buy a ticket to meet many of you.”⁸⁵ Such a meeting does not seem to have occurred, and “PenultimateManStanding” soon stopped posting entirely. Like many others, this virtual community provided conditional ties of short durations.⁸⁶ Daniel T. Rodgers described the libertarian vision of society that emerged in the 1980s as “more voluntaristic, fractured, easier to exit, and more guarded from others,” but it is only in virtual communities that this vision came to its full fruition.⁸⁷

Although a number of scholars have argued that virtual communities can revive or even replace communities of place, they often analyze virtual communities that are actually grounded in existing, real-world connections and/or geographical proximity, such as Facebook.⁸⁸ Peakists themselves, when asked to define the peak oil phenomenon, had no trouble distinguishing it from traditional communities of place. Only twelve percent of respondents considered “community” an appropriate term for the movement, while fifty percent thought of peak oil as an “information hub,” and twenty percent considered it to be merely “a group of unrelated individuals following their own goals.” Only nine percent considered the peak oil phenomenon a “movement” at all, reflecting a

⁸⁵ “I’d Like to Meet All of You,” <http://peakoil.com/forums/i-d-love-to-meet-all-of-you-t36002.html>. Accessed May 15, 2012.

⁸⁶ See Miller McPherson, Lynn Smith-Lovin and Matthew E. Brashears, “Social Isolation in America: Changes in Core Discussion Networks over Two Decades,” *American Sociological Review* 71, no. 3 (2006): 353-375.

⁸⁷ Rodgers, 220.

⁸⁸ See, for example, Nicole B. Ellison, Charles Steinfield, and Cliff Lampe, “The Benefits of Facebook ‘Friends’: Social Capital and College Students’ Use of Online Social Network Sites,” *Journal of Computer-Mediated Communication* 12, no. 4 (2007): 1143–1168.

traditional conception of the term, based on examples such as the civil rights movement. Some reasoned that peak oil lacked “leaders,” although there were in fact a number of well-known, influential writers and speakers, such as Kunstler, Colin Campbell, Matthew Simmons and Richard Heinberg. Others pointed to the lack of a political lobby that often defines a “movement.” One commenter on Peak Oil News, responding to a 2011 thread titled “What happened to the Peak Oil Movement,” asked rhetorically, “How can Peak Oil be a movement without marches & protests?”⁸⁹

This is a generative question, although perhaps not in the way that its author intended. More vital to a social movement than hierarchies, formal structure or political lobby is the collective identity and sense of empowerment that often results from large group meetings, whether they are simple gatherings or political events. Scholars of social movements and crowd psychology alike have found that social movements often begin when people physically meet and see themselves as a collective, with shared interests and the potential to effect change. For example, one protester contacted by Jon Drury reflected on the experience of empowerment at an anti-war protest in 2001: “I think because of the amount of people there that certainly had a psychological effect and you think yeah, you know, this is going somewhere this is this is moving and this is going to build up momentum and get larger and larger, and because of that this is going to turn into something really positive.” Another protester, at an environmental action in the 1990s, reflected on his experience in a similar way: “It was empowering in the sense that after that I had a lot of energy and, you know, the feeling after that ‘Wow, you know, we

⁸⁹ “Re: What happened to the Peak Oil movement?” February 10, 2011, <http://peakoil.com/forums/what-happened-to-the-peak-oil-movement-t60782-30.html>. Accessed May 11, 2012.

can do anything.”⁹⁰ Historians of social movements have noted, time and time again, that collective actions—whether they are meetings, protests, or even riots—can have powerful effects on participants’ sense of collective identity, empowerment, and political outlook.

Individualism Online

However, this process is rarely achieved on even the busiest Internet forums. Although scholars of social movements recognize the importance of collective, physical meetings, those who study online communities have failed to appreciate the significance of *their absence* on Internet groups and virtual communities. Various aspects of the online experience have been compared to a crowd (e.g. “crowdsourcing” and “crowdfunding”), but the experience of surfing the Internet and participating in a physical crowd have very different psychological and emotional effects on their participants. Indeed, as social psychologist Tom Postmes put it, “on a continuum of social contexts ranging from individualistic to collectivistic, the Internet and the crowd are somewhere at the extremes.”⁹¹

Even when websites such as Peak Oil News publicize their membership statistics, they usually list this information in small type, hidden at the bottom of the page. If collective events such as protests provide a heightened sense of collective identification, Internet forums can have the opposite effect, partially because the only people whose presence is noted are those that actively post—so-called “lurkers,” who visit membership

⁹⁰ John Drury, Christopher Cocking, Joseph Beale, Charlotte Hanson & Faye Rapley, “The phenomenology of empowerment in collective action,” *The British Journal of Social Psychology* 44, no. 3 (2005), 317 and 320.

⁹¹ Tom Postmes, “The Psychological Dimensions of Collective Action, Online,” in Adam M. Joinson, ed., *The Oxford Handbook of Internet Psychology* (London: Oxford University Press, 2007), 165-186.

sites but do not post and are thus not visible, make up as much as 90% of traffic on some membership websites.⁹² This dwarfing effect was reflected in the number of survey respondents who seemed to believe that only a handful of people were interested in the issue of oil depletion. For example, a man from Iowa said there was “only a small group of believers,” while a Minnesota woman in her late fifties said that “Peak Oilers are too scattered to be a real community and too few to be a movement.”⁹³ Others suggested that there were only a few hundred people interested in the subject. The sense of collective identity that can be advanced by physical, face-to-face meetings is thus never achieved for participants of this virtual community. Indeed, the *potential* impact of such meetings was the subject of a number of comments by first-time attendees to the 2008 ASPO-USA conference I attended in Denver.

The lack of “real world” meetings thus led to a misperception of the number of participants, which is directly tied to the sense of political fatalism described in the Introduction and explored in greater detail in the next chapter. Each individual decision to forego political action was based, one could argue, on a rational calculation of the unpopularity of the concept of peak oil, the obstinacy of a culture of optimism and the failure of recent environmental initiatives in the United States, but many social movements begin by introducing ideas that are unknown or unpopular. As Steve Reicher and John Drury have argued, political “action depends upon a calculation that one is able to overcome the forces that protect the status quo,” and one of “the factors going into

⁹² Blair Nonnecke and Jenny Preece, “Lurker Demographics: Counting the Silent,” Conference on Human Factors in Computing Systems. The Hague, Netherlands, 2000.

⁹³ Respondents 9570685 and 9601959.

such a calculation include the size” of the group itself.⁹⁴ If one has the sense that the group is composed of a few hundred people, instead of a few hundred thousand, one will severely underestimate the group's potential “collective self-efficacy.”⁹⁵ As a result of their participation in Internet forums, instead of more traditional group events, such as mass meetings, rallies, or marches, peakists underestimated the size of their constituency, which added to their sense of political inefficacy and fatalism.

Collective Challenges, Individual Solutions

On this subject, scholars of Internet psychology and recent American politics are having similar conversations, but few have connected the Internet’s potential to be “individuating and atomizing” to the depoliticizing tendency of increasing individualism, which has been the subject of a great deal of work by scholars of neoliberalism.⁹⁶ By ascribing to the individual “relations of obligation, solidarity and concern that were once considered part of the common good,” libertarian philosophy and policies, whether packaged as neoliberalism or Tea Party Republicanism, view the collective as merely a collection of individuals. The purest distillation of this view was Robert Nozick’s claim that “there are only individual people, different individual people, with their own individual lives... Nothing more,” which Margaret Thatcher famously articulated as, “There is no society, there are individual men and women.”⁹⁷ According to libertarian

⁹⁴ John Drury and Steve Reicher, “Collective Psychological Empowerment as a Model of Social Change: Researching Crowds and Power,” *Journal of Social Issues* 65, no. 4 (2009), 720.

⁹⁵ Albert Bandura, “Exercise of human agency through collective efficacy,” *Current Directions in Psychological Science* 2000, no. 9 (2000): 75-78.

⁹⁶ Postmes, 166.

⁹⁷ Robert Nozick, *Anarchy, State and Utopia* (New York: Basic Books, 1974), 33. Jeff Popke, “Latino

and neoliberal theories, societal problems are best solved by individual action in the private sphere, not governmental initiatives. In the United States, this perspective found a historical foothold in the tradition and mythology of rugged individualism and self-sufficiency.

However, the trend towards smaller government and privatization tends to de-politicize important social, political and environmental issues, which in the contemporary globalized, interdependent world are often too large in scope to actually be dealt with by individuals. As Henry A. Giroux has argued, “as the social became individualized” in the 1980s and 1990s, “uncertainty and fear worked to depoliticize a population that is educated to believe that social problems can only be addressed through private solutions. Within such a climate, shared responsibilities gave way to shared trepidation.”⁹⁸ The only way that global problems such as resource depletion and climate change can conceivably be addressed is through national or international bodies, not by isolated individuals. By moving the locus of responsibility from government to the individual, the shift toward libertarian ideals effectively de-politicizes major social problems, and potentially cripples our ability to address them successfully.

Tracing the parallel and interrelated histories of libertarian thought and Internet effects helps us understand how the Internet has helped create the society that libertarian theorists had previously only imagined. While one might analyze the personalist individualism of the peak oil phenomenon in the context of either the libertarian shift or

Migration and Neoliberalism in the U.S. South: Notes Toward a Rural Cosmopolitanism,” *Southeastern Geographer* 51, no. 2 (2011): 252.

⁹⁸ Henry A. Giroux, “Democracy, Patriotism, and Schooling After September 11th: Critical Citizens or Unthinking Patriots?” in *The Abandoned Generation: Democracy Beyond the Culture of Fear* (New York: Macmillan, 2003), 31.

the influence of Internet technology, these two developments are best understood as having a synergistic relationship. Although the Internet has a social affordance for individualism, the cyber-libertarian conception of Internet crowds as merely a collection of rational, isolated individuals is particularly powerful when political theorists and politicians are describing society in this same vein, in the “enabling discourse” of libertarian ideals.

Without the Internet, the peak oil phenomenon would not have occurred. The possibility of impending resource depletion would probably have remained where it was in the 1990s, when only a few geologists and environmentalists were concerned about these questions. But without the Internet, concerns about oil depletion *might* have taken a very different form, by sparking a social movement demanding that the United States transition away from reliance on nonrenewable energy sources, for example, instead of the mostly individualistic responses that we saw in chapter 1. This is a counterfactual speculation, but one worth considering. As a result of the libertarian shift in American political culture and the atomizing impact of the Internet, peakists primarily responded to the threat of environmental crisis as isolated individuals, even as they acknowledged that a collective response to these environmental issues was needed. Even if we do not happen to agree with fears of imminent energy depletion, these interrelated trends have consequences beyond the peak oil movements, as I explore in the conclusion. First, in the next chapter, I further examine the political inaction of peakists by investigating the relationship between apocalyptic popular culture and political fatalism.

Chapter 4: Apocalyptic Popular Culture and Political Quiescence

Some say it's all going to be *The Road*. Or *Mad Max*. Or *World Made by Hand* (white female, editor of a *Transition Voice* magazine, Virginia, 41-45)

Just because [peakists] have been influenced by fictional portrayals doesn't mean those scenarios are unlikely (white female, "prepper," California, 51-55)

I think our American way of life is coming to an end (white male, Virginia, 51-55)¹

This chapter situates the peak oil phenomenon in the context of the American apocalyptic and explores the relationship between environmental political engagement and narratives of regeneration through crisis in fiction and the political imaginary. As described in chapter 2, the coalescence of the peak oil movement in the mid-2000s was a mass response to American foreign policy (namely the occupation of Iraq), the rise of oil and gas prices and the growing awareness of anthropogenic climate change, among other factors, but it also fit into the long history of apocalyptic ideation in American history. Millennial ideologies and groups are remarkably popular in the United States, and apocalypticism has also been a major theme in popular culture. I document the growth of one form of apocalyptic popular culture, eco-apocalyptic disaster movies in the 1990s and 2000s, and describe their influence on peak oil believers by analyzing popular peak oil novels.

My survey respondents attested to the influence of apocalyptic popular culture on their conception of the future, and their prophecies bear a great deal of similarities to

¹ Respondents 9592381, 9577250 and 9569301.

Hollywood films such as *The Postman* (1997) and *The Day After Tomorrow* (2004).² However, disaster films and peak oil fiction serve fundamentally different purposes for their viewers and readers. While blockbuster films offer spectacular scenes of destruction, they demonstrate a symbolic national unification through the transcendence of persistent divisions of race, gender, class, religion and politics. At a historical moment when radical change through social movements or electoral politics seems unlikely to many Americans, the apocalyptic imagination of national regeneration through crisis provides a means of imagining a significantly different world. This is not necessarily a utopian future, but one in which Americans are shown to hold true to the ideals of their mythology: hard-working, egalitarian, communitarian, and inclusive. However, in peak oil fiction, such as James Howard Kunstler's widely-read novel *World Made By Hand* (2008), this national mythology is challenged and rejected. Peakists see oil depletion as a historical event that may finally bring about a revolutionary transformation and put an end to American imperialism and even capitalism. This change will be achieved not by a social movement, but by the petroleum-powered 'American way of life' tripping over its ecological limits. Motivated by anti-capitalist politics, the peakist vision of the future depicts an apocalyptic reckoning with revolutionary consequences, but, paradoxically, contributes to the political quiescence described in the last chapter.

The Apocalypse in American History

The apocalypse, which folklorist Daniel Wojcik defines as “the catastrophic destruction of the world or current society, whether attributed to supernatural forces,

² *The Postman*, Kevin Costner, 1997; *The Day After Tomorrow*, Roland Emmerich, 2004.

natural forces, or human actions,” has been an important theme throughout American history.³ While peakism may seem like an unusual belief-system to some readers, the peak oil movement does not seem quite as “fringe” when situated in the context of American apocalypticism. In 1999, for example, 36 percent of Americans admitted to planning to “stockpile food and water” in preparation for the fallout of the “Y2K” computer bug, while a 2006 poll found that a quarter of Americans believed that Jesus Christ would return to the Earth the following year.⁴ Connecting contemporary events to millennial prophecies is also not uncommon—in 2002, for example, one in four Americans claimed that the Bible had predicted the September 11th attacks.⁵ While a fascination with the end times may be universal, my surveys of peakists confirmed the particular prominence of apocalyptic belief and action in the United States. Among socio-economically similar respondents from the United States and comparably industrialized nations (Canada and Western Europe), American peakists were much more likely to have stockpiled food and other supplies.⁶

Indeed, apocalypticism has a long historical tradition in the United States. Early European explorers and the Puritans often cast the United States as a “new Eden” burdened with millennial expectations, and the Shakers, Millerites, Mormons, Jehovah’s

³ Daniel Wojcik, *The End of the World As We Know It: Faith, Fatalism and Apocalypse in America* (New York: NYU Press, 1999), 12.

⁴ “Public Sees a Future Full of Promise and Peril,” 2010. Pew Research Center for the People & the Press, June 22, 2010, <http://www.people-press.org/2010/06/22/public-sees-a-future-full-of-promise-and-peril>. Accessed January 7, 2012. Gallup Poll. “Y2K Millennium Bug – Wave 3,” questions qn8 and **qn6BB**. Associated Press-AOL News Poll, conducted by Ipsos, December 12-14, 2006.

⁵ Nancy Gibbs, “Apocalypse now,” *Time* 160, no. 1: 38-46.

⁶ 72% of American respondents had “prepared food or other supplies for yourself and your family” as “a result of your knowledge of peak oil,” compared to 60% of Canadians and Western Europeans.

Witnesses and other groups developed millennial Christian theologies.⁷ While apocalypticism has typically been the purview of religion, belief in the end of the world constituted an increasingly important aspect of American secular culture during the nineteenth and twentieth centuries. Millennial ideas have been instrumental in American military conflicts (such as the Civil War), social movements (such as abolitionism, the temperance movement and the Ghost Dance movement) and some of the core elements of national mythology, including American exceptionalism and Manifest Destiny.⁸ During the Cold War, the prospect of nuclear holocaust influenced any number of political and social developments, including, as we saw in chapter 2, the rise of modern environmentalism.⁹

The apocalyptic currents in American religion became more conspicuous in the second half of the twentieth century, as the membership rolls of evangelical Christian denominations swelled. Premillennial dispensationalism, a theology of biblical literalism that sees the return of Christ and the millennium as imminent events, moved from the fringe of American Christianity to the mainstream.¹⁰ This shift was highlighted by the visibility of premillennial evangelists such as Billy Graham, Jerry Falwell and Pat

⁷ See, for example, Ernest Lee Tuveson, *Redeemer Nation: The Idea of America's Millennial Role* (Chicago: University of Chicago Press, 1968).

⁸ See, for example, James H. Moorhead, *American Apocalypse: Yankee Protestants and the Civil War, 1860-1869* (New Haven: Yale University Press, 1978); Merton L. Dillon, "The Failure of the American Abolitionists," *The Journal of Southern History* 25, no. 2: 159-177; Joel W. Martin, "Before and Beyond the Sioux Ghost Dance: Native American Prophetic Movements and the Study of Religion," *Journal of the American Academy of Religion* 59, no. 4: 677-701; Daniel Wojcik, *The End of the World As We Know It: Faith, Fatalism, and Apocalypse in America* (New York: NYU Press, 1997), chapter 2.

⁹ See, for example, Adam Rome, "Give Earth a Chance": The Environmental Movement and the Sixties," *The Journal of American History* 90, no. 2: 525-554; Paul Boyer, *By The Bomb's Early Light* (New York: Pantheon, 1985); Elaine Tyler May, *Homeward Bound: American Families in the Cold War Era* (New York: Basic Books, 1990).

¹⁰ Mark Hulsether, *Religion, Culture and Politics in the Twentieth-Century United States* (New York: Columbia University Press, 2007).

Robertson and the public religiosity of Ronald Reagan and George W. Bush.¹¹ Beyond Christianity, apocalypticism was a core element of scores of new religious movements that appeared in the post-WWII period, including various New Age groups.

The peak oil movement has been placed in this tradition by a number of observers, described as the “liberal *Left Behind*” by some and derided as a “cult” by others.¹² As the narratives of conversion recounted in chapter 1 suggest, peak oil certainly bears a family resemblance to proper religions. After becoming “peak oil aware,” adherents share a belief in worldly destruction and a new conception of proper or ethical conduct; they practice rituals of prediction, prophecy and preparation; and often attempt to “convert” their friends and family. Both skeptics and believers have considered the peak oil ideology to be similar to a religion. While peakism lacks a conception of the sacred or supernatural, it certainly has religious dimensions.¹³ However we categorize peakism—as an ideology, a religion, or a form of radical environmentalism—it’s clear that the peak oil ideology that emerged in the mid-2000s drew on various strands of millennial theology.

The Post-Cold War Boom in Doom

¹¹ Michael S. Northcott, *An Angel Directs the Storm: Apocalyptic Religion and American Empire* (London: SCM Press, 2007).

¹² See, for example, Vaclav Smil, “Peak Oil: A Catastrophic Cult and Complex Realities,” *World Watch Magazine*, 19, no. 1 (2006); Graham Chandler, “The Cult of Peak Oil,” *Alberta Oil: The Business of Energy*, October 1, 2007, <http://www.albertaoilmagazine.com/2007/10/the-cult-of-peak-oil/>. Accessed March 15, 2012. Urstadt 2006.

¹³ See, for example, the spirited debate in a thread on Peak Oil News & Message Boards called “Peak oil is a religion,” <http://peakoil.com/forums/peak-oil-is-a-religion-t52427.html>. Accessed February 20, 2013.

Even beyond pulpits and pews, apocalypticism maintained a prominent presence in American culture throughout the twentieth century. After the end of the Cold War and the threat of nuclear annihilation, the background hum of apocalypticism in American culture only intensified and assumed new forms in the 1990s. Some of this was due to the anticipation of the year 2000 itself, which generated countless History Channel specials on apocalyptic themes as well as genuine concerns, such as the Y2K computer bug.¹⁴ In the early 2000s, President George W. Bush spoke openly about his beliefs as a born-again evangelical, and the September 11th attacks provoked a millennial paranoia throughout the country. The British *Daily Mail* summed up this mood on September 12th, 2001, when it ran the headline “APOCALYPSE!” above an image of the World Trade Center crumbling to the ground. Many Americans apparently agreed—in the weeks after 9/11, sales of Christian prophecy literature increased by 71%.¹⁵

During this period, the evangelical *Left Behind* series (1995-2007) continued its remarkable run of popularity and was suddenly given, as Douglas Kellner noted, “a new cultural resonance post-9/11.”¹⁶ Long a staple of science fiction, post-apocalyptic visions moved into the mainstream of American popular culture in the 2000s.¹⁷ Novels such as Margaret Atwood’s *Oryx and Crake* (2003) and S.M. Stirling’s *Dies the Fire* (2003) represented the biggest wave of end times literature since the 1960s, and the genre

¹⁴ Michael Barkun, “Millennium Culture: The Year 2000 as a Religious Event,” in Martha F. Lee (ed.) *Millennial Visions: Essays on Twentieth-century Millenarianism*, (Westport, CT: Praeger, 2000), 41-54.

¹⁵ Kevin Sack, “Apocalyptic Theology Revived by Attacks,” *New York Times*, November 23, 2001, A17.

¹⁶ Douglas Kellner, *Cinema Wars: Hollywood Film and Politics in the Bush-Cheney Era* (Oxford: Wiley-Blackwell, 2010), 123. Of the 16 *Left Behind* novels, written by Tim Lahaye and Jerry B. Jenkins, seven have reached #1 on the *New York Times*, *USA Today*, or *Publishers Weekly* bestseller list, and the series has sold over 65 million books.

¹⁷ Mervyn F. Bendle, “The Apocalyptic Imagination and Popular Culture,” *Journal of Religion and Popular Culture* 11 (Fall 2005): 1-42.

received a stamp of elite literary approval in 2007, when Cormac McCarthy was awarded the Pulitzer Prize for Fiction for his novel *The Road*. TV shows such as *Battlestar Galactica* (2004-2009), *Jericho* (2006-2008) and *Falling Skies* (2011-2012) brought the end of the world to the small screen, while teenagers and young adults immersed themselves in post-apocalyptic landscapes in video games such as the *Fallout* (1997-2010) and *Half Life* series (2001-2004). Zombie and vampire narratives, which often threatened the complete extermination of human beings, appeared in all of these formats.

Of all media platforms and genres, Hollywood disaster films exerted perhaps the strongest influence on peak oil believers and Americans in general. The disaster genre was remarkably popular in the 1970s, with hits such as *The Poseidon Adventure* (1972) and *The Towering Inferno* (1974).¹⁸ These films tended to focus on relatively small-scale crises, often isolated to a single ship, building, or airplane, but when the genre returned to prominence in 1996 with *Independence Day* it often conceived of disaster on a global if not cosmic scale. From 1995 to 1998, there were at least three major (high-grossing) disaster movies per year, including *Independence Day* (which grossed \$306 million in U.S. theaters in 1996), *Twister* (\$241 million in 1996), and *Deep Impact* (\$140 million in 1998).¹⁹ After a brief hiatus following the September 11 attacks, the genre became even more popular. From 2004 to 2009, at least one disaster movie grossed over \$150 million

¹⁸ *The Towering Inferno*, John Guillermin, 1974; *The Poseidon Adventure*, Ronald Neame, 1972.

¹⁹ My definition of “disaster films” follows Nick Roddick’s 1980 influential definition: they have the following characteristics: the disasters must be central to the film, as well as “factually possible,” “largely indiscriminate,” “unexpected (though not necessarily unpredictable).” Nick Roddick, “Only the Stars Survive: Disaster Movies in the Seventies,” in David Bradby, Louis James, and Bernard Sharratt, eds., *Performance and Politics in Popular Drama: Aspects of Popular Entertainment in Theatre, Film and Television 1800-1976* (Cambridge: Cambridge University Press, 1980), 246.

in the United States each year, and in all but one year there was a second feature that grossed over \$80 million.²⁰

However, box office figures do not fully represent the broad penetration of disaster themes into the public's consciousness. The majority of these films were summer blockbusters with large advertising campaigns that often featured central events of destruction, so that even those who did not watch the films got the gist of their plots. Many of them, such as *Independence Day* and *The Day After Tomorrow*, became staples of cable television. While industry figures are not available, the ubiquity of disaster films on cable TV has been anecdotally noted by a number of commenters—for example, there is even a Facebook page called “I Always Stop If Twister or Independence Day Is On TV.”²¹ The number of witnesses who described the attacks of September 11 as reminiscent of a disaster movie also attested to their lasting impression. Film historian Geoff King noted that “some of those who told their stories” after the attack “likened the experience of trying to escape the dust and debris specifically to being inside a movie scenario,” and Neal Gabler's editorial in the September 16, 2001 issue of the *New York Times* summarized the shared sense of déjà vu: “The explosion and fireball, the crumbling buildings, the dazed and panicked victims, even the grim presidential address

²⁰ A full list of disaster films of the 2000s includes *The Core* (\$73 million); *The Day After Tomorrow* (\$187 million); *I, Robot* (\$144 million); *War of the Worlds* (\$234 million); *World Trade Center* (\$163 million); *Children of Men* (\$35 million); *Poseidon* (\$60 million); *I Am Legend* (\$256 million); *Sunshine* (\$32 million); *Cloverfield* (\$80 million); *The Day The Earth Stood Still*, (\$79 million); *The Happening* (\$31 million); *Doomsday* (\$11 million); *2012* (\$166 million); *Knowing* (\$80 million); *Battle: Los Angeles* (\$212 million); *Contagion* (\$135 million). This list does not include *Titanic* (\$600 million), which has a much more limited scope than other disaster films of the late 1990s and 2000s, or films like *The Matrix* and *Fight Club*, which carry apocalyptic themes but would not be classified as ‘disaster movies.’ The genre is even more popular among made-for-TV films—from 2000 to 2011, over fifty disaster movies were released on American television networks.

²¹ “I Always Stop If Twister or Independence Day Is On TV,” <http://www.facebook.com/pages/I-Always-Stop-if-Twister-or-Independence-Day-Is-on-Tv/113417768671144>. Accessed February 28, 2012.

assuring action would be taken — all were familiar, as if they had been lifted from some Hollywood blockbuster.”²²

In the 1990s and 2000s, disaster films were increasingly related to nature and the environment. Developments in CGI technology, growing evidence of anthropogenic climate change and the end of historical antagonisms led filmmakers to cast natural phenomena as their villains—as Benjamin Svetkey put it, “we have no more Russians, no more Germans, no more villains. So we turn to mother nature.”²³ In films such as *Twister* (1996), *Volcano* (1997), *The Day After Tomorrow* (2004), *Poseidon* (2006), *The Core* (2003) and *The Happening* (2008), nature was portrayed as a violent, destructive force fundamentally opposed to humankind. In *The Day After Tomorrow*, a fatal sub-zero frost chased Sam Hall (Jake Gyllenhaal) through the halls of the New York Public Library, while nature struck back at polluting, climate-changing humans in *The Happening* by releasing airborne neurotoxins that induced its victims to immediately (and quite creatively) commit suicide. Even when the disaster was an alien attack, many films still contained environmental elements. In some, aliens were seen as a part of the natural world—in *War of the Worlds* (2005), the invaders literally emerge from the Earth, where they have been buried for millennia. In others, aliens were representatives of an otherwise mute natural world—in the 2008 remake of *The Day The Earth Stood Still*, for example, Klaatu (Keanu Reeves) declared that “if [humans] die, the Earth survives,” and

²² Geoff King, “‘Just Like a Movie’? 9/11 and Hollywood Spectacle,” in *The Spectacle Of The Real: From Hollywood To ‘Reality’ TV And Beyond* (Portland: Intellect Ltd, 2005), 48. The Motion Picture Association of America also took note of the connection between disaster films and 9/11, and began to consider “disaster images” as a new criterion for applying a PG-13 rating. Neal Gabler, “This Time, The Scene Was Real,” *New York Times*, September 16, 2001, Section 4, 2.

²³ Benjamin Svetkey, *Entertainment Weekly*, 1997, 3.

nearly wiped out humanity in order to save the planet. While many Americans remained dubious about anthropogenic climate change, increasingly dire scientific reports clearly dovetailed with the eco-apocalyptic themes of these films.²⁴

Disaster Patriotism

Most critics are in agreement that there are broad social, political, and cultural currents responsible for the disaster genre's ebb and flow over time. As Stephen Keane put it, "whether set in the past or extending to the future, disaster films carry the ideological signs of the times in which they are made."²⁵ For most film historians, the genre's rise to fame in the 1970s was closely connected with the widespread sense of national disillusionment during the Nixon-Ford era.²⁶ Especially in its most recent iteration, the epic scope of disaster films make them uniquely positioned to serve as bellwethers of the nation, since major symbols of national pride, such as the Empire State Building and the White House often play a symbolically crucial role in their stories. Since *Independence Day*, the wanton destruction of national landmarks has become a standard feature of the genre. "The implications," one critic noted, "are that the destruction of a landmark is enough to symbolize the end of a city and extending to the

²⁴ Ryan Gilbey, "Climate change is inspiring the ultimate scary movies," *The Guardian*: January 1, 2010, 28.

²⁵ Keane, 17.

²⁶ See, for example, J. Hoberman, "Nashville Contra Jaws: Or The Imagination of Disaster Revisited," in Alexander Horwath, Thomas Elsaesser and Noel King, eds., *The Last Great American Picture Show: New Hollywood Cinema in the 1970s* (Amsterdam: Amsterdam University Press): 195-222; David A. Cook, *Lost Illusions: American Cinema in the Shadow of Watergate and Vietnam, 1970-1979* (New York: Scribner, 1999).

invasion/destruction of an entire country.”²⁷ Government officials have often served as central characters in these films, and in the 1990s and 2000s the President himself was increasingly cast in the ensemble.²⁸ In these ways, disaster movies invite an interpretation of their stories as national commentaries.

A number of critics have pointed to *schadenfreude*, sadistic pleasure in scenes of destruction, as an explanation for the popularity of disaster narratives. Discussing *Volcano*, David Denby observed that the audience is “put in the position of wanting to see the people melt (otherwise there’s no movie); we root for the disaster.”²⁹ This is certainly a point of interest for some audience members, but I contend that the longstanding appeal of disaster movies is not to be found in the scenes of destruction themselves, but in their characters’ heroic responses to existential threats. Disaster films remain one of the most formulaic genres, and viewers can expect a prescribed sequence of events in which everyday life is suddenly disrupted by an unexpected event, centered in the United States, that will kill thousands, millions, or billions of people.³⁰ Characters from different backgrounds will be thrown together. They will not be able to prevent the catastrophe, but they will overcome conflicts, survive and save others. Villains will perish, and some sympathetic characters will sacrifice themselves in the name of the greater good. Immature husbands will be transformed into heroes, as crisis enables the reestablishment of proper priorities. In contrast to action films, which also feature

²⁷ Keane, 101.

²⁸ See, for example, *Independence Day* (1996), *Deep Impact* (1998), and *The Day After Tomorrow* (2004).

²⁹ *Volcano*, Mick Jackson, 1997. David Denby, “Lava Story,” *New York Magazine*, May 12, 1997, 58. Ken Feil, *Dying for a Laugh: Disaster Movies and the Camp Imagination* (Middletown, CT: Wesleyan University Press, 2006), 134.

³⁰ Feil, 1.

expensive CGI demonstrations of violence and destruction, disaster movies typically depict an ensemble cast of characters pulling together to affirm the importance of the collective. As Keane noted, “the innocent victims in disaster movies can only find strength in group action,” which affirms the necessary bonds of the nation.³¹

In post-Cold War disaster movies, the ensemble cast is expected to be representative of America’s diversity. Individuals of different ethnicities, races, classes, professions and levels of education are forced to work together, often for the first time. In the face of crisis, Americans find that the better angels of their nature prevail and previously intransigent divisions dissolve. Race plays an especially significant role in this genre. Despite recent claims that the U.S. has entered a “post-racial” era, racial divisions remain the most persistent fissure in an increasingly heterogeneous population. Compared to more complicated intersections of categories of identity, the bridging of racial differences is relatively easy to show on film, through scenes of interracial collaboration and friendship. In the typical disaster movie Americans prove themselves not only tolerant and inclusive but genuinely colorblind. This symbolic unification is often not particularly subtle. In the conclusion to 1997’s *Volcano*, as gray volcanic ash is covering the citizens of Los Angeles, a city whose racial tensions and violence been the subject of national spotlight during and after the Rodney King verdict only a few years before, a small boy delivers one of the genre’s overriding messages: “Everybody looks exactly the same.”

The federal government’s failure to aid black residents of New Orleans in the wake of Hurricane Katrina might have been expected to push directors to revise or at

³¹ Keane, 63.

least complicate the disaster formula, but post-Katrina films such as *The Happening* (2008) and *2012* (2009) portrayed a similarly unified, idealized response to environmental crisis. Imagined disasters, in this sense, serve an important national purpose; they provide, as Despina Kakoudaki pointed out, “a major incentive for the revival of humanist notions of community and patriotic identification” by creating “a common ground, a shared national point of view.”³² With the exception of a few notable films, most disaster movies end on a hopeful note of lessons learned, with an expectation of political, cultural, and spiritual rebirth as the credits roll. Although lives have been lost and national symbols destroyed, the cataclysm typically provides collective national regeneration through crisis.³³

Reading the Disaster Movie: Peakist Narratives and Popular Culture

Many peakists are avid fans of apocalyptic narratives across all media types, including disaster films. While a majority of Americans of a certain age have probably watched *Independence Day*, it is doubtful that nearly as many non-peakists have seen less popular films such as *The Postman* (which 40% of American survey respondents have

³² Despina Kakoudaki, “Spectacles of History: Race Relations, Melodrama, and the Science Fiction/Disaster Film,” *Camera Obscura* 17, no. 2 (2002), 113.

³³ While I have focused here on disaster narratives in film, these elements hold true for the vast majority of secular disaster narratives in popular culture, such as television shows, video games, and the wide range of films that feature epic scenes of destruction but are not categorized as “disaster movies,” per se. Despite their differences, what these media have in common is a narrative that ultimately views a potentially apocalyptic crisis as a means of national regeneration. Of course, this does not hold true for all recent films that contemplate the end of the world, or feature spectacles of destruction. *The Road*, both the film and novel is a prominent example—although it ends on a note of relative hope, it offers a bleak, depressing, and unredemptive vision of the future. However, I would argue *The Road*, like *On the Beach* (also a novel and film) before it, stands out there pessimistic prophecy goes so strongly against the generic grain. Most religious apocalyptic narratives, especially Christian (particularly evangelical) stories such as the *Left Behind* series, hold the expectation that believers (the reader) will enjoy the millennium of Christ’s reign after the apocalypse.

watched), *Waterworld* (65%), and *Children of Men* (36%) (see figure 4.1). Films of disaster and destruction became popular from 1995-2010 for some of the same reasons that the peak oil movement coalesced, but they also seem to have affected the way that peakists thought about themselves, their lives, and the future. Their readiness to discuss the relationship between their beliefs and these fictional narratives presents a rare opportunity to investigate the impact of apocalyptic popular culture on real-world beliefs.³⁴

Figure 4.1

Film	Year	Box Office Gross (U.S. theaters only, in millions of dollars) ³⁵	Percentage of peakists who have seen the film
<i>Independence Day</i>	1996	306.1	78.5
<i>Mad Max</i>	1979	8.4	75.2
<i>An Inconvenient Truth</i>	2006	24.1	69.8
<i>Waterworld</i>	1995	88.2	65.2
<i>The Day After Tomorrow</i>	2004	186.7	57.2
<i>War of the Worlds</i>	2005	234.3	53.8
<i>The Postman</i>	1997	17.6	38.6
<i>Children of Men</i>	2006	35.6	36.5
<i>Cloverfield</i>	2008	80.0	22.1

When asked to comment on their interest in the disaster genre and its potential connection to their belief in an imminent real-world collapse, peakists' responses reflected the wide range of ways that people understand their relationship to popular culture. A few admitted that they enjoyed the genre but denied that it might have any

³⁴ A number of pop cultural texts that were also influential to peak oil believers, including the film *Mad Max* (1979) and apocalyptic novels like *Lucifer's Hammer* (Larry Niven and Jerry Pournelle, Santa Monica: Playboy Press, 1977), are not discussed in this chapter. Rather than explore all the pop cultural (and media) influences on peak oil believers, this chapter looks at one iteration of American apocalyptic pop culture, but it is not intended to deny the influence of others.

³⁵ Data provided by Box Office Mojo, <http://www.boxofficemojo.com>. Accessed January 21, 2012.

impact on their beliefs, such as the Connecticut man who insisted that “the serious peak oilers are serious people, not given to fantasy (as entertaining as that might be).”³⁶ Some confessed that they had actively resisted allowing pop cultural narratives to influence their view of the future, but had been “primed” to consider scenarios from disaster movies by years of exposure to these narratives.³⁷ An Ohio woman said, “I think it's hard not to be influenced by gloom & doom portrayals,” and an oil company worker noted that “it's difficult to avoid letting fictional portrayals influence your thinking about situations with so many variables.” A Washington man agreed that “it's hard not to be influenced by pop culture images,” but did his best “to research the topic and develop a rational view of what is likely to happen.”³⁸

However, most respondents admitted that such attempts had probably failed, since, as a science fiction fan put it, “[human beings] are sponges, and cannot help but be influenced by media to which we are exposed.” An Arizona man commented that for him, literature, not film, was a “huge influence on the ‘what to do about peak oil’ issue,” while a scientist in his fifties said he had “read so many post-apocalyptic novels and seen even more movies that it would be difficult to deny that there has been an influence.”³⁹ Indeed, studies of media effects regularly show that exposure to popular culture influences viewers despite their skepticism, media literacy, or cultural sophistication. For example, a team of British researchers found that after watching *The Day After*

³⁶ Respondent 9589640.

³⁷ In the study of media effects, “priming” is a process whereby viewers of media become more likely to think about a certain topic in a certain way due to continued exposure. In this context, it is the continued popularity (quantity) of disaster films that is most relevant.

³⁸ Respondents 9570329; 9592954; and 9575686.

³⁹ Respondents 9685851; 9686672; 9686672; and 9680234.

Tomorrow in 2004, audiences were 50% more concerned about climate change than before the film.⁴⁰

When asked to agree or disagree with the statement that “fictional portrayals of post-apocalyptic scenarios have influenced the vision that *some* peak oilers have of what the post-peak period will be like,” 89% of respondents agreed. Consistent with the “third person effect,” the tendency to think that media influence is stronger for others than it is for oneself, only 36% admitted that films and literature had influenced their *own* vision of the future. Although this data is self-reported, the “social desirability” tendency—in this case the desire of peakists, who pride themselves on their education and disinterested analysis of energy futures, to be seen as disinterested rationalists and not admit that their deeply-held beliefs have been influenced by films such as *Waterworld* (1995) and *Armageddon* (1998)—suggests that the actual figure is higher.⁴¹ While countless scholars have discussed to the prevalence of apocalyptic narratives in contemporary American culture, the relationship between popular culture and end-of-the-world beliefs has rarely been documented directly. These survey responses suggest that cultural representations of apocalyptic themes can shape the direction of deeply held beliefs. This is “the end of the world as we know it” as a feedback loop, where narratives of the

⁴⁰ Andrew Balmford, Linda Birkin, Andrea Manica, Lesley Airey, Amy Oliver and Judith Schleicher, “Hollywood, Climate Change, and the Public,” *Science* 305, no. 5691 (2004): 1713-1713.

⁴¹ “Social desirability bias” can be defined as the tendency of survey respondents to provide answers that “make themselves look good for the researchers” (Sparks, 68). Despite the anonymity of my surveys, participants had such a strong interest in representing peak oil believers in a positive light that a handful were outraged by the implication of this question. Representative comments included, “Please, I can tell the difference between real and unreal” (9589640); and “most peak oilers are smarter than the average, they are a well-read, thoughtful group not given to hysteria (9589722). 11-15% of American peakists have a doctorate or other professional degree, 25% have a Master’s, and 84-85% graduated from college. According to the 2009 Census, these numbers are much lower for Americans in general—3%, 8%, and 39%.

apocalypse—whether in film, literature, genre fiction, comic books, or video games—intermingle with and influence the worldviews of actual people.

In the case of the 2009 film *Collapse*, this media influence came full circle. A documentary about peakist Michael Ruppert, author of *Crossing the Rubicon: The Decline of the American Empire at the End of the Age of Oil* (2004), *Collapse* gives Ruppert ample screen time to explain the theory of peak oil, even as it suggests that his emotional instability may be the cause of his obsession.⁴² For some viewers, the film introduced a new idea that proved compelling. On the blog “Inspired Ground,” for example, one peakist chose *Collapse* as the film that had most influenced her life.⁴³ Another, in a review on Amazon.com, described it as “a turning point in my life: it has changed me forever... If you read this Mike, I want to say: thank you for your legacy, for changing my life for the better and preparing our own little lifeboat for my family and I.”⁴⁴

A number of survey respondents explained the media influence of disaster films by referring to the lack of competing (non-apocalyptic) visions of environmental change, which assured that Hollywood films would play have some measure of influence. A 30-year old man from California bemoaned the lack of competing, serious, and believable mass-culture depictions of the future, asserting that “we need artists to describe for us a

⁴² *Collapse*, Chris Smith, 2009. Michael Ruppert, *Crossing the Rubicon: The Decline of the American Empire at the End of the Age of Oil* (New York: New Society Publishers, 2004). Ruppert has also published *Confronting Collapse: The Crisis of Energy and Money in a Post Peak Oil World* (Chelsea Green Publishing, 2009), and appeared in a number of peak oil films, such as *End of Suburbia*.

⁴³ “My Movie Influence (Collapse),” by “Nostra,” on “Inspired Ground,” <http://www.inspired-ground.com/my-movie-influence-collapse-2009/>. Accessed April 17, 2012.

⁴⁴ “The movie that changed my life,” Amazon.com review of *Collapse* by “SnakelaD,” <http://www.amazon.com/Collapse-Michael-Ruppert/product-reviews/B003CJXJ8Q?pageNumber=7>. Accessed April 17, 2012.

positive vision of the future.”⁴⁵ By “positive vision,” he was not referring to utopian dreams of technological salvation, but narratives of a nation or planet dealing with urgent ecological problems in a serious, thoughtful, and concerted way—which, as of this writing, seems more utopian than most science fiction. Similarly, a white male from Washington, D.C., noting the connection between fictional and political narratives, argued that the absence of peaceful, nonviolent visions of the future was the cause of the peak oil movement’s apocalypticism:

Unfortunately, because our leaders and our society have refused to conduct an open, honest, thorough discussion about this issue, we are left to our own wild imaginations and the imaginations of Hollywood marketers to develop images of likely futures.⁴⁶

The Influence of Disaster Films on Peak Oil Believers: Nature as an Agent of Change

How did disaster narratives shape beliefs about peak oil? For some respondents, disaster movies simply dramatized and confirmed existing suspicions—a woman in her sixties wrote that “disaster movies have reaffirmed my beliefs,” while a man from Oregon claimed that “the portrayals vindicate deep-seated beliefs.” A Californian said that such films “are all related to a common idea of what [the future] would be like in our imaginations,” so that “art is imitating life.” Another believer, who had attended a number of peak oil conferences, wrote that “these visions are persuasive in part because they tap into human imaginative habits that are common to many persons (that’s why the movies get made).” Other respondents believed that disaster narratives had opened their

⁴⁵ Respondent 9591539.

⁴⁶ Respondent 9591884.

minds to new possibilities, which might just turn out to be true. A Colorado man in his twenties noted that while “fiction can be a cathartic way to release emotion & fear around outcomes,” it “can also be prophetic,” while a “prepper” from California reported that his familiarity with disaster films had influenced the way he conceives of the future: “I haven’t been convinced of [*sic*] one in particular, but they do expand the realm of possibilities.” Similarly, an Oklahoma woman in her forties said that “in some ways they have raised fears that might not have been there,” while a Minnesotan in her early thirties summed up the general influence of apocalyptic popular culture: “I think it has made me more of a doomer.”⁴⁷ Indeed, American peakists, who had watched many more Hollywood disaster films, were noticeably more extreme in their predictions than believers in other countries. They were much more likely to see “resource wars” and an apocalyptic scenario (including a global “die-off” and collapse) as probable future events than their Canadian or European counterparts, for example.⁴⁸

⁴⁷ Respondents 9566782, 9695012, 9567344, 9584720, 9685028, 9595099, 9689841 and 9685028.

⁴⁸ In response to the question, “Given the peak oil crisis, which of the following do you see as most likely for the country you currently reside in?” American peakists averaged 6.4 out of 10 for the option “apocalyptic scenario (i.e. violence, epidemics, die-off),” while Canadians and Western Europeans averaged 5.6. There are many potential explanations for this difference, of course, but the long tradition of American apocalypticism is certainly relevant, and was frequently cited by respondents themselves. A genre as consistently popular as the disaster film succeeds because of its polyvalence. Some viewers enjoy the use of CGI technology’s ability to create spectacular scenes, and others the unity, resolve, and heroism that most characters display in response to an imagined crisis. When scholars discuss an oppositional reading of popular culture, they often portray audiences engaged in ‘decoding’ in an oppositional (or negotiated) way that is not intended by the author, director or artist. However, an oppositional reading can also represent a *literal* understanding of the material. For example, while *Jaws* (1975) has been interpreted as a film about submarines, patriarchy, and the alliance between the forces of law and order and corporatism, for the minority of viewers suffering from selachophobia its primary lesson was about shark attacks.⁴⁸ Similarly, while the dominant reading of disaster films may have little to do with alien attacks or falling meteors, for viewers who were immersed in peak oil culture or deeply concerned about environmental issues, the influence may have been quite literal. While familiar categories of identity, such as race, class, gender, religion, and politics certainly influence audience interpretation, social or psychological factors—beliefs about sharks, for example, or the likelihood of an imminent ecological crisis—can be just as significant.

In most disaster films, nature is portrayed as an agent of change. A tornado, tidal wave, or alien attack is the prime mover of each narrative, compelling humans to unite across political, racial, and socio-economic boundaries. For peakists, oil depletion, a natural “limit,” is the agent of change. Although many believers see the consequences of peak oil as a slow, “long emergency,” some speak of the peaking of global petroleum production as an event with destructive capabilities, akin to a tornado or earthquake.⁴⁹ For example, one respondent wrote that “peak oil will have a permanent and measurable effect on my day to day living,” and another claimed that “peak oil will drag down any economic systems that remain dependent on fossil fuels.”⁵⁰ Whereas most environmentalists now see resource scarcity as tightly bound to economic and social issues that are highly variable, peakists tend to hold fast to a simplistic version of the limits-to-growth environmental paradigm discussed in chapter 2, where economic and social issues are at the mercy of ecological limits. The relationship between the natural environment and human civilizations in both disaster and peak oil narratives could be summarized by an old adage: “Nature bats last.”

Peak Oil Fatalism

In disaster films, nature is a primal power that threatens to destroy lives and nations alike. In response, humans are forced to pull together across divisions of race, gender, class, religion, politics and nationality, and ultimately this unification is more important than the material losses. Disaster forces survivors to recognize their true

⁴⁹ Kunstler 2005.

⁵⁰ Respondents 9568275 and 9568924.

priorities in life and thereby provides a means of regeneration through crisis—under attack from nature, old friends become lovers, workaholic fathers become dedicated parents, and families pull together. Even darker films, such as *The Core* (2003) and *The Knowing* (2009), conclude by focusing not on death and destruction, but highlighting the lessons learned and the strength of the survivors, as the soundtrack swells.

Peakism revises this formula by making disaster itself, and not the human reaction to it, the engine of transformation. What, then, is the peakist vision of the future? On peak oil Internet forums there is a great deal of speculation, prediction, and prophecy about the future—the “Planning for the Future” section of one website alone contains nearly 3,000 separate threads, some of which have been viewed over 300,000 times.⁵¹ As Daniel Wojcik observed, “the privatization of apocalyptic beliefs” in recent decades means that “the consumers of [mass-marketed items of apocalyptic prophecy] may never come into direct contact with one another but instead may construct a personal vision of apocalypse gleaned from a diversity of sources.”⁵² By “privatization,” we should understand individualization—as is evident from speculation on peak oil websites, apocalyptic beliefs, especially in the Internet age, are highly personal and often idiosyncratic. This variance can make it difficult to speak with any accuracy of a general “peak oil vision.” However, as peakism has grown in popularity, a number of adherents have written speculative novels about the future, some which have proven influential

⁵¹ As of March 3, 2012, the “Planning for the Future Thread” of Peak Oil News contained 2,695 topics. The most popular, “Today I made / bought / learn... (for a post oil world),” contained 1,936 posts and had been viewed 305,880 times. “Planning for the Future,” Peak Oil News & Message Boards, <http://peakoil.com/forums/planning-for-the-future-f8.html>. Accessed March 3, 2012.

⁵² Wojcik, 16.

within the subculture. Nestled within the literary genre of science fiction, peak oil fiction sheds light on the peakists' imagination and actions.

Petrofiction and the Great American Oil Novel

Author and literary critic Amitav Ghosh noted in 1992 that despite the ubiquity and importance of oil in the contemporary world, petroleum was conspicuously absent in fiction. In claiming that “the Oil Encounter... has produced scarcely a single work of note,” Ghosh was referring to the transnational exchange between Middle Eastern producers and Western consumers, but he pointed out that even within the West there is a noteworthy absence of “petrofiction,” let alone a “Great American Oil Novel.”⁵³ Two decades (and over 500 billion barrels of oil consumed globally) after that proclamation, a genre of “petrofiction” has emerged from the American peak oil community.⁵⁴ Novels such as *After the Crash: An Essay-Novel of the Post-Hydrocarbon Age* (2005) and *Oil Dusk: A Peak Oil Story* (2009), which place petroleum scarcity at the center of their secular apocalypse and post-peak worlds, speak directly to Ghosh's question. By demonstrating the collapse that results from the cessation of the transnational flow of oil, they provide an implicit critique of American petro-dependence. As of this writing, over a dozen peak oil novels have been published in English.⁵⁵ They were written by

⁵³ Amitav Ghosh, “Petrofiction: The Oil Encounter and the Novel,” *The New Republic*, March 2, 1992: 29-34.

⁵⁴ Global oil consumption from 1992 to 2012 calculated using figures from the U.S. Energy Information Administration Independent Statistics and Analysis “International Petroleum (Oil) Consumption Tables (Thousand Barrels per Day),” <http://www.eia.gov/emeu/international/oilconsumption.html>. Accessed March 1, 2012.

⁵⁵ Jim Booth, *Boil Over: The Day the Oil Ran Out* (Charleston, SC: CreateSpace, 2010); John M. Cape and Laura Buckner *Oil Dusk: A Peak Oil Story* (Humble, TX: Singing Bowl Pub, 2009); Kurt Cobb, *Prelude* (Pittsburgh: Public Interest Communications, 2010); Douglas Coupland, *Player One: What Is To Become of*

dedicated peakists, marketed as “peak oil novels” and recognized as such on peak oil forums.⁵⁶

As in disaster films, novels such as *Last Light* (2007), *Boil Over: The Day the Oil Ran Out* (2010), and *Shut Down: A Story of Economic Collapse and Hope* (2011) focus on an ensemble of diverse characters as they respond to the unexpected—but predictable!—collapse of the world around them. In peak oil fiction, however, narrative takes a backseat to ideology. The narrator intermittently breaks from the plot to educate the reader about the process by which energy depletion precipitated the disruption of the status quo, a scramble for survival, and ultimately the collapse of civilization. Given their similarities, these novels are best categorized by where they locate themselves on this fixed timeline. Although most are written after the crash, a few, such as *Prelude* (2010), portray the period just before the expected oil crash, and document the transformative process of becoming “peak oil aware.”

Prelude was written by Kurt Cobb, a frequent contributor to websites The Oil Drum and Energy Bulletin and a founding member of the American chapter of the Association for the Study of Peak Oil (ASPO). Dedicated “to the peak oil community,” it contains a number of scenes that peakists would find familiar, such as local meetings of

Us (Toronto: House of Anansi Press, 2010); William Flynn, *Shut Down: A Story of Economic Collapse and Hope* (Charleston, SC: CreateSpace, 2011); Caryl Johnson, *After the Crash: An Essay-Novel of the Post-Hydrocarbon Age* (Self-published, 2005); James Howard Kunstler, *World Made By Hand* (New York: Atlantic Monthly Press, 2008) and *The Witch of Hebron* (New York: Atlantic Monthly Press, 2010); Sam Penny, *Was A Time When* (Sacramento: TwoPenny, 2012); Amy Rogers, *Petroplague* (New York: Diversion Books, 2011); Alex Scarrow, *Last Light* (London: Orion, 2007) and *Afterlight* (London: Orion, 2010); Dave Spicer, *Deadly Freedom* (New York and Toronto: Cambridge House Press, 2008). For an example of their marketing within the peakist community, see “First Peak Oil Novel Published in U.S.,” *Energy Bulletin*, August 15, 2005, <http://www.energybulletin.net/node/7921>. Accessed March 16, 2012.

⁵⁶ See, for example, Frank Kaminski, “The post-oil novel: a celebration!” *Seattle Peak Oil Awareness*, May 11, 2008, <http://www.energybulletin.net/node/44031>. Accessed March 1, 2012.

energy study groups and even a national conference (presumably ASPO). *Prelude* might be subtitled “a peak oil education,” since the primary narrative is the conversion of its protagonist, Cassie, a naïve upstart at an energy consulting firm, from a “cornucopian” to a true believer. As if to answer Ghosh’s challenge, peak oil novels attempt to reorient the reader’s understanding of the world, so that all that is solid melts into energy:

The products in the store windows she was passing had arrived by truck, train and ship.

The camera shop, the electronics place, the women’s clothing store, the pharmacy, and the video store she passed, none of them would be operating without oil. Many of the products and even their packaging were made using materials based on petrochemicals, materials like plastic and synthetic rubber. Even the perfume that was emanating from the woman walking in front of her was probably partly derived from oil. And the cars and trucks and buses coursing through the street beside her all ran on some form of oil... Suddenly for Cassie the whole world had now become one big manifestation of energy, much of it in the form of oil.⁵⁷

By highlighting the hidden petroleum that lubricates and enables our modern lives, *Prelude* achieves a cosmological reorientation that places energy at the center of contemporary life. Cassie notes, “this was the world that oil built,” and wonders, “how long will it last?”⁵⁸ Her personal struggle is intended to spark and mirror a similar process of discovery and education in the reader. As if in preparation, the novel describes the sense of conversion and emotional turmoil that we witnessed in chapter 1.

⁵⁷ Cobb, 153.

⁵⁸ Cobb, 147.

Novels such as *Boil Over: The Day the Oil Ran Out* (2010), *Deadly Freedom* (2008) and *Oil Dusk: A Peak Oil Story* (2009) occur in the midst of the collapse, and, like disaster films, expend little effort on character development. *Last Light*, published by British author Alex Scarrow in 2007, is the most well-known of these works.⁵⁹ Scarrow's Sunderland family experiences a familiar series of events: the collapse of the state, sudden militarization, the formation of militias, and finally an unfamiliar, isolating localization. Patriarch Andy Sutherland is a savior—resourceful, clever, and strong, with military training as an engineer in Iraq that serves the family well. *Last Light* ends on an uncharacteristically optimistic note: in a scene that echoes the denouement of the 2005 remake of *War of the Worlds*, the Sutherland family reunites in their suburban home with a glimmer of hope that although “the oil age is over... things will eventually knit themselves back together again.”⁶⁰

Andy Sutherland is also, significantly, a peak oil prophet. Each peakist novel contains at least one character that predicted (and sometimes prepared for) the coming oil crisis and is now in a better position to survive. This is a key aspect of many apocalyptic texts that has been ignored by most scholars—the prophet serves as a model for the reader, who can now imagine himself as more prepared for these events.⁶¹ In an Author's Note, Scarrow makes this function explicit:

⁵⁹ I rely here on the hundreds of reviews and virtual discussions of *Last Night* on peak oil websites and blogs. Also see Brendan Barrett, “Reality of peak oil enters our fiction,” *OurWorld 2.0*, January 21, 2011, <http://ourworld.unu.edu/en/reality-of-peak-oil-enters-our-fiction>. Accessed March 15, 2012.

⁶⁰ Scarrow 2007, 398.

⁶¹ For two of the few critics that have highlighted this aspect of apocalyptic texts, see George Slusser, “Pocket Apocalypse: American Survivalist Fictions from *Walden* to *The Incredible Shrinking Man*,” in David Seed, ed., *Imagining Apocalypse: Studies in Cultural Crisis*, (New York: St. Martin's Press, 2000); and Claire P. Curtis, *Postapocalyptic Fiction and the Social Contract* (Lanham, MD: Rowman & Littlefield, 2012), 5.

I'd like to think that a whiff of *Last Light* will remain with you once you snap the cover shut. I'm hoping Andy Sutherland achieved something; that the world looks slightly different to you now—more fragile, more vulnerable. After all, *to be aware is to be better prepared*.⁶²

The author's direct identification with his protagonist here constructs a connection between prophecy and fulfillment that reflects a desire for crisis amongst many peakists. As participants become more identified with the peak oil theory—discussing it with friends, family, and co-workers, speaking with other peakists on the Internet, and immersing themselves in subcultural books and films—the peak oil crisis becomes a longed-for event.⁶³ At least one believer noticed this tendency, writing on Peak Oil News that “most of the ardent followers seem to really hope it will happen, either cause they despise the political/economic status quo or they've put so much time and energy into the issue that they feel the need to be proven right.”⁶⁴ If it occurs, they are prophets and potential saviors; if it does not, they are merely “kooks” and “crackpots” who fell for a “fringe internet-based theory,” as my respondents themselves put it.⁶⁵

After Oil, A World Made By Hand

⁶² Scarrow 2007, 402. Emphasis supplied.

⁶³ Psychologists and sociologists have noted that this tendency explains why many apocalypticists double down on their belief when predicted events do not come to pass. See, for example, the classic study of failed predictions, Leon Festinger's *When Prophecy Fails* (Minneapolis: University of Minnesota Press, 1956).

⁶⁴ “How many people here are rooting for peak oil?” Peak Oil News, <http://peakoil.com/forums/how-many-people-here-are-rooting-for-peak-oil-t20704.html>. Accessed September 5, 2012.

⁶⁵ Respondents 9559210, 9561426, 9561825, 9563057. On this subject, Daniel Wojcik has noted that “the appeal of apocalypticism may also be attributable to the fact that such beliefs enhance the self-esteem of believers. Revelation of the secret order of events in the midst of seeming chaos makes devotees privy to arcane knowledge of the meaning of history” (143-144).

For the best exposition of the peakist ideology and reflection of the way that peak oil narratives differ from secular apocalyptic representations in popular culture, we should turn to the major peak oil novel, James Howard Kunstler's *World Made By Hand*. As a result of Kunstler's notoriety it was widely reviewed in 2008—in the *New Yorker*, the *New York Times*, and the digital *Salon*, for example—and catapulted its author to a new echelon of celebrity. Kunstler was even interviewed on Comedy Central's *The Colbert Report*, where he gamely explained to the host's conservative alter-ego why “we’re not going to run Walt Disney World, Walmart, and the interstate highway system on any combination of solar, wind, nuclear, ethanol, biodiesel, or French fried potato oil.”⁶⁶ Along with Kunstler's *The Long Emergency* and Richard Heinberg's *The Party's Over*, *World Made By Hand* is one of the most influential peak oil work, and was read by 78% of my respondents. Readers found the novel to be not only “seriously addictive” but prophetic—many used the words “real” or “realistic” in their comments. A peakist from Pennsylvania, for example, argued that “‘World Made by Hand’ gives quite a probable glimpse of what the post Peak Oil world could be like later this century.”⁶⁷

World Made By Hand is set in the mid-2020s, a decade and a half after the “long emergency” caused by peak oil: gas shortages that led to resource wars, starvation, and lethal epidemics. Its primary location is Union Grove, an Upstate New York town whose quaint downtown is now inhabited by a few score of aging townspeople living hardscrabble lives without petroleum and electricity. Its protagonist and narrator is

⁶⁶ Paul Greenberg, “Recipes for Disaster,” *New York Times*, April 20, 2008, 27. Ben McGrath, “The Dystopians,” *New Yorker*, January 26, 2009. Rebecca Onion, “Envirogeddon! Is it time to start wishing for the end of the world?” *Slate*, April 21, 2008, <http://www.unz.org/Pub/Slate-2008apr-00291>. Accessed May 22, 2013. *The Colbert Report*, Comedy Central, May 1, 2008.

⁶⁷ Respondent 9581634.

Robert Earle, a middle-aged, white, liberal male, the “former CEO of a technology company” (and peak oil prophet) who now works as a carpenter. Outside the town are three alternative living arrangements: Stephen Bullock’s farm, a plantation; Karptown, where a band of neo-primitive roughnecks live in shanties and trailers; and a religious cult, the New Faith Congregation.⁶⁸ The narrative center of *World* is a trip that Earle and group of New Faithers make (by horseback and foot) to nearby Albany, which is controlled by a vicious strongman. The trip brings into relief the benefits of Union Grove, which has not suffered from war, nuclear attacks nor political corruption. The reader can be expected to use his foreknowledge to end up in Union Grove instead of Bullock’s Farm, Karptown or Albany.

While the novel has a number of similarities to disaster films, its differences underscore the ways that the peak oil movement departs from standard American apocalyptic narratives. I previously highlighted the symbolic importance of race in many disaster movies, and Kunstler also uses race as a symbol of the nation’s direction. In *World Made By Hand*, a ragtag band of multicultural Americans do not come together to reaffirm the country’s greatness in the face of disaster. While there no people of color in the novel, Earle and others repeatedly refer to race wars in other locations. When the leader of the New Faith Congregation is asked why they abandoned their previous location, he responds that “the white against black and so forth was filling over from Philly, too, and we had trouble with it... things are rough from sea to shining sea. From Texas clear to Florida, there’s folks shooting each other and trouble between the races and all like that.” Later, another New Faither says that the reason was

⁶⁸ Kunstler, 220.

Race trouble, to be honest... A lot of people cut loose when Washington got hit [by a terrorist attack], you know. They left there with nothing but the clothes on their backs and some firearms. You had civil disorders in Philadelphia and Baltimore, refugees fleeing, what you folks call pickers, bandit gangs. Pennsylvania became a desperate place. After a while, it was like cowboys and Indians.⁶⁹

In this narrative, a terrorist attack does not unite the nation, as typically occurs in disaster movies, but instead brings longstanding divisions to the fore. The comparison of future racial violence as akin to “cowboys and Indians,” a children’s game dramatizing genocide, is a particularly pessimistic comment about the future of the republic.

This seemingly reactionary perspective on the persistence of racial constructs and race relations in a dystopian future should be situated within the context of the novel’s readership. As Democrats, progressives and anarchists, most peakists hold views on race that are markedly liberal. For example, in response to the question, “In recent years, has too much been made of the problems facing black people?” only ten percent of peakists answered “too much,” while over a third answered “too little”—in 2010 pollsters asked the same question of a representative sample of all Americans, and 28% answered “too much,” while only 16 percent answered “too little.” While peakists’ prophecies may bear some similarities to racialized survivalist fantasies that are produced by conservative authors (such as William Luther Pierce), they should be understood differently.⁷⁰ Rather

⁶⁹ Kunstler, 76; 5; 148.

⁷⁰ “Polling the Tea Party,” *New York Times*/CBS News poll, April 5-12 2010. This poll was used to measure the “racial attitudes” of Tea Party supporters, who, while being very similar to peakists in terms of race, age, education, and wealth, are diametrically opposed on this and other political issues. In this poll,

than a white supremacist fantasy, the post-peak world portrayed in *World Made By Hand* is a referendum on the nation's failure to achieve its founding promise of equality, which Kunstler suggests by juxtaposing "trouble between the races" with "from sea to shining sea" in the above passage.

Almost all peak oil novels focus on the United States. For decades, Americans have conceived of oil as a distinctively American commodity—even when located below other countries—because of its role in facilitating the "American way of life" from the post-WWII period to the present. Geographer Matthew T. Huber has argued that "this entitlement is negotiated through a kind of livelihood discourse—or mobilizing a cultural claim to resources as crucial in sustaining a morally righteous way of life."⁷¹ The deep connection between oil and American identity is reaffirmed and represented in the regular consumption of gasoline in stations with names such as "Liberty," "Freedom" and "SuperAmerica," often festooned with national flags, "a concrete, everyday practice through which Americans imagine their own national community."⁷² Gas stations are part and parcel of the "American way of life," which is characterized by movement, open roads, and the freedom of physical and social mobility.

The sedentary post-peak world, Kunstler suggests, is not only post-American, it is distinctly un-American. This is most evident in the setting of the novel, claustrophobic in

for example, 52% of Tea Party supporters answered that "too much" had "been made of the problems facing black people." View data on "Racial Attitudes" at <http://www.nytimes.com/interactive/2010/04/14/us/politics/20100414-tea-party-poll-graphic.html?ref=politics#tab=5>. Accessed February 18, 2012. William Luther Pierce is author of *The Turner Diaries* (Hillsboro, WV: National Vanguard Books, 1978), an anti-Semitic post-apocalyptic novel that became, according to the FBI, "the Bible of the racist right," and inspired quasi-survivalists such as Timothy McVeigh.

⁷¹ Matthew T. Huber, "The Use of Gasoline: Value, Oil, and the 'American way of life,'" *Antipode* 41, no. 3 (2009), 469.

⁷² Huber, 476.

its localism. Disaster movies, as well as classic disaster novels such as Lucifer's Hammer (1977), try to convey their national or global scope by incorporating scenes from as many different locations as possible, but *World Made By Hand* is, like its characters, unable to escape Upstate New York.⁷³ Without petroleum for transportation, let alone electricity for the Internet, Earle and other survivors experience the paralysis of geographical isolation. Information about the U.S. government—the identity of the President, news of the nation, and whether it even exists—is conveyed through the radio, which requires electricity. This is the nation as a truly “imagined community,” and when Earle mentions at the end of the novel that “the electricity stayed off, without even a few more additional spasms,” we’re left to assume that the United States has completely collapsed.⁷⁴

Post-Apocalyptic Romanticism

Is this a crisis, or an opportunity? Although most reviewers described *World Made By Hand* as a dystopia, its post-peak world is actually superior to the present in many ways. This is no anomaly—one out of three survey respondents admitted to feeling “excitement” about the post-peak world, while an independent survey of peak oil believers found that 37% were more “excited” than “worried” about the “post-peak

⁷³ As Imre Szeman put it, the filmic technique of presenting “multiple storylines which take place in numerous locations” is “a now common, overly literal attempt to represent the new reality of globalization” and the interconnectedness of different nations and regions. Szeman, “The Cultural Politics of Oil: On *Lessons of Darkness* and *Black Sea Files*,” *Polygraph* 22, 813.

⁷⁴ Benedict Anderson, *Imagined Communities: Reflections on the Spread of Nationalism* (London: Verso, 1983).

years,” and 50% saw peak oil as an “opportunity,” not a “problem.”⁷⁵ In *World Made By Hand*, the trip to Albany brings into relief the benefits of Union Grove, which has not suffered from war, nuclear attacks or political corruption. Survivors have forged a genuine community, founded on mutual aid. The crash of the oil economy has finally caused the fall of capitalism itself, and residents tend their gardens and employ a pre-capitalist credit economy, simple but fair. The government’s absence has forced most survivors to embrace a Jeffersonian self-reliance, and they have gained the dignity of working freely for themselves. By necessity they have become renaissance people, producing not only their own food and housing but their own alcohol, drugs and entertainment—Earle is in Union Grove’s bluegrass band, which covers golden oldies such as Nirvana’s “Smells Like Teen Spirit.” The survivors, as one character puts it, “eat real food instead of processed crap full of chemicals. We’re not jacked up on coffee and television and sexy advertising all the time. No more anxiety about credit card bills.”⁷⁶ To emphasize that post-apocalyptic cuisine is actually superior to our own—no fast food, no chemicals, no trans fats—the narrator lingers on every culinary description—one reviewer observed that “you can practically taste the corn bread and the fish that choke this world’s now-unpolluted rivers and streams, another upside to that whole end-of-civilization thing.”⁷⁷

⁷⁵ James L. Howard, “Global Peak Oil Survey 2009,” http://www.powerswitch.org.uk/portal/index.php?option=com_content&task=view&id=2971&Itemid=77. Accessed March 15, 2012. This was an online survey of nearly 300 peakists. While Howard’s population and my survey respondents could be slightly different, the survey’s demographics (on age, gender, country of origin, and a number of other factors) indicate it is a nearly perfect match with my own survey population.

⁷⁶ Kunstler, 38.

⁷⁷ Reihan Salam, “Heralding the End Times,” *New York Sun*, March 5, 2008, Arts & Letters, 15.

Post-apocalyptic fantasies often engage in what Leo Marx called the American pastoral ideal, the “urge to idealize a simple, rural environment.”⁷⁸ Henry Nash Smith, writing in 1950, noted the powerful influence that the dream of an “agrarian utopia of hardy and virtuous yeomen” had exerted throughout American history.⁷⁹ He summarized the ideology inherent in agrarian utopianism in ways that are still relevant to contemporary post-apocalyptic fiction: “That agriculture is the only source of real wealth; that every man has a natural right to land; that constant contact with nature in the course of his labors make him virtuous and happy” and “that government should be dedicated to the interests of the freehold farmer.”⁸⁰ With *World Made By Hand*, James Howard Kunstler situates his post-American novel within an American tradition. Robert Earle tells us, for example, that “the freehold farmer”—a central figure in a mythologized version of American history—“was the new chief executive.”⁸¹ Kunstler’s knowing nod to pastoral idealism is a complicated gesture, invoking American mythos while prophesying the decline of the nation. If disaster movies and peak oil visions both provide a means of environmental and social regeneration through crisis, they part ways on the role of the nation. In the former, the nation plays a central reconstructive role in the post-apocalyptic world; in the latter, the U.S. government disappears, but its absence does not seem to trouble anyone. Borrowing a motif from disaster films, one character mentions that “New York City is finished,” a post-apocalyptic wasteland where “the

⁷⁸ Leo Marx, *The Machine in the Garden: Technology and the Pastoral Ideal in America* (New York: Oxford University Press, 1964), 5.

⁷⁹ Henry Nash Smith, *Virgin Land: The American West As Symbol and Myth* (Cambridge, MA: Harvard University Press, 1950), 170.

⁸⁰ Smith, 126.

⁸¹ Kunstler 2008, 32.

immense over-burden of skyscrapers in Manhattan had... proved unusable without reliable electric service.”⁸²

Just as the pastoral ideal has served as a motivation for generations of environmentalists, many peakists believe that the post-peak world will be more environmentally balanced. In Kunstler’s vision, post-carbon survivors are able to enjoy a renewed sensitivity to and connection with the natural world. One character notes with pride, “we follow the natural cycles,” and Earle praises the quiet life: “I enjoyed the peacefulness and easy pace of the walk. In a car, I remembered, you generally noticed only what was in your head or on the radio, while the landscape seemed dead.”⁸³

Kunstler deploys the pastoral ideal in his lyrical descriptions of natural landscapes.

When Earle comes upon Britney, one of his lovers, gutting a fish:

She reached in and removed its guts and flung the guts out in the current. Then she ran her thumb down along the spine inside of the rib cavity to get out the congealed blood there that can make the meat taste off if you leave it in, especially on a hot day. Finally, inside she slipped the fish the creel and washed the spine and blood off her fingers in the current. I clapped my hands in appreciation. Hearing that, she finally turned around. What a sight she was in a wet cotton drafts. I kicked off my boots and waded out in the water, scooped her into my arms and carried her back to the gravel bank.⁸⁴

As this cinematic passage shows, the consequences of the peak oil crisis gives Earle the opportunity to (quite literally) adopt a classically masculine pose. Here and elsewhere,

⁸² *Ibid*, 142; 58.

⁸³ *Ibid*, 5.

⁸⁴ *Ibid*, 309.

Kunstler adopts a century-old trope about a crisis of American masculinity caused by stultifying modernization, which I explore in the next chapter. A return to a pioneer lifestyle provides a welcome change for the former CEO—and might for you too, it is implied, if you only read the signs and prepare for what is to come.⁸⁵

Post-Peak Anti-Capitalism

A few scholars have discussed *World Made By Hand*, but they have treated it primarily as work of fiction.⁸⁶ As a novel, it is a curiosity; as a work of prophecy, which tens (if not hundreds) of thousands of Americans subscribed to, it takes on a greater significance. In the context of real-world believers, this vision of the future is most revealing when we consider the primary trait that sets most peakists apart from a hypothetically average American: their politics. The peak oil movement has been characterized by journalists as the “liberal apocalypse” for good reason: 56% of American peakists described themselves as “liberal” or “very liberal,” compared to only 21% of all Americans in a national poll conducted at the same time. Given a wider range of categories, approximately 7-9% would themselves “anarchist,” 10-11% “socialist,” 20% “progressive,” 14-15% “liberal,” and only 4-6% “conservative.”⁸⁷ Beyond labels, their values put them far to the left of most Americans. 81% thought that gays and lesbians should be able to legally marry (with 11% having no opinion), for example, and

⁸⁵ The historiography on crises of masculinity in the United States is long and varied. See, for example, John F. Kasson, *Houdini, Tarzan, and the Perfect Man: The White Male Body and the Challenge of Modernity in America* (New York: MacMillan, 2002).

⁸⁶ See Curtis 2012, chapter 1; Peter Hitchcock, “Oil in an American Imaginary,” *New Formations* 69, no. 1 (2010): 81-97; Stephanie LeMenager, “The Aesthetics of Petroleum, After Oil!” *American Literary History* 24, no. 1: 59-86; Mary Manjikian, *Apocalypse and Post-Politics: The Romance of the End* (Lanham, MD: Rowman & Littlefield, 2012).

⁸⁷ Lydia Saad, “Conservatives Remain the Largest Ideological Group in U.S.,” Gallup, January 12, 2012.

82% agreed with the statement “we don’t give everyone an equal chance in this country.”⁸⁸

In interviews, surveys and online forums, many peakists advance a leftist critique of American imperialism as well as capitalism. They view patriotic American platitudes as a mix of misinformation and outright falsehoods. Judging from representative comments on virtual forums, many believe that “the American Dream is just propaganda used to justify selfish materialism” and “the sad reality of the matter is that ‘the American Dream’ is dying. Every month more American families are slipping out of the middle class and into poverty.”⁸⁹ One peakist scoffed, in a thread on the subject of “American exceptionalism,” “we have been the best colonialists in the world. We sucked the world dry, taking a full quarter of its resources for ourselves even though we only made up 5% of the population. And only a smidgen of that 5% actually got any of it.”⁹⁰ Distrust of the U.S. government extended to foreign policy, which most peakists considered to be motivated not by noble intentions but short-sighted energy imperialism.

⁸⁸ In a Washington Post-ABC poll taken two months before this survey, 53% of Americans agreed that same-sex marriage should be legal, with 44% against. Sandhya Somashekhar and Peyton Craighill, “Slim majority back gay marriage, Post-ABC poll says,” March 18, 2011, http://articles.washingtonpost.com/2011-03-18/politics/35207422_1_gay-marriage-pro-gay-marriage-group-anti-gay-marriage. Accessed June 3, 2013. The polling statement “we don’t give everyone an equal chance in this country” has been used by researchers to measure sensitivity to (and resentment of) minority groups. In a 2010 survey, the University of Washington Institute for the Study of Ethnicity, Race and Sexuality found that only 55% of white Americans agreed with this statement. Christopher Parker, “Attitudes on limits to liberty, equality, and Pres. Obama traits by Tea Party Approval,” <http://depts.washington.edu/uwiser/Tea%20Party%20Chart%20%5Bpdf%5D-1.pdf>. Accessed September 1, 2012.

⁸⁹ “The American Dream?” Peak Oil News, <http://peakoil.com/forums/the-american-dream-t61397.html>. Accessed May 1, 2012. “16 Reasons to Feel Really Depressed About the Direction That the Economy Is Heading,” Peak Oil News, July 7, 2011, <http://peakoil.com/business/16-reasons-to-feel-really-depressed-about-the-direction-that-the-economy-is-headed/>. Accessed May 1, 2012.

⁹⁰ “Breaking: US AAA credit rating downgraded,” Peak Oil News, <http://peakoil.com/forums/breaking-us-aaa-credit-rating-downgraded-t62368-105.html>. Accessed March 15, 2012.

The number of survey respondents that described the United States as an empire was telling. A few representative commenters considered oil depletion to be part of “the impending fall of the U.S. empire,” caused by “Western Civilization’s hubristic blindness and imperialistic self-destructive tendency,” which would lead to “the end of US imperialism.”⁹¹ Even more—over ten percent of respondents to one survey—cited the imminent peak oil collapse as the death knell of capitalism. A New York man in his fifties noted that “capitalism requires constant *growth* [sic] for it to remain viable as an economic system, but that continuous growth may well no longer be possible due to peak oil,” while a peakist in her early forties observed that “capitalism as we know it has grown on the back of cheap energy, particularly oil.”⁹² As a commenter on Peak Oil News put it, “five dollar gasoline is great for mother earth,” not because it will stimulate the development of alternative energy sources, but because “it means the end of capitalism.”⁹³ These predictions are represented in peak oil fiction, where most authors foresee local systems of mutual exchange replacing neoliberal capitalism. As cultural theorist Imre Szeman asked, “Is the end of oil a disaster? This depends, of course, on the perspective one has on the system in danger of collapse: capitalism.”⁹⁴

Peakists’ politics should alter our evaluation of their vision of the future. While they do not present the radical racial reconstruction of an Octavia Butler or the nuanced gender critique of an Ursula K. LeGuin, these Americans are engaged in their own radical

⁹¹ Respondents 9589678, 9697109, and 9589863.

⁹² Respondents 9571401 and 9590289.

⁹³ “How reliable are U.S. Department of Energy oil production forecasts?” Peak Oil News, <http://peakoil.com/production/how-reliable-are-u-s-department-of-energy-oil-production-forecasts>. Accessed May 19, 2013.

⁹⁴ Imre Szeman, “System Failure: Oil, Futurity, and the Anticipation of Disaster,” *South Atlantic Quarterly* 106, no. 4 (2007): 805-823.

cultural project of imagining a post-American, post-capitalist space.⁹⁵ It would be an overstatement to paint all believers as conscious anti-imperialists or anti-capitalists, but the close connection that most draw between imperialism, capitalism, and petroleum shows that they view the consequences of peak oil as America's proverbial chickens coming home to roost. One article by a reformed peakist claimed, with some exaggeration, that "loathing for the United States is a virtual prerequisite for becoming a peak oil acolyte."⁹⁶ Like many others, the Virginia man who predicted that "our American way of life is coming to an end" seemed to view the "end of the oil age" as the end of the American empire and capitalism itself: a crisis, of course, but also an opportunity for something better.

From Politics to Prophecy: Political Quiescence Among Peak Oil Believers

While beliefs about inevitable futures have often inspired action, they can also lead to political quiescence. Instead of becoming more engaged in radical or environmental politics, the average peak oil believer became less politically active. Although they followed national and environmental news more closely after becoming "peak oil aware," they became less likely to vote or attend marches, rallies, or protests.⁹⁷ What's most striking about this group of leftists, then, is their tendency to see even

⁹⁵ See, for example, Octavia Butler, *Parable of the Sower* (New York: Four Walls Eight Windows, 1993) and Ursula K. LeGuin, *The Dispossessed: An Ambiguous Utopia* (New York: Harper & Row, 1974).

⁹⁶ Mike Bendzela, "The End of the End: How the Peak Oil Movement Failed," January 2, 2011, <http://www.opednews.com/articles/The-End-of-The-End--How-t-by-Mike-Bendzela-110102-802.html>. Accessed May 10, 2012.

⁹⁷ In response to the question, "Have you been more or less engaged in the following activities since learning about peak oil? Please put on a scale from 1 to 5, with 1 for much less engaged, 3 for no change, and 5 for much less engaged," American peakists averaged 2.79 for the option "attending rallies, marches or protests."

radical politics as unable to solve environmental problems. Anxieties about energy motivated a number of political campaigns in recent American history, such as the anti-nuclear movement of the 1970s and 1980s, but peakists almost completely ignored electoral politics as an avenue to address their concerns. One representative respondent described himself as “cynical and disassociated. Our government is unresponsive, in denial, and ineffectual,” while a Colorado man asserted that “politics is a supreme waste of time,” and an Oregon man complained that “our political system and institutions are dysfunctional to the point of being irrelevant—the emperor has no clothes.”⁹⁸

For many people, their new ecological identity occasioned a retreat from politics. A Texas man “briefly got into politics,” voting in primaries and attending county caucuses and conventions, but then “realized that the system didn’t want to change, and was not likely to change from within, but” required “some external crisis.”⁹⁹ “Oily Cassandra,” who we met in the introduction, had previously been active in leftist politics, such as protesting the U.S. invasion of Iraq in 2003, but reported in 2007 that there was no place for her concerns in mainstream American politics.¹⁰⁰ James Howard Kunstler regularly critiqued American politics on his blog, but he did so from an outsider’s perspective, claiming that political action was ineffective given the “self-righteous cluelessness in every band of the American political spectrum.”¹⁰¹ Peak Shrink Kathy McMahon had been active in the civil rights movement, but “Peak Oil Blues” did not advocate political actions. She viewed the problems of petroleum dependency as far too

⁹⁸ Respondent 9591897.

⁹⁹ Respondent 9596038.

¹⁰⁰ Personal communication with “Oily Cassandra.” February 1, 2010.

¹⁰¹ “We Were Lied To,” Clusterfuck Nation, http://kunstler.com/mags_diary24.html. Accessed November 10, 2011.

engrained for contemporary politicians to address, and informed her readers that it is “not your job to fight [the Panglossian disorder]. You cannot... Maybe this year, maybe next, you may be thought of as the sane one after all.”¹⁰²

As these comments suggest, peakists were even more skeptical than average Americans of elected politicians—only 3% of respondents said that most members of Congress deserve re-election, compared to 21% of Americans at the time of the survey.¹⁰³ This skepticism is reflective, in many ways, of the “sense of alienation” that a recent CBS poll found “had ticked up in recent years... most Americans feel alienated from their political leaders and dissatisfied or angry with Washington.”¹⁰⁴ When historian Timothy P. Weber pointed out that “advocates of apocalypticism” have typically been “outsiders, alienated and disinherited from the privileged and powerful” who “looked for their future redemption from beyond the clouds precisely because they had no recourse in the present,” he was discussing how marginalized groups embrace extreme religious ideas, but we might very well apply his insight to our (more) secular subject.¹⁰⁵ A core aspect of American political culture in the twenty-first century is a general feeling of political alienation—in a 2011 poll, 73% of respondents agreed with the claim, “the people running the country don’t really care what happens to you” and 66% agreed that “what

¹⁰² “Do You Have a Panglossian Disorder? or Economic and Planetary Collapse: Is It a Therapeutic Issue?” Peak Oil Blues, <http://www.peakoilblues.org/blog/?p=132>. Accessed November 30, 2012.

¹⁰³ Lydia Saad, “Voters Issue Strong Rebuke of Incumbents in Congress,” Gallup, April 7, 2010. Available from: <http://www.gallup.com/poll/127241/voters-issue-strong-rebuke-incumbents-congress.aspx>. Accessed December 1, 2012. Some survey questions mirrored, word for word, national polls conducted regularly over the last thirty years.

¹⁰⁴ Brian Montopoli, “Alienated nation: Americans complain of government disconnect,” CBS News, http://www.cbsnews.com/8301-503544_162-20074813-503544.html?tag=cbsnewsMainColumnArea. Accessed September 7, 2012.

¹⁰⁵ Timothy Weber, *Living in the Shadow of the Second Coming: American Premillennialism, 1875-1982* (New York: Oxford University Press, 1979), x.

you think doesn't count very much anymore.”¹⁰⁶ In a different poll, Americans placed more faith in telemarketers than elected Congresspeople.¹⁰⁷ This sense of alienation has long been reflected in the U.S.'s low voter turnout compared to other industrialized democracies.¹⁰⁸

Peakists' surprising alienation—their belief in the futility of politics—was motivated by an awareness of the need for radical changes in environmental policy combined with a relatively sober calculation of the limitations of contemporary American environmental politics. As the United States underwent the sharp turn to the right over the last three decades described in the last chapter, leftists—progressives, socialists, anarchists, anti-capitalists and others—have become even more politically marginalized. Even with the emergence of the Occupy movement in 2011 and the re-election of a Democratic president, most leftist political goals remain beyond the pale of mainstream American political culture.

This is especially true of environmental initiatives. Although they may be overestimating the consequences of petroleum depletion, peakists' sense of an imminent ecological crisis is certainly justified—one could point, as they do, to the grave threats posed by climate change, topsoil erosion, ocean acidification, deforestation, and

¹⁰⁶ Regina A. Corso, 2011. Harris Poll #97, September 13, 2011. New York: Harris Poll.

¹⁰⁷ Rick Couri, “Poll places trust in congress below telemarketers,” *Newstalk Radio KRMG*, December 13, 2011, <http://www.krmg.com/news/news/local/poll-places-trust-congress-below-telemarketers/nFz8m/>. Accessed March 18, 2012.

¹⁰⁸ Over the last forty years, voter turnout in the United States has hovered between 36% and 57%, with non-presidential elections generally in the 30s and 40s. This is far below other industrialized countries. For “lower house” elections, the U.S. average for the 18 elections before 2001 was 48% turnout of eligible voters. Compare this rate of participation over the same period to Germany (86%), Holland (83%), Israel (80%), France (76%), the United Kingdom (76%), Canada (74%) and Spain (73%). See Mark N. Franklin, “Electoral Participation,” in Richard G. Niemi and Herbert F. Weisberg, eds., *Controversies in Voting Behavior* (Washington, DC: CQ Press, 2001), 83-99.

environmental toxification. Their evaluation of the state of American environmental politics, while perhaps overly defeatist, is not out of touch with the candid assessments of many mainstream scientists and environmentalists. Indeed, Sarah Amsler noted, “there are two prominent narratives of crisis in contemporary environmental politics. One is rooted in fears of ecological catastrophe, and the other in a sort of anthropological pessimism that human beings lack the will or capacity to prevent it.”¹⁰⁹ Most peakists argue that the U.S. is simply unable to solve the major problems that the country and planet face, which they identify as peak oil, climate change, and capitalism’s demand for infinite growth in a finite world. This belief was summarized by a Nebraska man in his thirties, who believed that political action on these fronts was futile, since the “social, political, and media systems required to make meaningful headway are dysfunctional. Appropriate responses require a level of discussion that is beyond the capacities of the present system” in the United States. As these Americans “peer into the uncertain future,” as one member of Peak Oil News put it, “they find it easier to believe in the complete disintegration of America and its culture than in the possibility of an American society which has adapted to changed circumstances and innovated new solutions.”¹¹⁰ Given the preponderance of apocalyptic narratives in American culture—and the absence of alternate visions of environmental and social change—perhaps this stance should come as little surprise.

¹⁰⁹ Sarah Amsler, “Bringing Hope ‘To Crisis’: Crisis Thinking, Ethical Action and Social Change,” in Stefan Skrimshire, ed., *Future Ethics: Climate Change and Apocalyptic Imagination* (London: Continuum 2010), 129.

¹¹⁰ “Doomers Don’t Believe In America : Economics & Finance - Page 9,” Peak Oil News, “Carlhole,” September 25, 2008, <http://peakoil.com/forums/doomers-don-t-believe-in-america-t45511-120.html>. Accessed March 15, 2012.

Since fossil fuels are finite resources and the United States is unlikely to suddenly transition away from its petroleum economy, the thinking goes, might oil depletion not deliver a solution to (or salvation from) climate change and ecological crisis? If this seems to like mere wishful or magical thinking, we might ask ourselves which scenario, in 2013, seems more likely: that American politicians, including the House of Representatives, along with leaders from other populous and high-energy consuming countries, will collectively decide to drastically reduce their energy usage and convince or require oil companies and petro-states to forego burning every barrel of petroleum, at great economic loss, *or* that they are forced to do so only when they finally run out of cheap oil?¹¹¹ This line of argumentation is many things—pessimistic, defeatist, disheartening—but it is neither uninformed nor unrealistic. In fact, it resembles the claims made by advocates of climate adaptation and geoengineering.¹¹²

For those who hope that the United States will take a more active role in addressing pressing ecological issues such as our dependence on fossil fuels, the fatalism and political quiescence expressed by peakists is troubling. As a group of educated, middle-class leftists who have based their very identities on the threat of environmental destruction and resource depletion, we might expect peak oil believers to be at the forefront of demands for changes in environmental policy. Instead, they have become more fatalistic, less politically active, and more quiescent. They note, with a touch of black humor, that peak oil will provide a solution to anthropogenic climate change. In

¹¹¹ As Bill McKibben noted in a recent *Rolling Stone* article, the value of all of the announced reserves of coal, oil and natural gas, by countries and corporations, is \$27 trillion. Bill McKibben, “Global Warming’s Terrifying New Math,” *Rolling Stone*, July 19, 2012.

¹¹² See, for example, Eli Kintisch, *Hack the Planet: Science’s Best Hope—Or Worst Nightmare—For Averting Climate Catastrophe* (Hoboken, NJ: John Wiley & Sons, 2011).

some ways, this is a self-fulfilling prophecy: if the most environmentally aware and concerned citizens retreat from the public sphere into individualistic “prepping,” or even into collective groups such as Transition Towns, the public pressure for political action will only diminish.

Many scholars have viewed narratives of ecological apocalypse in opposition to radical politics, but my research shows that the relationship is more complicated.¹¹³ Claims that eco-apocalyptic attitudes leads to political passivity may be true—peakists are indeed slightly less likely to vote and attend protests after becoming “peak oil aware”—but we might also view the peak oil movement as the sublimation of a political vision into a prophecy, or a new configuration of radical political beliefs that reflects our privatized, neoliberal age. From this perspective, we can better understand the phenomenon’s concentration in the United States, where the government has been much less willing to even acknowledge the reality of one ecological crisis (anthropogenic climate change) and pay more than lip service to its reliance on petroleum. Peakist fatalism is disquieting not because it is puzzling, but because it is so recognizable—from their political alienation, to the influence of apocalyptic popular culture, to their suspicions about the futility of politics. Scholars such as Constance Penley have noted that the popularity of science fiction (such as *World Made By Hand*) is directly related to our ability to imagine meaningful social change. She argues that popular narratives often embrace messiahs or disasters as agents of change because “we *can* imagine the future,

¹¹³ See, for example, Michael Hardt, “Two Faces of Apocalypse: A Letter from Copenhagen,” *Polygraph* 22 (2010): 265-274.

but we *cannot* conceive of the kind of collective political strategies necessary to change or ensure that future.”¹¹⁴ Most peakists, and perhaps even most Americans, would agree.

¹¹⁴ Constance Penley, “Time Travel, Primal Scene, and the Critical Dystopia,” in Constance Penley, Elizabeth Lyon, Lynn Spigel and Janet Bergstrom, eds., *Close Encounters: Film, Feminism, and Science Fiction* (Minneapolis: University of Minnesota, 1991), 64.

Chapter 5: White Masculinity and Post-Apocalyptic Retrosexuality

Compared to my great grandmother, I marvel at the life I have had... I have roamed North America at will from Ixtapa to Halifax. I eat like a king. I want for nothing. I know that my ancestors were more connected to nature, that they were survivors, but I am wealthy and soft. (White male, Oregon, 36-40)

This isn't like sharing chores. It's a matter of life and death. Political correctness goes out the window and he (or she) who demonstrates better competence as a warrior gets dibs. What that means is Ripley [from the film *Alien*] comes before [Steve] [U]rkel, [the iconic nerd from the TV show *Family Matters*] and Rambo [from the *Rambo* films] comes before Paris Hilton.

What if “peak oil” isn’t really about the powerlessness people fear in any near future, but is actually about the powerlessness they feel today?¹

In statements like the first two above, the “excitement” that some peakists felt about the post-apocalyptic future certainly appears to have a lot to do with gender. In my surveys, between three quarters and four fifths of all peakists were men, and almost every peakist author I have mentioned is a white male. Indeed, one well-known author reported that “the attempt to find a female speaker at a peak-oil conference is a disaster. I tried hard with ASPO-5 [in 2011], but no luck.”² Why was this the case?

On the comment board of a “Transition Culture” blog post on gender in the peak oil movement, peakists themselves offered a number of potential explanations. A mother in her mid-30s cited the gendered division of labor, noting that “time is... a very real issue for every woman I know. Working, taking care of children, trying to build community, attending to all the details of daily life—this is exhausting. Women do a

¹ Respondent 9591897. “Mos6507,” “The Return of Patriarchy,” Peak Oil News & Message Boards, <http://peakoil.com/forums/the-return-of-patriarchy-t57793-40.html>. Accessed May 14, 2013. “Is Peak Oil Pessimism a Generation of Men Coming to Realise How Useless They Are,” Transition Culture, <http://transitionculture.org/2006/12/04/is-peak-oil-pessimism-a-generation-of-men-coming-to-realise-how-useless-they-are/>. Accessed May 11, 2013.

² “Is Peak Oil Pessimism a Generation of Men Coming to Realise How Useless They Are,” Transition Culture, <http://transitionculture.org/2006/12/04/is-peak-oil-pessimism-a-generation-of-men-coming-to-realise-how-useless-they-are/>. Comment by “Ugo” Bardi, former president of ASPO.

huge amount of necessary work in this world.” “ChristineL” agreed, citing the “old feminist slogan” which states, “I wanted to go out and change the world, but I couldn’t find a babysitter.” “Greg” cited differential gender “socialization” as a factor, arguing that “women are generally awarded for being team players” and “following the herd,” but communicating about or preparing for peak oil “asks that we go against the flow and do the hard thing. Men are generally more willing to do that.” Matt Savinar, then the webmaster of the popular site Life After The Oil Crash, offered a sociobiological argument. He commented that status may have something to do with men’s willingness to speak out, since “men are a bit more outspoken and like to post all the great stuff they are doing on web blogs to get attention... Tribesman [*sic*] in New Guinea have their penis sheaths. We have our Peak Oil blogs.” Kurt Cobb, in a 2007 blog post entitled, “Is Peak Oil a Guy Thing?”, concluded that the dearth of female peakists is the consequence of “the peak oil movement draw[ing] many of its members from the oil industry,” which is “a highly technical subject which attracts minds from the hard sciences, engineering, mathematics, and the high technology world, all of which continue to be dominated by males.”³

While gender socialization and practical considerations may have contributed to the discrepancy in participation in the peak oil movement, many collective fantasies of post-apocalyptic life, as depicted in peakist fiction and discussions on virtual forums, suggest that the real answer is psychological, and has much more to do with men than women. As “Odograph” asked, “What if ‘peak oil’ isn’t really about the powerlessness

³ Kurt Cobb, “Is Peak Oil A Guy Thing?” September 16 2007. <http://resourceinsights.blogspot.com/2007/09/is-peak-oil-guy-thing.html>. Accessed June 3, 2013.

people fear in any near future, but is actually about the powerlessness they feel today?”⁴

In this chapter, I argue that for some participants, the peak oil movement and similar survivalist fantasies provide a means of re-inscribing “traditional” (1950s) gender roles and revivifying white masculinity. After exploring the depictions of and tensions around masculinist post-peak fantasies within the peakist community, I explore similar survivalist fantasies in twenty-first century American culture, such as the television show *Revolution* (2012-present). I situate these concerns over white masculinity in the context of shifts in political economy, gender and racial scapegoating in the twenty-first century. Because peakists rarely speak openly about the racial and gender implications of their visions of the future, and because this analysis only applies to a subset of peak oil believers, this chapter is slightly more exploratory.

As noted in the last chapter, people of color are entirely absent in *World Made By Hand*, but masculinity is a central concern. Robert Earle, its narrator and protagonist, is a former white-collar worker who finds a renaissance masculinity in the post-apocalypse. Throughout the course of the novel he inhabits a number of models of twenty-first century masculinity. When he saves a young widow and a child from a fire, Earle is a fireman; when he toils as a carpenter, he’s a blue-collar worker; when he is voted mayor (and sheriff), he’s an authority figure; when he makes a trip to Albany and kills a man in a daring escape, he’s a soldier and action hero; when the town celebrates, he’s a musician (if not quite a rock star). In his late fifties or sixties, Earle also enjoys a striking amount of sexual freedom. As the novel begins, he is spending his nights with Jane Ann, whose

⁴ “Odograph,” “Is Peak Oil Pessimism a Generation of Men Coming to Realise How Useless They Are,” Transition Culture, <http://transitionculture.org/2006/12/04/is-peak-oil-pessimism-a-generation-of-men-coming-to-realise-how-useless-they-are/>. Accessed May 11, 2013.

husband Loren is impotent. After a young man in town perishes in a fire, Earle reluctantly accepts the attractive young widow Britney into his home. This is described as a selfless act of generosity—post-peak Union Grove is simply no place for a single woman, of course.

Female characters do not enjoy the same opportunities, and the novel's gender politics provoked an uproar within the peakist community. None of its main characters are women, and the novel would surely fail the "Bechdel test" that identifies gender biases in works of fiction.⁵ The two primary female characters (Jane Ann and Britney) seem to exist, as peak oil feminist Sharon Astyk put it, to "a. compete to have sex with the narrator and b. suffer and c. serve meals."⁶ Kunstler's narrator justifies these regressive gender roles matter-of-factly: "as the world changed, we reverted to social divisions that were thought to be long obsolete. The egalitarian pretenses of the high-octane decades had dissolved and nobody even debated it anymore, including the women of our town."⁷ A number of female peakists objected to this prophecy, noting that the gains of feminism were not likely to be undone within a decade: "I very much doubt women will lose political representation and be forced into awkward, bulky dresses a mere two decades or so after collapse."⁸ One blogger commented that "what crept me

⁵ First applied to films, the "Bechdel test" identifies implicit sexism in media by whether a portrayal has "at least two women in it... who talk to each other... about something besides a man." Allison Bechdel, "The Rule," *Dykes to Watch Out For*, 1985.

⁶ Sharon Astyk, "Why Are the Mean Girls Picking On *World Made By Hand*?" The Chatelaine's Keys, May 4, 2008, http://sharonastyk.com/2008/05/04/kunstler-gets-defensive-meanderings-on-_world-made-by-hand_/. Accessed February 22, 2012. On peak oil feminism, see Astyk, "Peak Oil Is Still a Women's Issue and Other Reflections on Sex, Gender and the Long Emergency," Casaubon's Blog, <http://scienceblogs.com/casaubonsbook/2010/01/31/peak-oil-is-still-a-womens-iss/>. Accessed June 11, 2013.

⁷ Kunstler 2008, 101.

⁸ "Book Review – *World Made By Hand*," "Sublime Oblivion," <http://www.sublimeoblivion.com/2009/04/10/notes-kunstler-fiction/>. Accessed February 20, 2012.

out about the book was that [Kunstler] seemed to romanticize the vulnerable status of women in his post-[peak] world as part of a project of re-heroizing ‘good men.’ It felt paternal, vaguely Humbertish.”⁹ Another put it more plainly: “For god’s sake can’t we just come right out and say it? Kunstler is sexist pure and simple,” and his novel is “an utterly ridiculous demonstration of old-white-guy fantasies gone wild.”¹⁰

Predictions of a post-apocalypse that is also post-feminist were common on peakism’s online forums, blogs, and comments sections. Almost paraphrasing Earle, “Cashmere” wrote that “post peak will be a reversion to conventional norms, like 'em or not.”¹¹ Others, behind the cloak of anonymity, were far less reserved about their views on shifting gender roles. “Bshirt,” for example, predicted that “all those braindead female public school teachers making their 50 - 70 thousand dollars a year teaching seven year old kids to count to ten will be... damn glad to be in a kitchen with a roof and food in it. But with their attitude... it's highly doubtful the majority will be wanted by anybody.”¹² “Mos6507” noted that post-apocalyptic survival won’t be “like sharing chores. It's a matter of life and death. Political correctness goes out the window and he (or she) who demonstrates better competence as a warrior gets dibs. What that means is Ripley [from the film *Alien*] comes before [Steve] [U]rkel [the iconic nerd from the TV show *Family*

⁹ Janet McAdams, April 15, 2011 letter to Karla Armbuster in response to blog post on *World Made By Hand*, <http://www.intersivity.org/lists/asle/archives/Apr2011/msg00074.html>. Accessed February 23, 2012.

¹⁰ Sharon Astyk, “Why Are the Mean Girls Picking On *World Made By Hand*?” *The Chatelaine’s Keys*, May 4, 2008, http://sharonastyk.com/2008/05/04/kunstler-gets-defensive-meanderings-on-_world-made-by-hand_/. Accessed February 22, 2012.

¹¹ “Re:What WON’T you miss,” Peak Oil News & Message Boards, <http://www.peakoil.com/forums/viewtopic.php?p=732750&highlight=>. Accessed May 14, 2013.

¹² “The Return of Patriarchy,” Peak Oil News & Message Boards, <http://peakoil.com/forums/the-return-of-patriarchy-t57793-20.html>. Accessed May 14, 2013.

Matters] and Rambo [from the *Rambo* films] comes before Paris Hilton.”¹³ “Novus” attempted to add some historical context to these claims: “feminism was a failed experiment partly enabled by cheap energy and a society with excess wealth. The reality we inherit contains neither cheap energy or excess wealth among other factors which will lead to a return to patriarchy.”¹⁴

Some female peakists agreed that gender roles could change. Gail Tverberg, who authored a column as “Gail the Actuary” on “The Oil Drum,” granted that “to the extent that physical labor becomes more highly valued,” in a somatic energy regime, “women may see their status go down.”¹⁵ “Ayame” predicted that “there will be a return to moderate patriarchy out of necessity to protect the family and clan group,” and “as a women [*sic*] I would actually welcome the protection of a male clique in return for doing monotonous tasks. Generally men are better genetically adapted to violence both physically and psychologically. Sure women might not have all the opportunities they used to but when the group is threatened the men will [be] the ones going out and sacrificing their lives for their families.”¹⁶

While the lack of women in the peak oil movement was a regular topic of conversation, the absence of people of color was rarely debated. 89% to 91% of my survey respondents self-identified as “white” or “Caucasian,” while only 72.4% of

¹³ “The Return of Patriarchy,” Peak Oil News & Message Boards, <http://peakoil.com/forums/the-return-of-patriarchy-t57793-40.html>. Accessed May 14, 2013.

¹⁴ “The Return of Patriarchy,” Peak Oil News & Message Boards, <http://peakoil.com/forums/the-return-of-patriarchy-t57793-20.html>. Accessed May 13, 2013.

¹⁵ Gail Tverberg (posting as “Gail the Actuary”), “The Oil Drum: Campfire | Men's Response to Shifting Roles after Peak Oil,” The Oil Drum, <http://campfire.theoil drum.com/node/6171>. Accessed May 7, 2013.

¹⁶ *Ibid.*

Americans identified themselves as such.¹⁷ If anything, my informal canvasses of audiences at peak oil conferences and lectures have shown fewer, not more, people of color. Potential explanations for this absence might begin not just with the open historical exclusion of people of color from participating in public activism (environmentalism or other) before the civil rights movement, but with the long history of exclusion of the concerns of people of color from traditional environmental movements. Environmental damage that disproportionately affected people of color in the United States, such as waste siting, lead poisoning, and general toxification, were, until recently, considered “urban” and not “environmental” issues. This has been addressed and ameliorated by activists and scholars (such as Dorceta E. Taylor, David N. Pellow and Andrew Hurley) working on environmental justice in recent years, but many environmental issues are still framed as “universal” problems that affect all Americans (or humans) equally, without regard to the dimensions of race, class, and gender that often leave disadvantaged groups to bear the worst burdens.¹⁸ While the whiteness of environmentalism has certainly changed in the last two decades, and environmentalists and scholars now recognize the concerns and campaigns of people of color as “environmental” even if they are not publicly framed as such, this history of exclusion undoubtedly leads some people of color to avoid explicitly “environmental” concerns and actions.

¹⁷ U.S. Census, 2010.

¹⁸ See, for example, Dorceta E. Taylor, *Race, Class, Gender and American Environmentalism* (U.S. Department of Agriculture, 2002); David N. Pellow, *Garbage Wars: The Struggle for Environmental Justice in Chicago* (Cambridge: MIT Press, 2004); Andrew Hurley, *Environmental Inequalities: Class, Race, and Industrial Pollution in Gary, Indiana, 1945-1980* (Chapel Hill: UNC Press, 1995).

Instead of wondering why people of color have not subscribed to peakism, we might ask why so many middle-aged white Americans have. Although race was rarely even mentioned on peakist forums, due perhaps to the possible presence of peakists of color and a liberal disapproval of open racism, many visions of the post-peak world clearly tie the revitalization of masculinity to whiteness. In *World Made By Hand*, for example, characters of color are invisible, an absent presence involved in spatio-temporally distant “race wars.” Since there are no such conflicts in Union Grove, we are left to conclude that they must be at least partially responsible for them.

In other peakist speculations, the connection between whiteness and masculinity is far more explicit. In W.R. Flynn’s *Shut Down: A Story of Economic Collapse and Hope*, the peaceful white community that assembles in Corbett, Oregon, after the peak oil collapse survive only by defending itself in a race war against marauding gangs of African-Americans and Latinos from urban Portland. These gangs, “dressed similarly in oversized t-shirts and low-hung baggy pants,” rage through the city while “armed, drunk, stoned,” committing acts of torture, theft, and sexual violence. The novel’s protagonists join a group of peace-loving whites such as the blue-collar “Big Don, an energetic, charismatic and strapping 6’1”, 190 lb, 72-year old, and tough as nails retired railroad worker,” who wears “faded jeans and a long-sleeved flannel shirt.” As I noted in the last chapter, mainstream post-apocalyptic fantasies generally present a vision of multicultural harmony, but Flynn’s does not. Even “migrant” Latinos, despite having “worked [in Corbett] on the same farms for years” and thus potentially having useful knowledge about local agriculture, are said to “pose an unacceptable level of resource burden and

were being told to leave or turned away if they were encountered by a patrol.”¹⁹

The regressive gender and racial perspectives of some peak oil visions, and their articulation to a socially conservative message, will be familiar to devoted consumers of post-apocalyptic popular culture. To recall the political connotations of the pop cultural post-oil dystopia, we might analyze two non-disaster films that had a significant impact on peakists and peak oil authors, *Mad Max* (1979) and *Mad Max 2: Road Warrior* (1981).²⁰ Over three quarters of all respondents had seen each film, and peakists referred to them regularly in their responses. A female adherent, for example, said that “the Mad Max scenario always springs to mind” when she thinks of the future, while a Connecticut man noted that “some people wish they lived in a mad max world.”²¹

Released in 1979 and 1981 in Australia and soon thereafter in the U.S., the *Mad Max* films caused a sensation stateside. Although their landscape and playful absurdity were quintessentially Australian, director George Miller seamlessly adopted elements of the Hollywood Western genre. Set in the near future, *Mad Max* presents a post-nuclear, deserted, Hobbesian landscape where society’s institutions are rapidly disappearing. Only the heroic actions of “the Bronze,” leather-clad policemen such as protagonist Max (Mel Gibson), prevent gangs of drug-addled motorcycle outlaws from committing even more thefts, rapes and murders. In the second film, set some years in the distant future, a now solitary Max—his wife and child murdered in the first film— helps a small community (a “civilized society”) struggling to guard their oil rig compound and treasure

¹⁹ Flynn 2011, 73, 234, 127, 205. This aspect of the novel shows that the mindset that leads to the kind of problematic connections that Malthusian environmentalists made between population control and the global South in the 1960s and 1970s is still present, to some extent.

²⁰ *Mad Max*, George Miller, 1979; *Mad Max 2: Road Warrior*, George Miller, 1981.

²¹ Respondents 9599590 and 9597368.

trove of petroleum against a depraved band of desperate outsiders. Here he is the stranger come to town, described as the “Man With No Name” in an explicit reference to spaghetti Westerns.

The *Mad Max* films struck a chord with American viewers for a number of reasons. As we saw in chapter 2, oil scarcity and energy independence were a regular concern for Americans in the 1970s. Remarking on the connection between *Mad Max* and petroleum dependency, screenplay co-writer James McCausland wrote in 2006 that “George [Miller] and I wrote the script based on the thesis that people would do almost anything to keep vehicles moving and the assumption that nations would not consider the huge costs of providing infrastructure for alternative energy until it was too late.”²² This suggests that the series was intended as a liberal cautionary tale against fossil fuel dependency, but in the early 1980s the *Mad Max* vision also mirrored the law-and-order politics of conservatives such as Richard Nixon and Ronald Reagan.²³ In the first film, Max arrests a marauder and brings him to court, only to find that the witnesses are too intimidated to testify. Liberal law enforcement solutions fail to bring the killer to justice, and he walks free. Like the heroes of similar action films of the era, such as the *Dirty Harry* (1971-1988) and *Death Wish* (1974-1994) series, the white male hero can only enact justice by stepping outside the law.²⁴ And in *World Made By Hand*, the post-

²² James McCausland, “Scientists' warnings unheeded” *The Courier-Mail*, December 4, 2006, <http://www.couriermail.com.au/business/scientists-warnings-unheeded/story-e6freqmx-1111112631991>. Accessed April 26, 2010.

²³ J. Emmett Winn, “Mad Max, Reaganism and the Road Warrior,” *Kinema: A Journal for Film and Audiovisual Media* 23 (2009): 57-75.

²⁴ The Dirty Harry series is *Dirty Harry*, Don Siegel, 1971; *Magnum Force*, Ted post, 1973; *The Enforcer*, James Fargo, 1976; *Sudden Impact*, Clint Eastwood, 1983; and *The Dead Pool*, Buddy Van Horn, 1988. The Death Wish series is *Death Wish*, Michael Winner, 1974; *Death Wish II*, Michael Winner, 1982, *Death*

apocalyptic crisis brings about a return to traditional, patriarchal gender roles, consistent with Reagan's "family values" rhetoric and evocation of the citizen as a solitary, disembodied actor in a free marketplace.

These conservative tropes are emphasized by the threat of the outsiders in both films. In the 1980s, Reagan and other conservatives regularly asserted that various minority groups (such as African-Americans, leftists, and homosexuals) posed a threat to the "traditional" American social order.²⁵ In *Mad Max* and some peakist fantasies, villains are coded to embody the threats posed by each of these groups. Their primary aesthetic is punk, complete with leather clothes, tattoos, earrings, and mohawks. Although punks are not necessarily leftists, they represent the threat of youthful rebellion that has been associated with the left since the 1960s. Especially in *The Road Warrior*, the villains also represent the threat of sexual deviancy. Humungus, their leader, is nearly naked, with a body-builder physique, criss-crossing leather straps, and an S&M hockey mask. Two male followers form a gay couple: Wez, who sports a pink Mohawk and wears feathers around his neck, and Golden Boy, with long blonde hair and a black leather top with nipple cut-outs. In both films, the threat of deviant sexuality is not merely hypothetical, since the outsiders are sadists who gang-rape their victims.

At the same time, Humungus and his followers signify the racial other via the film's connection to the "savages" in many Hollywood Westerns, Native Americans. They are adorned with feathers, face paint, and mohawks, and they circle the "fort" of the

Wish 3, Michael Winner, 1985; *Death Wish 4: The Crackdown*, J. Lee Thompson, 1987; and *Death Wish V: The Face of Death*, Allan A. Goldstein, 1994.

²⁵ See Philip Jenkins, *Decade of Nightmares: The End of the Sixties and the Making of Eighties America* (Oxford: Oxford University Press, 2006), 237-243; Sean Wilentz, *The Age of Reagan: A History, 1974-2008* (New York: HarperCollins, 2008), 180-187; and Natasha Zaretsky, *No Direction Home: the American Family and the Fear of National Decline, 1968-1980* (Chapel Hill: UNC Press, 2007), 227-244.

community's oil rig in souped-up motorcycles. Similarly, in *World Made By Hand*, Wayne Karp and his gang are sexually deviant, racialized outsiders who are "less like less like their own parents and forbears and more like the Iroquois who had inhabited the same area four hundred years earlier," sport a *Mad Max* punk aesthetic, and brutally sodomize the town preacher when they take him captive.²⁶ In *Shut Down*, the black and Latino gangs of "sadists" pose a more familiar (if equally phantasmagoric) sexual threat to heterosexual whites, declaring that their march to Corbett will provide "cracka' hoe's fo all a bro's" as they dance "in the middle of the street inches away" from one another, "eagerly bumping and grinding away on each other."²⁷ In these ways, recent post-peak visions, while anti-capitalist and even anti-American, were clearly following the social conservatism of yesterday's post-apocalyptic fantasies.

White American Masculinity in the Twenty-First Century

The similar articulations between whiteness, masculinity, and heteronormativity in *Mad Max*, which found a cult audience in the United States in the 1980s, and peakists' predictions in the mid-2000s might suggest that little had changed in the intervening three decades. But while peak oil visions of a reinvigorated white masculinity clearly drew on *Mad Max* and other sources, we should see them as a response to the particular concerns and anxieties around white masculinity in the twenty-first century. To explore this dynamic, I focus on the relationship between changes in American political economy, the anti-immigrant "Latino threat" narrative, gender equality and mainstream conceptions of

²⁶ Kunstler 2008, 267.

²⁷ Flynn, 239, 257.

American manhood.²⁸

While a “crisis in masculinity” is seemingly always at hand, there have been significant changes in labor and political economy over the last half-century that transformed life for many American males. Deindustrialization has been underway since the early 1970s, but the decline in manufacturing employment as a percentage of total work has been particularly sharp over the last decade. While the total number of manufacturing jobs in the U.S. has remained relatively stable for the last forty years, the nation’s population has increased, so that manufacturing workers now make up less than 10% of all workers, down from 20% in 1980 and nearly 30% in 1960.²⁹ Whereas blue-collar jobs once promised a middle-class salary and benefits—as a result of hard-fought union victories in the early and mid-twentieth century—that is less and less the case. Shifting patterns in employment and politics led to the transfer of large numbers of jobs from union-heavy Northeast and Mideast states to right-to-work states in the Southeast and Southwest, while changes in labor law have made unionization more difficult. Furthermore, the actual work of blue-collar employment is not what it once was. Jobs that are considered “manufacturing” are now often quite similar to what we usually think of as “white-collar” enterprises. Due to technological changes that have increased productivity (and made many workers redundant), “factories” are now as likely to be called “Technology Distribution Centers” and require workers that are well-educated and

²⁸ This analysis assumes that masculinity is a social construct. While we should always be aware that there is never such a thing as a monolithic model of masculinity—different groups perform different masculinities based on race, ethnicity, class, education, gender, sexual orientation and other factors—I hold that mainstream popular culture plays a powerful role in forging hegemonic (or, as I put it in this chapter, “mainstream”) gender expectations, which are sometimes enforced by social, cultural and economic actions. See R.W. Connell, “The Social Organization of Masculinity,” in Stephen M. Whitehead and Frank J. Barrett, eds., *The Masculinities Reader* (Cambridge, UK: Polity Press, 2001): 30-50.

²⁹ U.S. Bureau of Labor Statistics.

computer-literate.³⁰ According to one analysis, three out of ten of American jobs counted as “manufacturing” are “things that would look to most people like white-collar service jobs: Sales, engineering, design, that sort of thing.”³¹

The psychological influence of the shift from “blue-collar” to “white-collar” work was a frequent topic of conversation in the late 1990s. Groups like the Promise Keepers, a Christian men’s organization, and events like the Million Man March sought to redefine masculinity. In popular culture, where dominant gender roles and expectations are often expressed or forged, a slate of films, such as *In the Company of Men* (1997), *American Beauty* (1999), *Office Space* (1999), and especially *Fight Club* (1999) dramatized the alienation and repressed anger that heterosexual white men were said to be suffering as a result of the cubicles and corporate culture of white-collar work.³² In her influential book *Stiffed* (1999), Susan Faludi observed that the nation’s “pulse takers,” including “newspaper editors, TV pundits, fundamentalist preachers, marketers, legislators” agreed that “American manhood was under siege” in the 1990s.³³ As *Fight Club*’s Tyler Durden (Brad Pitt) put it, some (white) American men saw themselves as “an entire generation pumping gas, waiting tables; slaves with white collars... No purpose or place.

³⁰ Sophie Quinton, “In Manufacturing, Blue-Collar Jobs Need White-Collar Training,” *National Journal*, February 27, 2012, <http://www.nationaljournal.com/whitehouse/in-manufacturing-blue-collar-jobs-need-white-collar-training-20120226>. Accessed May 29, 2013.

³¹ Neil Irwin, “American manufacturing is coming back. Manufacturing jobs aren’t,” *The Washington Post*, November 19, 2012, <http://www.washingtonpost.com/blogs/wonkblog/wp/2012/11/19/american-manufacturing-is-coming-back-manufacturing-jobs-arent/>. Accessed May 29, 2013.

³² *In the Company of Men*, Neil LaBute, 1997; *American Beauty*, Sam Mendes, 1999; *Office Space*, Mike Judge, 1999; *Fight Club*, David Fincher, 1999.

³³ Susan Faludi, *Stiffed: The Betrayal of the American Man* (New York: William Morrow, 1999), 6. Of course, wealthy white men had been complaining of the feminization of labor and the need for “authentic” physical experiences for over a century, since (at least) the shift from artisan to industrial manufacturing. See T.J. Jackson Lears, *No Place of Grace: Antimodernism and the Transformation of American Culture, 1880-1920* (New York: Pantheon, 1981), especially 59-96.

[They] have no Great War, no Great Depression. [Their] great war is a spiritual war. [Their] great depression is [their] lives.”

Such claims should be taken with a grain of salt, since there was hardly a decade in the twentieth century that masculinity (meaning white masculinity) wasn't declared to be in a state of crisis by one constituency or another. In the Progressive Era, as Kevin P. Murphy has shown, Theodore Roosevelt and others promoted “strenuous manhood” by contrasting the “redblood” American with the all-too-common “mollycoddle,” the too-common “weakling and the coward” who were “out of place in a strong and free community.”³⁴ In the 1950s, as K.A. Cuordileone has documented, America's Cold War masculinity was threatened by “corporatism and the decline of the self-made man; the affects of affluence and comfort; ‘civilizing,’ emasculating women; the power of a sentimental, feminine mass culture; and the excessive influence of women on boys and men.”³⁵ In the 1970s and 1980s, responses to second-wave feminism included openly antifeminist “Men's Rights” such as the Coalition of Free Men, which claimed that “it is actually women who have the power and men who are most oppressed.”³⁶

However, as Faludi and others have noted, men's roles in the twentieth century United States became closely tied to their labor, and there were major political economic developments since the 1970s, due primarily to neoliberal globalization and the decline of unions, that changed men's work roles. By 2010, when media commentators returned

³⁴ Theodore Roosevelt, lecture at Harvard University, 1907. Quoted in Kevin P. Murphy, *Political Manhood: Red Bloods, Mollycoddles, and the Politics of Progressive Era Reform* (New York: Columbia University Press, 2010), 1.

³⁵ K. A. Cuordileone, *Manhood and American Political Culture in the Cold War* (Oxford: Routledge, 2005), 12.

³⁶ Michael A. Messner, “The Limits of ‘The Male Sex Role’: An Analysis of the Men's Liberation and Men's Rights Movements' Discourse,” *Gender & Society* 12, no.3 (1998), 266.

to the subject of a crisis in masculinity, these trends had only accelerated. Between 2000 and 2010, the United States lost nearly one-third of its manufacturing jobs, as over 40,000 factories closed. The economic recession of 2008 had a disproportionate impact on men—according to one estimate, they had held nearly three out of four jobs that disappeared between 2007 to 2011. Indeed, men’s unemployment rate during this period exceeded women’s by only 25% because so many men stopped actively searching for employment, and thus were not counted by the Labor Department’s official statistics. According to some commentators, the future was even more dire. Some surmised that changes in the global economy, which had replaced American manufacturing with automation or low-wage work in the global South (often in nations with few labor laws or regulations), might very well signify “the end of [American] men,” since “the vast majority” of “the 15.3 million new jobs projected to sprout up over the next decade will come in fields that currently attract far more women than men.”³⁷ Others observed that women now earned 60% of bachelor’s and master’s degrees, increasingly a pre-requisite for steady employment beyond low-wage, low-benefit service jobs.

Even so, the demise of American men was greatly exaggerated, which many journalists noted below the fold, if at all. In 2011, only four percent of *Fortune 500* CEOs and 17% of U.S. Senators were female. Women earned, on average, 17.8% less for performing the same work as men—in the 534 occupations listed by the Bureau of Labor Statistics, women with the same education and experience earned less than men in

³⁷ Andrew Romano and Tony Dokoupil, “Men’s Lib,” *Newsweek* 15, no. 13 (2010), 43.

527 of them.³⁸ While baby steps were certainly being taken towards gender equity, talk of true equality, let alone the “end of men,” was premature. Discourse about a crisis of masculinity, then, was as much about perception, as it has always been. But as Faludi observed, the consequences of globalization and deindustrialization had real psychological consequences. One peakist noted that in losing his job during the recession, his father had “lost the former relevancy that gave him the opportunity to make a living. He is suffering.”³⁹ In a post-industrial society, many men lost not only the “utilitarian world” of blue-collar labor that had provided employment, but were “thrust into an ornamental realm” where manhood was now defined by “appearance, by youth and attractiveness, by money and aggression, by posture and swagger and ‘props,’ by the curled lip and petulant sulk and flexed biceps.”⁴⁰ Predicting the reversal of this ornamentalization, one peakist, “Bigdoug2053,” claimed that “things will be better for succeeding generations” in the post-peak world, “as localized economies eventually give men meaningful, though likely physically harder, work that will help support families and communities.”⁴¹

In the 2000s, this increasing ornamentalization led to the declaration of a new masculine identity: the metrosexual. As Toby Miller put it, metrosexual men were “feminized males who blur the visual style of straight and gay in a restless search ‘to

³⁸ Bureau of Labor Statistics, “Highlights of Women’s Earnings in 2011,” <http://www.bls.gov/cps/cpswom2011.pdf>. Accessed May 13, 2013.

³⁹ “The Oil Drum: Campfire,” The Oil Drum, <http://campfire.theoil Drum.com/node/6171>. Accessed June 9, 2013.

⁴⁰ Faludi, 38.

⁴¹ “Why Are the Mean Girls Picking On *World Made By Hand*?” The Chatelaine’s Keys, May 4, 2008, http://sharonastyk.com/2008/05/04/kunstler-gets-defensive-meanderings-on-_world-made-by-hand_/. Accessed February 22, 2012.

spend, shop and deep-condition.”⁴² While the ideal male body, men’s fashion, and certain aspects of home décor were subjects that most men have probably always been at least implicitly aware of, metrosexuality required a new level of knowledge and curation of the self, primarily through mass consumption. The growing acceptance of homosexuality, at least in blue states and large cities, led to a growing continuity between public and private standards of gay subcultures and expectations for straight men, with the TV show *Queer Eye for the Straight Guy* (2003-2007) as a prominent example.⁴³ By the late 2000s, the expectations for even non-metrosexual American men seemed to be changing, with the explosion of new skin creams, false eyelashes, nail polish, grooming tools (for “manscaping”) and hair care products designed specifically for men.⁴⁴

Retrospectivity: Back to the Future

Even as these shifts in political economy, culture, and gender roles were creating the need for a new conception of white male heterosexuality—or perhaps, from a more utopian standpoint, the elimination altogether of categories of identity based on such essentialist notions as “sex” and “gender”—popular conceptions of masculinity were looking backwards. This “retrospectivity,” as some observers called it, began in the wake of the September 11th attacks.⁴⁵ Although George W. Bush’s “dead or alive” cowboy

⁴² Toby Miller, “A Metrosexual Eye on Queer Guy,” *GLQ: A Journal of Lesbian and Gay Studies* 11, no. 1 (2005), 114.

⁴³ *Queer Eye for the Straight Guy*, David Collins and David Metzler, Bravo, 2003-2007.

⁴⁴ See Alexandra Finkel, “Nail polish for men is latest trend in grooming,” *New York Daily News*, November 3, 2011, <http://www.nydailynews.com/life-style/fashion/nail-polish-men-latest-trend-grooming-article-1.971247#ixzz2UJms272>. Accessed May 29, 2013.

⁴⁵ On “retrospectivity” among straight white men, see Romano and Dokoupil. On the “retrospectual code,” see Tom Hawks, “The 50 Points of the Retrospectual / Neospectual Code, for Real Men Today,” *The Way One Vike Sees It*, <http://onevike.blogspot.com/2010/02/50-points-of-retrospectual-neospectual-code.html>.

machismo was mocked by liberals, it provided a model of masculinity that sought security not in an acknowledgement of a changing twenty-first century, but in a mythologized American history of Western individualism and mastery over nature.⁴⁶ In the same vein, the counterterrorism expert, epitomized by Jack Bauer in the TV show *24*, hearkened back to the cowboy as a model of heroic masculinity. Bauer, a patriot and man's man, was willing to use violence and step outside the laws of society in order to protect it. No less an authority on sexuality than former President Bill Clinton praised Bauer, once telling NBC's "Meet the Press" that "when Bauer goes out there on his own and is prepared to live with the consequences, it always seems to work better."⁴⁷

In a cultural moment that seemed to celebrate obstinacy and rigidity, other noteworthy models of masculinity were similarly backward-looking. Firemen in particular, lionized due to their fatal rush into the burning World Trade Center towers, "came to stand as exemplars of a way of life that was encoded as particularly and typically American: selfless, heroic, individually brave citizens rising in a moment of need to serve the common good," as Hamilton Carroll observed.⁴⁸ As a bastion of blue-collar white ethnic masculinity (and even segregation⁴⁹) during a moment rife with anti-immigration sentiment, and a unionized public worker during a neoliberal era, the

Accessed June 11, 2013. On the broader phenomenon of recuperating previous gender roles, see Nishant Shahani, *Queer Retrosexualities: The Politics of Comparative Return* (Plymouth, UK: Lehigh University Press, 2012).

⁴⁶ See Ryan Malphurs, "The Media's Frontier Construction of President George W. Bush," *The Journal of American Culture* 31, no. 2 (2008): 185-201.

⁴⁷ Michael McAuliff, "Torture like Jack Bauer's would be OK, Bill Clinton says," *New York Daily News*, October 1, 2007.

⁴⁸ Hamilton Carroll, *Affirmative Reaction: New Formations of White Masculinity* (Duke University Press Books, 2011), 19.

⁴⁹ Fire departments have remained one of the more segregated professions in the United States, and have been the site of a number of lawsuits over "reverse racism" against white applicants. See Carol A. Chetkovich, *Real Heat: Gender and Race in the Urban Fire Service* (New Brunswick, NJ: Rutgers University Press, 1997).

fireman was a particularly anachronistic model of heroism in the early twenty-first century. The glorification of disappearing blue-collar work in popular culture, primarily on TV shows such as *American Chopper* (2003-2010), *Dirty Jobs* (2005-2012), *Deadliest Catch* (2005-present) and *Ice Road Truckers* (2007-present) followed the heroic mold of the September 11th firefighters.

Of course, any analysis of early twenty-first century heterosexual masculinity must acknowledge that many of the dominant models of masculinity in popular culture in the 2000s did not fit into a “retrosexual” model, and often featured people of color. Some of the most visible and admired male trendsetters during this period were black hip hop artists such as Jay-Z and Dr. Dre; movie stars such as Will Smith and Samuel L. Jackson; and athletes such as Dwayne Wade, Blake Griffin and LeBron James. At the same time, the success and lifestyles of these celebrities are generally seen as beyond the reach of the average (white) male, because of their extreme wealth and because their success is seen as the result of their race—in the case of athletes, their athletic ability; in the case of musicians and movie stars, their natural “cool.”⁵⁰ In contrast, the kinds of back-to-the-future masculinities I focus on here are freely available to all. To some extent, we might see the focus on “regular guys” such as the fireman and blue-collar worker as a response to the media’s lionization of wealthy athletes, musicians, and movie stars.

When the term “retrosexual” was coined, it referred to a very specific model: the strong, silent, charismatic Don Draper of the TV show *Mad Men* (2007-present).⁵¹ But the term quickly morphed into something broader: the “real men” of the Greatest

⁵⁰ See Richard Majors, “Cool Pose: Black Masculinity and Sports,” in Stephen M. Whitehead and Frank J. Barrett, eds., *The Masculinities Reader* (Cambridge, UK: Polity Press, 2001): 209-218.

⁵¹ *Mad Men*, Matthew Weiner, AMC, 2007-present.

Generation. As one cultural commentator put it, the “retrosexual” is the “anti-metrosexual, the opposite of that guy who emerged in the 1990s in all his pedicured, moussed-up, skinny-jeans glory. That man-boy was searching for his inner girl, it was argued. The retrosexual, however, wants to put the man back into manhood.”⁵² Blogs and Facebook pages devoted to the trend popped up, along with *The Retrosexual Manual: How to Be a Real Man* (2008), which advertised that “it’s time to go back to basics—back to when men were men and women made breakfast the morning after.”⁵³ One critical review of the term argued that it was “about returning to a time when men were men... A simpler time when it was clear what it meant to be a man and what his responsibilities were.”⁵⁴ Proponents of retrosexuality, like the authors of “The Art of Manliness” blog (and book), noted that re-learning “Manly Skills,” such as “How to Wire An Outlet,” “How to Raise Backyard Chickens” and “How to Bug-In: What You Need to Know to Survive a Grid-Down Disaster” were a necessary part of regaining one’s manhood.⁵⁵

If we recall the kinds of activities described in chapter 1, it should be clear that peakists, survivalists, and so-called “retrosexuals” were engaged in some overlapping activities. While each group might be doing them for seemingly different reasons, I want to suggest that they were responding to the same impulse: a resistance to the perceived feminization of labor and the specialization of knowledge that, without alternate models

⁵² Lini S. Kadaba, “The New Retrosexual: Putting the Man Back in Manhood,” *The Philadelphia Inquirer*, April 23, 2010, <http://www.capecodonline.com/apps/pbcs.dll/article?AID=/20100423/LIFE/100429929/-1/LIFE0707>. Accessed June 11, 2013.

⁵³ Dave Besley, *The Retrosexual Manual: How to Be a Real Man* (Chicago: Prion, 2008), front cover.

⁵⁴ “‘Retrosexuals’: The Latest Lame Male Catchphrase,” *Salon*, http://www.salon.com/2010/04/07/retrosexuals_silliness/. Accessed June 11, 2013.

⁵⁵ “Many Skills,” *The Art of Manliness*, <http://www.artofmanliness.com/category/manly-skills/>. Accessed June 11, 2013. Brett McKay and Kate McKay, *The Art of Manliness: Classic Skills and Manners for the Modern Man* (Cincinnati, OH: HOW Books, 2009).

of masculinity, looked backwards instead of forward. As the white male peakist in this chapter's epigraph put it, "I have roamed North America at will from Ixtapa to Halifax. I eat like a king. I want for nothing. I know that my ancestors were more connected to nature, that they were survivors, but I am wealthy and soft."⁵⁶ Retrosexuality, in all of its forms, held the promise of making these men "hard" again.

Anti-Feminism and the Latino Threat

That the bygone era when "men were men" just happens to coincide with a period of incredible white male privilege, before feminism and the civil rights movement, is no coincidence. However unpopular anti-feminist and anti-immigration political positions were among liberals and leftists (such as most peakists) throughout the 2000s, they undergirded the popular models of white masculinity that emerged—the cowboy, the fireman, the counterterrorism agent, the Wild West lawman, and the retrosexual prepper. Given the changing economic situation of the United States, what's required, as Andrew Romano and Tony Dokoupil argued, "is not a reconnection with the past but a liberation from it; not a revival of the old role but an expansion of it."⁵⁷ However, as Stephanie Coontz has pointed out, "one thing standing in the way of further progress for many men is the same obstacle that held women back for so long: overinvestment in their gender identity instead of their individual personhood."⁵⁸ This overinvestment is not mere insecurity but is reified by cultural norms. As Coontz noted, statistics show that "men who take an active role in child care and housework at home are more likely than other

⁵⁶ Respondent 9591897.

⁵⁷ Romano and Dokoupil, 43.

⁵⁸ Stephanie Coontz, "Myth of Male Decline," *New York Times*, September 30, 2012, SR1.

men to be harassed at work,” and “men who request family leave are often viewed as weak or uncompetitive and face a greater risk of being demoted or downsized.”⁵⁹

Similarly, journalist Hanna Rosin noted that when she “asked several businesswomen in Alexander City [Alabama] if they would hire a man to be a secretary or a receptionist or a nurse... many of them just laughed.”⁶⁰ Since mainstream cultural models of alternate masculinity have not emerged, some white men—whether blue-collar workers who now found themselves out of work, or white-collar workers whose masculinity now seems merely ornamental—felt a sense of victimhood, caught between a changing economy and rigid gender roles.

This sense of male victimization was articulated by conservatives to xenophobia and sexism. Leo R. Chavez has described the wave of xenophobic discourse and action in the 1990s and 2000s as a “Latino Threat Narrative,” which sees Latinos (particularly Mexicans) as “an invading source from south of the border” bent on “destroying the American way of life.”⁶¹ A 2008 American National Election Studies survey found that 44% of Americans found it “very” or “extremely” likely that “recent immigration levels [would] take jobs away from people already” here, with another 41% responding “somewhat likely.”⁶² Of course, there is little connection between job loss and increased immigration—most immigrants from Latin America, especially undocumented immigrants, are forced into working low-paying, no-benefit jobs that most whites have

⁵⁹ *Ibid.*

⁶⁰ Hanna Rosin, “Who Wears the Pants in This Economy?” *New York Times*, September 16, 2012, MM8.

⁶¹ Leo R. Chavez, *The Latino Threat: Constructing Immigrants, Citizens, and the Nation* (Stanford: Stanford University Press, 2008), 2.

⁶² American National Election Studies, 1992–2008. Also see Christopher P. Muste, “The Dynamics of Immigration Opinion in the United States, 1992–2012,” *Public Opinion Quarterly* 77, no. 1 (2013): 398–416.

been unwilling to accept, even when the alternative is unemployment.⁶³

Nonetheless, there are demographic and political changes on the horizon. Stephen Chait noted that as a result of immigration and, to a lesser extent, differentials in birth rates, “the nonwhite proportion of the electorate grows by about half a percentage point” ever year, so that “in every presidential election, the minority share of the vote increases by 2 percent.” Projecting these changes into the future, this means that “in 30 years, nonwhites will outnumber whites” as voters.⁶⁴ Given that people of color, while hardly a monolithic voting bloc, have historically tended towards the Democratic Party—partially as a result of indifference and hostility from the Republican Party, of course—the Latino threat narrative has some connection to reality, if we squint hard enough. Indeed, immigration became a key issue during the 2012 election, as white hard-core conservatives pushed Republican candidates to make increasingly intolerant, even racist anti-immigration promises, which worked to their detriment in the general election.

We might not expect peakists and Tea Partiers to mix, and indeed their politics are, for the most part, diametrically opposed. But both groups are predominately white, male, educated, and middle-aged, and predict an impending decline on the horizon.⁶⁵

While many male peakists do not fit the model of the “retrosexual,” the comments of some male adherents on Internet forums make it clear that conservative articulations of

⁶³ See Heidi Shierholz, “Immigration and Wages – Methodological Advancements Confirm Modest Gains for Native Workers.” Economic Policy Institute, February 4, 2010; Elizabeth Dwoskin, “Why Americans Won’t Do Dirty Jobs,” *Blomberg Businessweek*, November 9, 2011, <http://www.businessweek.com/magazine/why-americans-wont-do-dirty-jobs-11092011.html#p2>. Accessed June 11, 2013.

⁶⁴ Jonathan Chait, “2012 or Never,” *New York*, February 26, 2012, <http://nymag.com/news/features/gop-primary-chait-2012-3>. Accessed May 1, 2013.

⁶⁵ See Kate Zernie and Megan Thee-Brenan, “Discontent’s Demography: Who Backs the Tea Party, ,” *New York Times*, April 15, 2010, A1. For a thicker portrait of Tea Party activists, see Vanessa Williamson, Theda Skocpol and John Coggin, *The Tea Party and the Remaking of Republican Conservatism* (New York: Oxford University Press, USA, 2011), 3-82.

male victimhood, tied to anti-feminism and the Latino threat narrative, have crossed some political boundaries. In the last few pages of this chapter, I want to argue that these kinds of political connotations are also implicit in many post-apocalyptic visions, among peakists and throughout American popular culture.

Retrosexuality on the Small Screen: Revolution

A post-apocalyptic reimagination of the “crisis of masculinity” caused by the feminization of labor and the loss of blue-collar jobs during the recession is a central theme of a the TV show *Revolution* (2012-present), which received a great deal of hype in 2012, in part it because it was produced by J.J. Abrams (of *Lost*) and directed by John Favreau (of the *Iron Man* franchise).⁶⁶ Although hardly exceptional in its premise or execution, the show is useful here because of the way that it reflects common themes in current and recent American popular culture.

⁶⁶ *Revolution*, Eric Kripke, NBC, 2012-present. *Lost*, J.J. Abrams, 2004-2010. *Iron Man*, Jon Favreau, 2008; *Iron Man 2*, Favreau, 2010.



Figure 5.1. NBC’s *Revolution* presents a post-apocalyptic world in which masculine individualism and the capacity for violence and physical labor are rewarded. Far left: former Google millionaire Aaron Pittman. Center left: perfectly-coiffed teenager Charlie Matheson. Center right: former soldier Miles Matheson. Far right: former white-collar worker Tom Neville. Source: <http://www.nbc.com>.

Set fifteen years after “the blackout,” when all electronics (including automobiles) suddenly ceased to function, the show presents a familiar Hobbesian post-apocalyptic terrain. The former United States is controlled by a patchwork of regional militias, while the rest of the surviving population tries to eke out a living through subsistence farming. Although its nominal star is the teenage daughter Charlie (Tracy Spiridakos), her character is an anodyne blend of good-willed naiveté and kick-ass girl power. As is often the case, Charlie is simultaneously a strong female who shows that women are just as capable of violence as men (the bow being the current weapon of choice), but also heavily sexualized—a number of TV critics objected to her skimpy outfits, heavy makeup, and perfectly-coiffed hair.⁶⁷ The show’s real drama revolves around the battle

⁶⁷ See, for example, Torie Bosch, “The Biggest Problem With the Post-Apocalyptic Show *Revolution*: the

of a group of men for power in the post-apocalyptic world, with regular flashbacks to the contemporary United States that serve to naturalize existing conceptions of masculinity.

The shortest-lived of these male characters is Ben Matheson, Charlie's father, who is killed by the Monroe Militia in the first episode. A caring father who worked at the University of Chicago as a scientist developing cheap, renewable energy, Ben's values are out of step with the world that the blackout creates—or returns us to. In a flashback, he is shown leading his family out of Chicago until a scavenger steals their wagon of food. Holding a shotgun to the man as he absconds with their provisions, Ben finds himself unable to fire—his wife must step forward to accomplish the task. In the show's present, the Monroe Militia arrives at the family's commune to capture Ben. Seeking to negotiate instead of defend himself—as, it is suggested, he had done many times before, when he surrendered weapons and foodstores—he is ultimately shot to death, and thus unable to prevent his son being taken prisoner.

Ben's opposite is his brother, Miles. Before his death, Ben asks his compatriots to seek out Miles in Chicago. They find a man tough and hardened, drinking a single-malt scotch while awaiting what appears to be certain death at the hands of the approaching Militia. Miles turns out to be the former commander of the Militia and a military-trained assassin. With an eternal five-o'clock shadow and a flip remark for every situation, Miles is a classic rogue, but he's also able to easily dispatch a dozen men with a sword or his bare hands. Miles' training in the pre-blackout U.S. military has equipped him for success in any situation. In the post-apocalypse, as in our current world, the show

Women's Perfect Hair," *Slate*, September 14, 2012, http://www.slate.com/blogs/future_tense/2012/09/14/revolution_the_post_apocalyptic_show_gets_the_hair_of_female_stars_tracy_spiridakos.html. Accessed June 7, 2013.

suggests, military might and the ability to inflict violence on others is the most important survival skill of all.

The show's commentary on the feminization of labor is highlighted by the contrast between Aaron Pittman, a friend of Ben Matheson who sets out on the show's adventures with Charlie, and Tom Neville, a major in the Monroe Militia. Before the blackout, Aaron was the "wizard of Google," with a beautiful wife, four homes, a limousine, a plane and 300 employees working under him. When we first meet him after the blackout, however, he is clearly a burden on his community. Chubby with thick-rimmed glasses, Aaron's weight and physical incompetence is a regular source of humor. He insists on joining the mission to recover the captured Danny, but admits that he is "afraid of bees" before complaining about "chafing" issues. Later, he acknowledges that he is often "weak and afraid." Considered a genius before the blackout, Aaron is revealed to be less than a man in the post-apocalyptic world. Months after the blackout, he and his wife deserted the city, but she contracts dysentery because he allowed her to drink from a sewage-filled lake. Soon thereafter, he fails to protect her from two looters, and they are saved only by the aid of a stronger, leaner man who excels in physical combat. Aaron abandons his wife the next day, believing that she will fare better under the protection of a group of strangers.

Tom Neville undergoes the opposite transformation. He had been a white-collar worker, an insurance adjuster. On the day of the blackout, he was berated and then fired by a younger colleague for granting a claim that he could have denied, his hands fidgeting as he sits in an office chair in a button-down shirt and tie. When he returns

home, he politely asks his neighbors to turn their music down, but they simply ignore him. He begins his transformation when the same neighbor breaks into his home six weeks after the blackout. After Neville pummels him to death, he rises a new man. When we see him fifteen years later, he is a leader of the militia, strong, competent, physically capable, and smart.

When Neville holds Aaron and Charlie hostage, he delivers a monologue that encapsulates the show's view of post-apocalyptic masculinity:

I know you. I recognized you the minute I laid eyes. That's Aaron Pittman, the Wizard of Google, you been on the cover of *Wired* magazine more times than I can count. I bet you were high and mighty when the lights were on! I bet you'd boss around those poor bastards in their tiny cubicles! I was one of those poor bastards myself. But now look at you, and look at me. Now you need Miles saving your fat, pockmarked ass!⁶⁸

Neville's diatribe combines a number of ideas that were common in American popular culture. He resents the power that elites like Pittman held over middle-level workers like himself, and learned from the blackout that stereotypically "liberal" qualities, such as empathy, compassion, and rational discourse are no longer rewarded—if they ever were. Concern for others, it is emphasized in almost every episode, is a potential weakness. Most importantly, in positing a Hobbesian scenario of all-against-all in a post-apocalyptic world which is often confused with a "state of nature," *Revolution* naturalizes patriarchal, violent gender constructs.

⁶⁸ *Revolution*, NBC, season 1, episode 10. First aired on November 26, 2012.

Race, Gender and Individualism

If, as discussed in chapter 3, the Internet of the 1990s and early 2000s is one ideal version of libertarian individualism, the post-apocalyptic scenario—in *World Made By Hand*, disaster films, and countless zombie attack scenarios and similar manifestations in the 2000s—is another. Claire P. Curtis has remarked that since post-apocalyptic narratives speak to “our desire to start over again,” they establish and depict the “state of nature” that political scientists have theorized about for centuries.⁶⁹ While Curtis gives equal attention to Locke, Rousseau, Rawls and Hobbes, it is really the latter’s violent vision of utter individualism and lawlessness that dominates the genre in all its recent incarnations. Theoretically, when government and social structures such as race, class and gender break down, there will be complete equality of opportunity, which would allow the strong, prepared, meritorious individual to persevere and survive. The individual can finally become what he should have been already, had he not been held back by the strictures of modern civilization.

Although it flashes the promise of egalitarianism, we should recall that individualism is a distinctly raced and gendered philosophy. As Elizabeth Fox-Genovese noted in her feminist critique of individualism, as a political philosophy it has “tended to depersonalize the individual, which it represented as simply a unit of society and the polity.” Indeed, to many, individualism’s appeal is its apparent colorblindness: the individual “might be male or female, tall or short, rich or poor, nurturing or aggressive,

⁶⁹ Claire P. Curtis, *Postapocalyptic Fiction and the Social Contract: “We’ll Not Go Home Again”* (New York: Lexington Books, 2010), 5.

for such attributes did not effect the individual's status as an individual.”⁷⁰

However, history has a long shadow. Until relatively recently, women, people of color, gays and lesbians, the poor or unpropertied, and various others were oppressed, disenfranchised, and/or enslaved, and these histories have consequences that reverberate for decades, if not centuries. In 2013, these groups are routinely denied opportunities and subject to institutional prejudice and individual acts of discrimination. Individualism relies on a theoretical equality of opportunity, but this equality has never existed in fact. To the extent that it ever exists, true individual freedom has only been enjoyed in the United States by white, wealthy, heterosexual males.

For those who don't recognize or acknowledge this fact, individualism can easily lead to prejudice and resentment. As Jack Turner identified, “at individualism's heart is a will to see the world in a self-congratulatory way, to construe one's achievements as entirely self-authored, to interpret accidental privileges as just deserts.” In this way, “the individualist's vainglory gives rise to distorted social perception” about the apparent inferiority of other groups.⁷¹ Absent an acknowledgement of historically persistent structural racism, sexism and classism and continuing discrimination, individualists find themselves justifying a given group's poverty, powerlessness, low wages or rate incarceration by referring to the individual failures of that group's members. When it is applied to topics such as federal attempts to reverse centuries of discriminatory practices, this “distorted social perception” can breed racial resentment and claims of reverse

⁷⁰ Elizabeth Fox-Genovese, *Feminism Without Illusions: A Critique of Individualism* (Chapel Hill: UNC Press, 1991), 122, 128.

⁷¹ Jack Turner, *Awakening to Race: Individualism and Social Consciousness in America* (Chicago: University of Chicago Press, 2012), 23.

racism. As Sally Robinson put it, “those who defend the existence of an unmarked, universally available individualism,” in the present or the post-apocalyptic future, are themselves practicing “identity politics in both subtle and overt ways.”⁷²

The link that I’ve drawn between peakism and socially conservative individualism does not hold true for all adherents, of course—some male commenters objected to the sexist and xenophobic connotations of *World Made By Hand*, and some survey respondents were active in Transition Towns and other collective endeavors. But the connections between post-apocalyptic imaginaries and the shifts in political economy, gender roles, and racial scapegoating in the United States in the mid-2000s provides a compelling explanation for the whiteness and maleness of this population. This is to say that the kinds of apocalyptic scenarios that peak oil authors and believers often focus on—driven by scarcity and peopled by individualists—can lead them to adopt positions that seem counter to their stated beliefs. The “retrosexual” opportunities that peakism and related ideologies offer are not reprehensible for the kinds of actions they can lead to—raising chickens and learning to farm, for example, are praiseworthy endeavors—but we should always remain mindful of the political, racial, and sexual connotations that they carry in their wake.

⁷² Sally Robinson, *Marked Men: White Masculinity in Crisis* (New York: Columbia University Press, 2000)

Conclusion

Given the motivations of some white, male peakists, it might be easy to write off the peak oil movement as merely another chapter in America's long history of misguided apocalypticism. After the wave of concern over oil depletion died down in 2009—because of the economic recession, which lowered energy usage and drew media attention to other issues, as well as the boom in “unconventional” petroleum, from tar sands to hydrofracking—this was the evaluation of most media commentators. This is not the approach this I have taken. In this conclusion, I highlight the lessons this dissertation has drawn about and from the peak oil movement, apply and extend them to the study of climate change, and suggest that the peak oil movement offers important lessons about contemporary environmental action, and politics in general.

Taking Crisis Seriously

The primary subject of this dissertation is a social movement not even five years in the rear-view mirror, but each chapter has argued that to truly understand peak oil believers, we need to historicize their concerns and actions. I have done so by presenting a number of different, interrelated perspectives on twentieth-century American history—a history of beliefs about abundance and scarcity; a history of oil production and prices; a history of the libertarian shift; a history of the development of Internet technology; a history of American apocalyptic thought; and a very recent history of white masculinity. In the first part of this conclusion, I ask the reader to consider one final perspective: our place in environmental history.

Most readers will no doubt be familiar with many of the changes in the natural environment that have occurred over the last thirty years, so a lengthy recapitulation is not necessary. Instead, I want to remind the reader of our current position. Although our sense of an ongoing environmental crisis has become, as Frederick Buell put it, simply a “way of life,” we are living in a moment of almost unimaginable danger as a result of our reliance on fossil fuels. The atmospheric carbon concentration recently passed 400 parts per million, the highest concentration in at least 800,000 years.¹ Increases in average temperature and sea rise are only the most well-known consequences of this increase, however. Weather patterns are shifting, leading to instability, violence, and mass migration, especially in the global South. Scholars estimate that climate change already adversely affects 300 million people and is responsible for 300,000 deaths each year.² Under current trends, one-third of the planet’s land will become desert by 2100, and the proportion in “extreme drought” will jump from the current three to 30 percent.³ Extreme weather events are on the rise—the three decades before 2008 “yielded four times as many weather-related disasters as the first three quarters of the 20th century combined.”⁴ Ocean ecosystems stand at the brink of collapse, with 90% of the large fish having disappeared from the oceans, primarily the result of ocean acidification and

¹ David Biello, “400 PPM: Can Artificial Trees Help Pull CO₂ from the Air?” *Scientific American*, May 9, 2013, <http://www.scientificamerican.com/article.cfm?id=prospects-for-direct-air-capture-of-carbon-dioxide>. Accessed June 1, 2013.

² John Vidal, “Global Warming Causes 300,000 Deaths a Year,” *Guardian*, May 29, 2009. This number is calculated as the result of floods, droughts, fires, new diseases, and small-scale warfare that can be attributed to anthropogenic climate change. By 2030, this number is expected to be as high as 500,000 people per year.

³ Eleanor J. Burke, Simon J. Brown, and Nikolaos Christidis, “Modeling the recent evolution of global drought and projections for the twenty-first century with the Hadley Centre climate model,” *Journal of Hydrometeorology* 7, no. 5 (2006): 1113-1125.

⁴ Charles M. Blow, “Farewell, Fair Weather,” *New York Times*, May 31, 2008.

wasteful industrial fishing.⁵ Up to 150 different species are going extinct every day, and if current trends continue, up to 30% of *all* known species—2,600,000 different species—will become extinct by 2050.⁶

Most presentations of this and similar information tend to conclude with a reminder that it is not too late. Indeed, it is not. The problem is that current rates of consumption, pollution and despoliation are not holding steady or declining. They are accelerating, as they have been doing since approximately 1950 (see figure 6.1).⁷ For example, in 2010 humans emitted roughly 37 billion tons of carbon, one quarter from the United States alone. With the increases in consumption and energy use per capita expected to occur outside of the West, that number may jump as high as 60 billion tons by 2030. But climate stabilization, a critical aspect of true sustainability, would require the entire world to reduce its overall consumption to the current poorest level. In the United States, this would require a 95 percent reduction in total consumption.⁸

⁵ Tom Levitt, “Overfished and Under-protected: Oceans on the Brink of Catastrophic Collapse,” CNN, March 27, 2013. <http://www.cnn.com/2013/03/22/world/oceans-overfishing-climate-change>. Accessed May 15, 2013.

⁶ Sigmar Gabriel, “Biodiversity 'Fundamental' to Economics,” BBC News, <http://news.bbc.co.uk/2/hi/science/nature/6432217.stm>. Accessed May 15, 2013.

⁷ Garry Peterson, “Visualizing the Great Acceleration,” <http://rs.resalliance.org/2008/12/04/visualizing-the-great-acceleration-part-ii/>. Data from William L. Steffen, Angelina Sanderson, Peter Tyson, Jill Jäger, Pamela A. Matson, Berrien Moore III, Frank Oldfield, *Global Change and the Earth System: A Planet Under Pressure* (Berlin: Springer, 2005).

⁸ Carl Boggs, *Ecology and Revolution: Global Crisis and the Political Challenge* (New York: Palgrave Macmillan, 2012), 32-33.

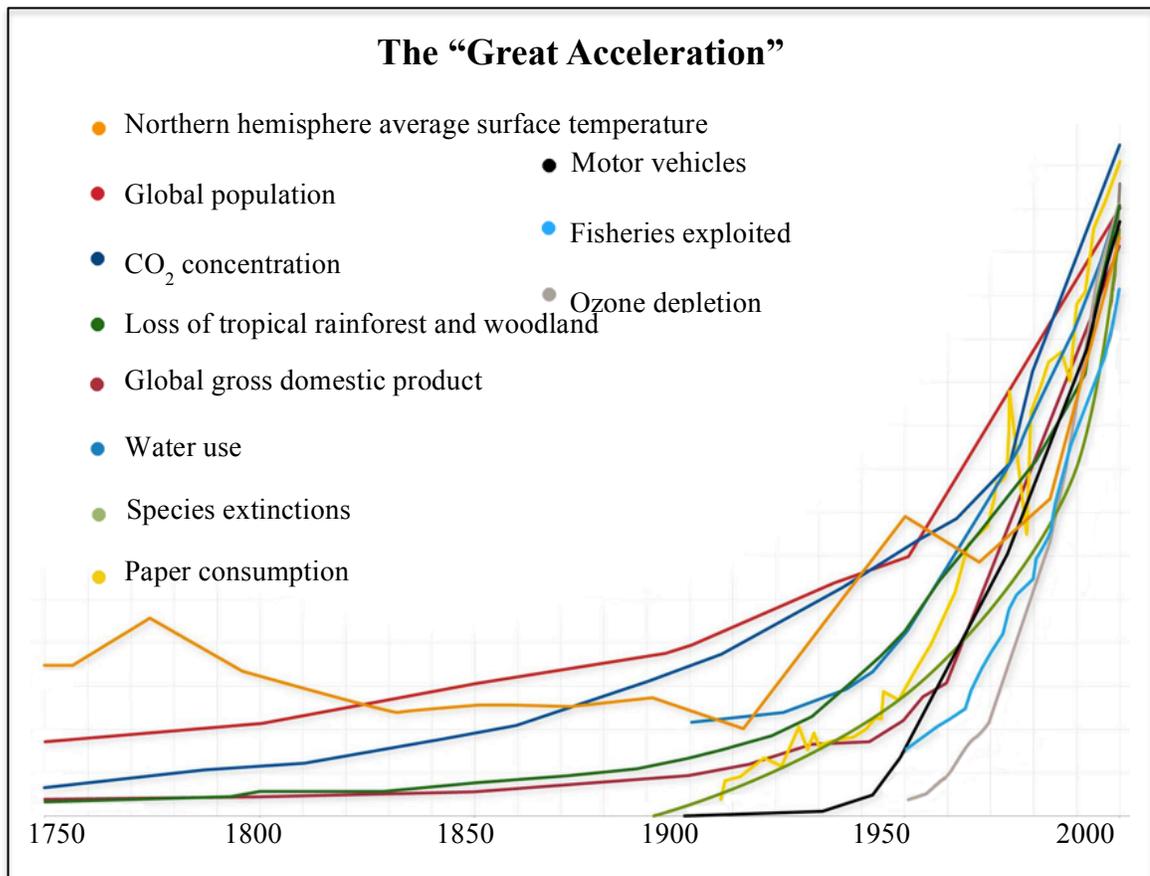


Fig. 6.2. While humans have always placed stress on the biosphere, these stresses have greatly accelerated since approximately 1950. Source: Garry Peterson, “Visualizing the Great Acceleration,” <http://rs.resalliance.org/2008/12/04/visualizing-the-great-acceleration-part-ii/>. Data from William L. Steffen, Angelina Sanderson, Peter Tyson, Jill Jäger, Pamela A. Matson, Berrien Moore III, Frank Oldfield, *Global Change and the Earth System: A Planet Under Pressure* (Berlin: Springer, 2005).

These basic facts are most often euphemized in the United States, by those who acknowledge them, as an imperative to move toward “sustainability.” The term “sustainability,” like “crisis,” has been stretched thin by deliberate misuse, but we should recall from whence it came. Although the term means different things to different people, “sustainability” (or “sustainable development”) is often defined as it first was, in 1987, by a World Commission on Environment and Development as “a process of change

in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations.”⁹ The phrase “sustainable development” emerged in the 1990s as a useful environmental paradigm that incorporated environmental protection and a limits-to-growth attention to resources and intergenerational equity with a corporate-friendly acceptance of prolonged economic growth.¹⁰

The very concept of “sustainability” is an implicit response to its opposite, unsustainability—a fair descriptor of the current state of human actions and lifestyles, especially in the global North. One useful measure of judging sustainability is the ecological footprint, a tool that allows us to “estimate the resource consumption and waste assimilation requirements of a defined human population or economy in terms of a corresponding productive land area,” based on the biosphere’s ability to regenerate.¹¹ As of 2007, human beings used up the resources of one and a half Earths; but if everyone on the planet lived as the average American does—as most seek to do—we would exhaust the resources of *five* Earths each year.¹² This figure does not even take into account or

⁹ World Commission on Environment and Development, *Our Common Future*, (Oxford: Oxford University Press, 1987), 47. This is often known as the Brundtland Commission after its Chairman, Gro Harlem Brundtland, then the Prime Minister of Norway. See Daniel J. Philippon, “Sustainability and the Humanities: An Extensive Pleasure,” *American Literary History* 24, no. 1 (2012): 163-179.

¹⁰ Indeed, some claim that that the term, in its current meaning, was first used in *Limits to Growth*. See Ulrich Grober, “Deep Roots: A Conceptual History of ‘Sustainable Development,’” unpublished Master’s thesis, Wissenschaftszentrum Berlin für Sozialforschung, 2007, 8-9.

¹¹ Mathis Wackernagel and William Rees, “Our Ecological Footprint: Reducing Human Impact on the Earth” (Gabriola Island, Canada: New Society Publishers, 1996), 9.

¹² Global Footprint Network, “Data Sources,”

http://www.footprintnetwork.org/en/index.php/GFN/page/data_sources. Accessed March 20, 2012. An ecological footprint is a calculation that estimates the area of Earth’s productive land and water required to

reliance on resource that are finite, such as topsoil, freshwater, phosphorus, key minerals, and of course fossil fuels.

These constraints are only a small part of this equation, however. Many Americans may understand the phrase “environmental crisis” as referring specifically to climate change, which has attracted the lion’s share of recent environmental publicity in the last decade, but most scientists would join Buell in noting that

Even a short list of current environmental crises is of necessity quite long. At the least it must include an energy (and also other resources) crisis; a multifactorial waste crisis... a wetlands crisis; a food production crisis; a crop diversity crisis; a forest crisis; a soils crisis; an ocean crisis; a freshwater crisis; a biodiversity crisis; an acid rain crisis; an ozone hole crisis; a global warming crisis; an environmental toxification crisis; a global disease crisis; a population crisis; and a growth or development crisis.¹³

Without splitting hairs over whether the term “crisis” applies equally to each of these areas, we might agree that the amount of resources our way of life demands is simply not sustainable. Most readers will be aware of at least one or two of these crises. They will also be aware that despite the “green” rhetoric that is now standard in most advertising, very little has been done to address them—in fact, almost every one of them has become more grave since they were first brought to public attention.¹⁴ Somehow, as Sarah S.

supply the resources that an individual or group demands, as well as to absorb the wastes that the individual or group produces.

¹³ Frederick Buell, *From Apocalypse to Way of Life: Environmental Crisis in the American Century* (New York: Routledge, 2004), 74. For more information on each of these issues, see Buell, 69-142.

¹⁴ The possible exception here is the hole in the ozone hole over the Earth’s polar regions, which was largely caused by the dissociation of chemicals such as CFCs. The Montreal Protocol on Substances that

Amsler observed in 2010, “the spectre of crisis now casts an urgent but oddly bearable shadow on everyday life. It appears through documentaries on the science of climate change and video footage of melting ice: we manage it with recycling bins and reusable bags.”¹⁵

Amsler is referring here to Al Gore’s 2006 documentary, *An Inconvenient Truth*, which represented a high-water mark of climate change awareness in the mid-2000s but offered only minor, mostly individualistic suggestions for action. As Michael Pollan noted in a review, “the really dark moment” of the film was not its visualization of the Atlantic Ocean washing over Manhattan, which most audience members were accustomed to seeing in blockbuster disaster movies such as *The Day After Tomorrow*, but it “came during the closing credits, when we are asked to... change our light bulbs. That’s when it got really depressing. The immense disproportion between the magnitude of the problem Gore had described and the puniness of what he was asking us to do about it was enough to sink your heart.”¹⁶ The “puniness” of Gore’s suggestions, mirrored in the baby-step solutions that mainstream environmental organizations and liberal politicians proposed throughout the 2000s, reflected his acceptance of mainstream economic growthmanship. But it also reflected a pragmatic awareness of America’s lukewarm support for environmental initiatives. According to a 2009 poll on Americans’

Deplete the Ozone Layer, signed internationally in 1989, successfully restricted the production of these chemicals, and remains one of the great victories for environmentalism internationally. However, it will be decades before the hole in the stratosphere is closed, and scientists are just beginning to understand the interaction between ozone depletion and climate change. See Son SeokWoo, Neil F. Tandon, Lorenzo M. Polvani, and Darryn W. Waugh, “Ozone hole and Southern Hemisphere climate change,” *Geophysical Research Letters* 36, no. 15 (2009).

¹⁵ Sarah S. Amsler, “Bringing Hope ‘To Crisis’: Crisis Thinking, Ethical Action and Social Change,” in Stefan Skrimshire, ed., *Future Ethics: Climate Change and Apocalyptic Imagination* (London: Continuum, 2010), 129.

¹⁶ Michael Pollan, “Why Bother?” *New York Times*, April 20, 2008, MM19.

policy priorities, “Global Warming” was the *lowest* priority of the twenty options presented, behind even “Trade Policy” and “Lobbyists.” The general category “Environment” did only slightly better, at number sixteen.¹⁷

In this context—with a public that still implicitly expects an indefinite continuation of “business as usual” enabled by a miraculous technological fix, with an unprecedented, almost existential environmental crisis on the horizon—studying the rare individuals and groups that have actually responded to environmental crisis in a proportionate way can provide one vision of what “taking crisis seriously” might look like.¹⁸ Peakists certainly overestimated the timing and immediate consequences of petroleum depletion and underestimated the potential of alternative energy sources, but their sense of an imminent ecological crisis was certainly justified. They adopted and acted on an ecological identity that critiques and opposes the normative but increasingly problematic dominant social paradigm of unlimited abundance and technological solutionism described in chapter 1. Furthermore, they were engaged in the kinds of actions that we might hope all Americans would undertake to cut our carbon emissions, necessary but not sufficient actions such as using public transit, making their homes more energy-efficient, driving and flying less, bicycling more, and altering their consumption patterns. They argued, as one believer put it, that environmental issues such as peak oil and climate change are, at their core, “moral, ethical and spiritual” problems,” as opposed to “technical, scientific, engineering, economic” or “financial” problems, and advised that

¹⁷ Pew Research Center for the People and the Press, “Economy, Jobs Top Public's Policy Agenda,” January 20, 2011, <http://www.people-press.org/2011/01/20/economy-dominates-publics-agenda-dims-hopes-for-the-future>. Accessed August 27, 2012.

¹⁸ Buell, 39.

“if we do not approach it from this direction our chances for surviving, much less creating a more just kind and humane society are very poor indeed.”¹⁹ This might have seemed a radical claim only a decade ago, but that time has passed.

While the kinds of actions that peakists took had a negligible effect on actual carbon emissions, they still might have a tangible effect on the environmental crisis of the will that enables the continuing carbon catastrophe—the sense that Americans are not willing or even able to change their lifestyles and make sacrifices on behalf of the common good. As sociologist Kari Marie Norgaard observed from her ethnographic research into climate change quiescence in the United States and Norway, “individuals see that smart people around them continue to carry on highly consumptive behaviors, even in the face of knowledge about their consequences, and assume that others are too self-interested to be motivated for change.”²⁰ In this light, individualistic responses are important not for their potential to reduce actual emissions (let alone ensure survival in the post-apocalyptic future), but as an environmental communications strategy. They signal to friends, family, co-workers and neighbors that despite the imperative to consume, Americans do possess a concern for the commonweal and a willingness to change.

Studying peakists can also teach us a great deal about the causes of inaction, both personal and political. The social dynamic of marginalization that my respondents described is not limited to apocalyptic predictions about oil depletion. It extends to a number of potentially uncomfortable or unpleasant topics in the twenty-first United

¹⁹ Respondent 9593771.

²⁰ Kari Marie Norgaard, *Living in Denial: Climate Change, Emotions, and Everyday Life* (Cambridge: MIT Press, 2011), 193.

States, such as the roots of the recent recession, growing economic inequality, structural racism, mass incarceration, drone strikes, indefinite detention centers and climate change, to name just a few. Millions of conversations that never occur because one party is concerned about being perceived as a “Debby Downer” constitute the social production of an increasingly problematic normality. They are, in sum, exactly the kind of missed collective conversation that most observers believe the United States desperately needs. Their absence exerts a silent influence on the nation’s ability to respond to the multitudinous challenges of our time.

To illustrate the impact of ignoring societal problems, a peakist from Washington caricatured the “knee-jerk reaction” she often receives when discussing resource depletion: there’s “no evidence, you’re a pessimist anyway, *yeah and my house is going to be under water next year as well.*”²¹ As Hurricane Katrina, superstorm Sandy and so many other recent weather events have shown, there is a high price to be paid for avoiding difficult topics, and it compounds over time. It would be comforting to maintain that peak oil and climate change are unrelated threats, but they are in fact two sides of the same oleaginous coin. Both are global, carbon-based problems that threaten disastrous consequences if we do not transition away from fossil fuels. If the “age of oil” ends soon, as peakists believed, it would indeed constitute a calamitous event; should we continue burning fossil fuels at the present rate for decades, the consequences of climate change will be far worse than current estimates predict.

Denial of environmental science has rightly received a great deal of attention in the United States in the last decade, primarily focusing on the conservative crusade to

²¹ Respondent 9575985. Emphasis added.

obfuscate and politicize the science of anthropogenic climate change.²² But there are other forms of denial as well. Social psychologists Susan Opatow and Leah Weiss have described the assignation of responsibility to “higher authorities or legitimate decision makers” as itself a form of denial of self-involvement.²³ Of growing importance as the consequences of our reliance on fossil fuels become more widely accepted, sociologist Stanley Cohen has argued, is “implicatory denial.” “Implicatory denial” admits the basic facts but minimizes “the psychological, political or moral implications that conventionally follow” from them, such as the ethical imperative to respond.²⁴

Sociologists such as Norgaard have demonstrated that these various forms of denial are socially and culturally constructed. Different countries, cultures and subcultures have differing norms of action, inaction, and emotion, meaning that the kinds of information we pay attention to, ignore, and allow to influence us emotionally in our everyday lives. First, we rely on the “cognitive traditions” of our culture or subculture, which tell us “whether to pay attention to a given idea or event in a given moment or not.”²⁵ Then we rely on “emotion norms,” which “prescribe the socially appropriate range, intensity, duration, and targets of feelings in different situations,” and thereby “set the standard for what an individual ‘ought’ to feel in a given context.”²⁶ She notes that in contrast to purely psychological theories of denial, “the notion of socially organized

²² See, for example, Naomi Oreskes and Erik Conway, *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming* (New York: Bloomsbury, 2010); and James Hoggan, *Climate Cover-up: The Crusade to Deny Global Warming* (Greystone Books: Vancouver, 2009).

²³ Susan Opatow and Leah Weiss, “New Ways of Thinking About Environmentalism: Denial and the Process of Moral Exclusion in Environmental Conflict,” *Journal of Social Issues* 56, no. 3 (2000), 477.

²⁴ Stanley Cohen, *States of Denial: Knowing about Atrocities and Suffering* (Polity, 2001), 8.

²⁵ Norgaard 2011, 5.

²⁶ *Ibid*, 92.

denial emphasizes that ignoring occurs in response to social circumstances and is carried out through a process of social interaction.”²⁷ In my surveys, peakists described in great detail the kinds of subtle and not-so-subtle social pressure exerted by their friends, family, and co-workers, and the cost of going against the grain.²⁸ Studying the counter-tradition of Malthusian environmentalism illuminates the contours of the social organization of denial.

Peak Individualism?

If peakists are to be respected for taking environmental crisis seriously, this dissertation has been critical of the way that many of them have responded. Here we find the convergence of the two primary issues of *Peak Politics*: concerns about environmental crisis and the influence of the libertarian shift. My respondents, like peak oil authors, were well aware that individualistic, survivalist responses to the problems of peak oil and climate change would not be sufficient, but many saw few alternatives. This has less to do with a personal failure of imagination and more to do with their historical moment. In a recent book on “catastrophism,” Eddie Yuen argued that “waking up” to the contemporary environmental situation “in the context of alienation is profoundly disempowering,” and appropriately distinguished this experience from political consciousness-raising during the 1960s, a decade of expanding democratic possibilities. “To understand” apathy about environmental challenges, Yuen asserted that we “must

²⁷ *Ibid.*, 9.

²⁸ As Ehrenreich notes, the “culture of cheerfulness” is powerful exactly because it is in no way an official mandate but is seemingly reproduced and demanded by each individual citizen. One could very well describe the pressures to conform to the expectations of the “dominant social paradigm” through the lens of Michel Foucault’s concept of “governmentality.”

look at the conditions of atomization, depoliticization, powerlessness, and alienation that afflict the U.S. body politic generally.”²⁹

As I argued in chapter 3, libertarian activists and their wealthy backers slotted their then-radical political philosophy into the long tradition of American individualism, and effected a monumental transformation of American political culture. Capitalizing on the sense of inevitable growth and progress borne of the “age of oil,” “government” became primarily a matter of optimizing markets for maximum efficiency. “The market” was not merely an answer to potentially divisive questions about distribution of wealth and environmental deterioration, but, as Daniel T. Rodgers observed, “stood for a way of thinking about society with a myriad of self-generated actions for its engine and optimization as its natural and spontaneous outcome.”³⁰ The Internet, developed in the heyday of market fundamentalism, reflected the dominant ideology of its era. Although we should hope that digital spaces will eventually deliver on their substantial democratic potential, we should recognize that they can also serve to atomize and depoliticize their inhabitants. During the recession of 2007-2008, when the failure of market fundamentalism became too big to ignore, liberals finally began to push back against the spread of libertarian ideals. But by this point they were bucking the tide of three decades of conservative warnings about the evils of “big government,” praise for market efficiency, and the targeted evisceration of the public sphere.

²⁹ Eddie Yuen, “The Politics of Failure Have Failed: The Environmental Movement and Catastrophism,” in James Davis, Sasha, Lilley, David McNally and Eddie Yuen, eds., *Catastrophism: The Apocalyptic Politics of Collapse and Rebirth* (Oakland: PM Press, 2012), 21.

³⁰ Rodgers, 41.

With environmental issues ranking as a low priority, and in the absence of effective popular challenges to the status quo, the only politically acceptable means to respond to climate change and resource depletion is the favorite of neoliberals and libertarians alike: the market. The mainstream response to concerns about oil depletion, which became widespread in the United States in 2008, was, as Peter North summarized it, “that market economies are creative enough to solve problems through solutions of which we cannot as yet even dream, and that technology will overcome contemporary carbon crises.”³¹ This response was even echoed by dedicated scholars of petroleum.³² For American politicians concerned with climate change, the only imaginable solution is a cap-and-trade system, despite common knowledge about the abuse of emissions markets overseas and similar environmental markets in recent U.S. history.³³ This is a libertarian solution that is enthusiastically advocated by liberals, Democrats, Republicans, and conservatives alike. Although climate change has been described as “the greatest market failure the world has seen,” since carbon emissions have remained “external” to the emitter’s cost, the only solution is somehow to create even more markets.³⁴ But, we should ask ourselves, is this faith in the free market and concomitant opposition to regulation not a reflection of conservative intellectual influence? In this light, we might

³¹ North 2010, 586.

³² See, for example, Daniel Yergin, “There Will Be Oil,” *The Wall Street Journal*, September 17, 2011.

³³ On the failure of emissions trading in the implementation of the 1977 Clean Air Act Amendments, see David M. Driesen, “Neoliberal Instrument Choice,” in David M. Driesen, ed., *Economic Thought and US Climate Change Policy* (Cambridge: MIT Press, 2010). On the failure of contemporary European emissions markets, see Nathaniel Gronewold, “Europe’s Carbon Emissions Trading -- Growing Pains or Wholesale Theft?” *New York Times*, January 31, 2011; and Elisabeth Rosenthal and Andrew W. Lehren, “Profits on Carbon Credits Drive Output of a Harmful Gas,” *New York Times*, August 8, 2012.

³⁴ Nicholas Stern, *Review on the Economics of Climate Change* (London: HM Treasury, 2006). On the influence of libertarian-neoliberal thought on global environmental policy, see Driesen 2010; and Jane Andrew, Mary A. Kaidonis, and Brian Andrew, “Carbon Tax: Challenging Neoliberal Solutions to Climate Change,” *Critical Perspectives on Accounting* 21, no. 7 (2010): 611–618.

better understand the Nebraska peakist's claim that "the problem of peak oil, like overpopulation and nuclear proliferation, is about collective action and long term planning. The problem is not a shortage of hydrocarbons"—nor, one might add, an excess of hydrocarbons—"but a shortage of wisdom."³⁵

Wisdom, however, is a resource that is renewable. One meaning of "wisdom" is the "soundness of judgment in the choice of means and ends."³⁶ This dissertation is descriptive and analytical, and it is beyond its scope to offer prescriptions. However, I can conclude with the simple observation that the adoption of libertarian solutions is not a sound means to maintain the status quo, let alone achieve a collective future that is more equitable, more just, and more sustainable. Wisdom, then, would require that we recognize the gradual but indisputable trend towards libertarian and neoliberal ideals in political culture, not only in the United States but around the world. Wisdom would also require understanding that the solutions to transnational, existential problems such as climate change and eventual resource depletion must be political *and* personal. That our cultural fascination with apocalypse and recent developments in politics, law, digital technologies other areas have led to a sense of widespread alienation and depoliticization makes the actions of environmentally-aware Americans, such as peak oil believers, even more critical.

³⁵ Respondent 9686274.

³⁶ Oxford English Dictionary.

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Appendix Survey Data

	First Survey	Second Survey
Date conducted	January 2011	July 2011

Number of respondents	1128	628
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If you had to quantify your level of certainty in the fundamental theory of peak oil -- that global oil production will peak in the next decade (if it hasn't already), and that this event will have grave and potentially apocalyptic effects on the United States and around the world -- on a scale of 1 to 10, what would it be? 1 is disbelief, 10 is complete certainty.

• 1	0.5	0.7
• 2	0.3	0.7
• 3	0.8	0
• 4	0.3	0.4
• 5	3.4	0
• 6	3.9	1.5
• 7	10.3	7.8
• 8	18.3	19.0
• 9	24.5	26.9
• 10	37.8	42.9

Which country/region are you in?

• United States	77.3	70.2
• Canada	8.0	9.7
• Central America	0.3	0.5
• South America	0.3	0
• Western Europe	7.9	10.7
• Eastern Europe	0.9	1.6
• Africa	0.3	0
• Asia	0.8	1.6
• Other	4.3	5.8

What is your age?

• 0-20	0.1	-
• 21-25	1.8	-
• 26-30	5.4	-
• 31-35	8.7	-
• 36-40	9.0	-

• 41-45	13.6	-
• 46-50	14.1	-
• 51-55	17.0	-
• 56-60	14.1	-
• 61-65	9.4	-
• 66-70	3.5	-
• 71-75	2.3	-
• 76-80	0.4	-
• 81+	0.4	-

What is your gender?

• Male	83.9	73.4
• Female	15.5	22.8
• Rather not answer	0.7	2.6

If you are in the United States, do you identify as...

• White	-	88.8
• Black / African American	-	1.1
• Asian	-	0
• Hispanic / Latino	-	1.9
• American Indian	-	0.7
• Pacific Islander / Hawaiian	-	0.7
• Other	-	3.7
• Rather not answer	-	4.1

If you are in the United States, what would you identify as your race or ethnicity?

• Caucasian	90.7	-
• African American	0.5	-
• Latino	1.2	-
• Asian American	0.6	-
• Native American	0.8	-
• Other	5.8	-

What is your religious preference?

• Protestant	-	5.5
• Christian (non-specific)	-	9.0
• Catholic	-	5.5
• Jewish	-	2.9
• Mormon	-	0.5
• Other specific	-	11.6
• None	-	50.9
• Undesignated	-	14.0

What is the highest level of education you have completed?

• Did not graduate High School	0.4	1.1
• High School	6.0	7.1
• College	44.2	46.1
• Trade or technical school	6.2	7.1
• Master's Degree	26.7	24.7
• PhD	9.4	9.4
• Other professional degrees	7.1	9.3

How would you describe your political views?

• Very conservative	-	4.3
• Conservative	-	7.4
• Moderate	-	29.9
• Liberal	-	28.7
• Very liberal	-	27.4

How do you identify yourself politically?

• Anarchist	6.5	9.0
• Socialist	10.2	10.5
• Progressive	20.1	20.1
• Liberal	15.4	13.9
• Independent	21.9	22.3
• Moderate	10.2	8.4
• Conservative	6.4	4.2
• Libertarian	9.4	11.6

At the height of your interest in the subject, how often did you visit peak oil websites (approximately)?

• Many times a day	24.6	39.3
• Once a day	42.3	42.3
• Once a week	18.9	11.6
• Once a month	6.4	2.2
• Once a year	3.1	0.7
• Never	4.8	3.0

What initially sparked your interest in this topic?

	16.3	-
• 1970s Oil Crisis	5.4	-
• The Gulf War	5.3	-
• 9/11	5.2	-
• Wars in Iraq and Afghanistan	9.3	-
• Hurricane Katrina	2.3	-
• Gas Prices	11.2	-
• BP Oil Spill	1.4	-
• A book	29.0	-
• Friend/family/coworker	8.4	-

Have you found it difficult to speak to others about peak oil?

• Yes	-	29.3
• Sometimes	-	36.7
• Rarely	-	11.2
• Not at all	-	21.4
• Never tried	-	0.29

Have you found it difficult to speak to others about peak oil or “come out” as a peak oiler?

• Yes	29.3	-
• Sometimes	36.7	-
• Rarely	11.2	-
• Not at all	21.4	-
• Never tried	0.3	-

Have you attended any in-person meetings with others interested in the same topic? If so, where?

• MeetUp Groups	10.6	18.7
• Conventions (regional or national)	9.9	11.2
• Transition Initiative	12.3	22.1
• Lectures	27.9	31.2
• No	61.4	53.0

What do you think the benefits of visiting sites like Peak Oil News & Message Boards (www.peakoil.com) have been for you? (Select all that apply.)

• Centralized location for information	72.7	-
• Place to have questions answered	45.1	-
• Good to be of service to newcomers	23.1	-
• Comfort of knowing that other people have The same thoughts	54.9	-
• Grow more of my own food	28.9	-
• Invest differently	26.0	-
• No benefits	0.9	-
• I don't visit peak oil websites	7.0	-

How has your knowledge of peak oil affected your life? Please select all that apply.

• Changed occupation	12.8	-
• Changed partner/spouse	2.5	-
• Living in a Transition Town	3.3	-
• Building a Transition Town	5.8	-
• Living in other form of sustainable community	7.2	-
• Building other form of sustainable community	15.6	-

- Drive less 53.2 -
- Purchased car with better MPG 32.3 -
- Not affected my life 11.3 -

As a result of your knowledge of peak oil, have you done any of the following?

- Reduced energy usage at your current home - 81.6
- Moved to a smaller or more energy-efficient home - 24.0
- Prepared food or other supplies for yourself and your family - 72.3
- Changed your occupation - 19.9
- Moved to a Transition Town - 2.6
- Moved to some other form of sustainable community - 12.4
- Engaged in political activity related to peak oil - 27.3

Please agree or disagree with the following statement: "Fictional portrayals of post-apocalyptic scenarios have influenced the vision that some 'peak oilers' have of what the post-peak period will be like."

- Strongly disagree 2.4 -
- Disagree 14.7 -
- Agree 68.5 -
- Strongly agree 20.5 -

Please agree or disagree with the following statement: "Fictional portrayals of post-apocalyptic scenarios have influenced my image of what the post-peak period will be (and will not) be like."

- Strongly disagree 11.1 -
- Disagree 27.1 -
- Undecided 25.5 -
- Agree 33.1 -
- Strongly agree 3.1 -

Would you agree or disagree with the following statement: "We don't give everyone an equal chance in this country."

- Agree - 82.2
- Disagree - 15.2

In recent years, has too much been made of the problems facing black people?

- Too much - 10.1
- Too little - 34.5
- Just right - 12.7
- Don't know - 40.7

Do you think it should be legal or illegal for gay and lesbian couples to get married?
How strongly do you feel about this question?

- Legal (strongly) - 56.1
- Legal (somewhat) - 24.1
- Illegal (somewhat) - 3.3
- Illegal (strongly) - 3.3
- No opinion - 11.4

Which of the following websites have you checked regularly?

- Life After the Oil Crash - 31.8
- Peak Oil News - 30.7
- The Oil Drum - 54.6
- Energy Bulletin - 39.4
- Peak Oil Blues - 15.5
- Clusterfuck Nation - 39.5

Which of the following books have you read?

- Richard Heinberg's *The Party's Over* - 78.3
- James Howard Kunstler's *The Long Emergency* - 87.2
- Matthew Simmons' *Twilight in the Desert* - 77.1
- James Howard Kunstler's *World Made By Hand* - 78.1
- Rob Hopkins' *Transition Handbook* - 72.7
- Dmitry Orlov's *Reinventing Collapse* - 77.6

Which of the following do you see as most likely for the country you currently reside in?
Please rate each on a scale of 0 to 10.

- Business as usual with no major consequences - 1.9
- Better technology and new energy sources allow for little change - 2.7
- Resource wars for remaining energy - 7.8
- A gradual shift into a lower-energy world ("powerdown") - 5.7
- A smaller population - 7.1
- A significant drop in quality of life - 7.9
- Apocalyptic scenario (i.e. violence, epidemics, die-off) - 6.1

Which of the following do you see as most likely in the less developed parts of the world? Please rank each on a scale of 1 to 10.

- Business as usual with no major consequences - 2.8
- Better technology and new energy sources allow for little change - 2.4
- Resource wars for remaining energy - 7.3
- A gradual shift into a lower-energy world ("powerdown") - 4.9
- A smaller population - 7.3
- A significant drop in quality of life - 6.3

- Apocalyptic scenario (i.e. violence, epidemics, die-off) - 6.8

Have you been *more* or *less* engaged in the following activities since learning about peak oil? Please put on a scale from 1 to 5, with 1 for much less engaged, 3 for no change, and 5 for much less engaged.

- Following political or national news - 3.8
- Voting - 2.9
- Attending rallies, marches or protests - 2.8
- Involved in community activities - 3.5
- Planning own future - 4.5

Do most members of Congress deserve re-election?

- Yes - 2.6
- No - 85.7
- No opinion - 11.2