# Moment of Transition:
# Structural Crisis and the Case for a Democratic Socialist Party

**Michael Joseph Roberto, Gregory Meyerson, Jamey Essex, and Jeff Noonan**

A little more than two years ago we were told that the so-called Great Recession, which began in December 2007, had finally ended and a recovery though "jobless" was underway. What a cruel hoax to millions of Americans expected to endure massive unemployment and steadily declining living standards while watching financial institutions and corporations being rescued by government largesse – all at their expense. As we go to publication, the dry statistics tell a woeful tale of increasing instability, uncertainty and deprivation. In July, the government reported a net increase of 117,000 jobs, which lowered the June unemployment rate of 9.2 by a mere one-tenth of a percentage point. Actually, private companies had added a total of 154,000 new jobs, but the gain was offset by the continued bleeding of state and local governments, which shed 39,000 jobs. At the moment some 13.9 million people are out of work, 6.2 million for six months or longer. Add to that 8.4 million who work part time and another 1.1 million who have stopped looking and what you get is surely a troubling statistic: 58.1 percent of the population is employed, the lowest level in nearly three decades.[1] Is it even worth pondering what it would take under current circumstances to create 250,000 to 300,000 new jobs every month for at least two years in order for any real recovery to occur? Earlier this year, we were reassured by economists and political leaders that signs of improvement were unmistakable and that we would be back to pre-recession conditions by summer. GDP had grown at an annual rate of 3.2 percent in the fourth quarter of 2010, mainly on the basis of increased consumer spending (4.4 percent), swelled investment portfolios, a shrinking trade deficit, and greater spending by businesses on equipment and software – all serving to pump up Treasury secretary Timothy Geithner's "growing confidence" that the economy was coming back to life.[2]

---

[1] Motoko Rich, "U.S. Adds Jobs And Investors Sigh in Relief," *The New York Times*, August 6, 2011.
[2] Catherine Rampell, "U.S. Economic Growth Bounces Back to Rate Seen Before Recession," *The New York Times*, January 29, 2011.

What would Mr. Geithner now say if compelled to explain his earlier confidence? During the first six months of this year, the economy grew at an annual rate of less than 1 percent, while the government admitted that the recession was deeper and the recovery weaker than first indicated. "With so little growth," reported *The New York Times* on July 30, "the economy can hardly withstand further shocks from here or abroad."[3] But the main issue is not the shocks now occurring or those bound to occur, or even the mantra of the moment, the fear of a double-dip recession. It is mainly that all this volatility is happening within the larger framework of a deepening general decline with no recovery in sight. Consider the impact of the debt ceiling agreement reached by Congress and the Obama administration at the eleventh hour on August 2. Obsessed with deficit reduction rather than economic growth, the agreement signals more austerity without any revenue increases, which will only serve to prolong high unemployment, fiscal crisis and the continued hemorrhaging of state and municipal budgets. The immediate consequence, S&P's downgrading of the U.S. credit rating coupled with worsening fiscal crisis in Europe, put U.S stocks into a nosedive a few days later. From massive sell offs on August 4 and 5, the markets then sharply rebounded the following Monday only to nosedive again the next day. Meanwhile, the Federal Reserve's announcement that it would keep short-term interest rates to near zero until 2013 only confirmed what most of us already know, that we will see little growth, if any, in the U.S. economy for at least the next two years. "It is now impossible to deny the obvious," wrote Paul Krugman in his *NYT* column on August 5, "which is that we are not now and have never been on the road to recovery."[4]

Of course, these recent events are only the latest chapter in the history of a crisis long in the making. The economic trend since 2000 has been decidedly downward. Consider that recovery from the previous recession of 2000-2001, which featured stagnant wages, an uninterrupted drop in median household income, total job growth less than 2 percent, and an unemployment rate that remained low only because several million

[3] Catherine Rampell, "New Data Shows Sharp Slowdown in Growth Rate," *The New York Times*, July 30, 2011.
[4] Paul Krugman, "The Wrong Worries," *The New York Times*, August 5, 2011.

people had given up looking for work, *was the weakest in the whole postwar period*.[5] By April of 2007 businesses of all types, from banking and retail to construction and manufacturing, were paring back jobs as the drag of slower economic growth created only 88,000 new jobs in that month, then the weakest showing since spring of 2005.[6] In fact, leading economic indicators in late 2006 pointed to the coming of a sharp downturn which, as we know, did occur in December 2007, the onset of the Great Recession. Based on this overall economic performance of the last decade, we contend that we are very much in the grip of the most devastating phase of a 40-year crisis of U.S. capitalism since the bursting of the home-mortgage bubble and the financial debacle in the fall of 2008. All this has brought us to what Krugman now calls "the Lesser Depression, the prolonged era of high unemployment that began with the Great Recession of 2007-2009 and continues to this day, more than two years after the recession supposedly ended."[7]

Here, we contend that the new depression, a paradoxical totality more difficult to grasp than its 1930s predecessor, the Great Depression, is the terminal stage of the general crisis of U.S capitalism, meaning that it is irreversible and structural. Accordingly, all signs of recovery in the present must be measured in the context of a crisis deeply rooted in a declining productive economy that only remained profitable due to the twin processes of financialization and militarization. Consequently, we will argue that the crisis fully understood cannot be resolved politically within the framework of bourgeois constitutional democracy, implying that it will end in the following ways: as Marx and Engels theorized in 1848 "either in a revolutionary reconstitution of society at large, or in the common end of the contending classes"; what Rosa Luxemburg considered in 1915 as a choice between peace and socialism or world war as "a reversion to barbarism"; what ecosocialists John Bellamy Foster and Robert McChesney now view as the ecological choice between "Socialism or Exterminism."[8] All told, this crisis marks

[5] Kurt Richebacher, "Reasons for an impending US economic recession," The Daily Reckoning, August 9, 2006 <http://www.dailyreckoning.co.uk/economic-forecasts/reasons-for-an-impending-us-economic-recession.aspx>.
[6] Jeremy W. Peters, "Job Growth Was Slower Last Month," *The New York Times*, May 5, 2007.
[7] Paul Krugman, "The Lesser Depression," *The New York Times*, July 22, 2011. A little more than a year ago (June 2010), Krugman wrote that the U.S. had already entered into a third depression.
[8] Karl Marx and Frederick Engels, *Manifesto of the Communist Par*ty, in Karl Marx-Frederick Engels, *Collected Works*, vol. 6 (Moscow, Progress Publishers, 1976), p. 482; Peter Hudis and Kevin B. Anderson, *The Rosa Luxemburg Reader* (New York, Monthly Review Press, 2004), p. 321; Robert W. McChesney

the arrival of a world historical moment in Late Capitalism that makes socialist transition in the most advanced part of the global capitalist system plausible, but also one in which deepening contradictions are leading to a systemic dénouement. Simply put, it is the historic moment of transition to socialism or reversion to fascism. To avoid the latter, practical steps must be taken toward building socialism, recognizing as did Marx that we can only begin building on and within the ruins of the existing system.

In the spirit of open dialogue, we want to push forward discussion about the immediate need for launching a mass democratic-socialist party. It must be understood that this party is not to be a social democratic party or a labor party such as was built in Europe after 1870, or recently. These parties were committed to the continuation and slow reform of capitalism whereas the party we envision is committed to ending capitalism in the immediate future. It might be argued that this party will call for many of the reforms that others sought, though often did not get. However, it is our contention that we are now in a period when capitalism, especially U.S. capitalism, can no longer grant reforms in any significant sense, due to the particulars of its decline. So, then, it follows that a party that fights for democratic-socialist values in a transitional stage will in effect be a revolutionary party.

While there is much to consider – and we must make it clear that this treatment can be considered no more than preliminary and restricted – we have chosen to make the following case on the basis of five arguments:

**(1) Because we are in a structural crisis of U.S. capitalism, there is no resolution within the parameters of the current system; in short, a crisis of capitalist rule itself is approaching**. We briefly compare the structural crisis of German capitalism in the 1920s and early 1930s with the current U.S. crisis. The particular character of our crisis, marked by the irreversible and systemic collapse of economic, political, and social life against the backdrop of accelerating ecological degradation and energy crisis, has established the objective conditions for socialist transition.

**(2) This structural crisis is at bottom a crisis of political economy so that the energy and ecological crises we analyze are inseparable from the crisis of capitalism.**

---

and John Bellamy Foster, "Capitalism, the Absurd System: A View from the United States," *Monthly Review*, vol. 62, no. 2 (June 2010), pp. 9-10.

Put another way, the energy and ecology crises are only crises in the first place due to the untranscendable character of the contradictions faced by U.S. capitalism in its global context. This second section of our argument is thus in one sense a continuation and completion of the first section. We will argue first that, due to the structural character of the crisis, there can be no U.S. led "Green New Deal" to trigger a global green capitalism. That said, in this moment of transition, *a scientifically based energy policy must be integral to the formation of a democratic-socialist party*. As part of the ecological revolution, therefore, we need a serious discussion starting now of the technological mix making up a rational energy transition. This section hopes to begin this discussion by assessing the merits of nuclear power and so-called renewable energy in order to determine what sort of socialism we can hope for. The authors prefer a high energy economy, yet ultimately one recognizing the limits to growth, and thus a steady state economy. Acknowledging, and utterly sensitive to, the harm to nature and society caused by damage to the Fukushima nuclear plants as a result of the catastrophic tsunami in Japan, yet equally committed to critiquing the widespread rhetoric of FUD (fear, uncertainty and doubt) that overwhelmingly characterizes today's "green" movements, we propose that socialist transition worthy of the name is not possible without nuclear power, assuming that its delivery comes in the most advanced technological forms and under the democratic control of the working class, whose imperative is ultimately about need instead of profit.

**(3) The democratic-socialist party we envisage must be trans-local in character.** Whatever the strength of current local efforts to decommodify the conditions and necessities of social life – to reverse the process of commodification (the extension of market relations to the production, circulation and reproduction of needs and wants) – we argue that localism cannot succeed unless it transcends itself and confronts the totality of the corporate food system and the state that supports it. Moreover, localism in and of itself is not feasible as an anti-capitalist strategy, even if the proponents of "powering down" are correct (if our argument for a nuclear led energy transition is correct, all powerdown arguments will lose their sense) in asserting that fuel and energy shortage would make transportation of food across long distances totally unfeasible, as the problems faced by anti-capitalist and ecosocialist movements will still be translocal in

nature. The need for a robust political anchor and a system of translocal coordination can be best achieved through a mass political party aiming at state power and working to expand, deepen, and solidify democratic socialism. In a period of socialist transition, it is only a party such as this, with roots in local movements but committed to translocal coordination and systemic change, that can offer a workable platform for a food justice movement that takes localization, equity, and social justice seriously. The converse is also true: the only way a truly effective food justice movement with aims of environmental and social justice can succeed is by engaging both with and beyond the constraints and particularisms of place. The dialectical and dynamic relationship between movements and institutions at different scales of political economic organizing requires a concerted effort to articulate often disconnected local groups with a broader project of systemic change that recasts economic, social, and ecological values in non- and anti-capitalist forms. At the same time, this articulation must be reflexive, incorporating local needs, feedback, and democratic participation to strengthen trans-local organization and coordination. Only in this way can the decommodification of the food system and the establishment of a new set of values, as described below, become a goal and foundation for democratic control and participation in a moment of socialist transition.

**(4) The democratic socialist party must be rooted in an affirmation of life-value.** Underlying the economic and ecological crisis of contemporary capitalism is a systematic degradation of planetary and human life-value. The concept of life-value derives from the work of John McMurtry.[9] It refers to resources that sustain life, institutions that enable its development, and the expression and enjoyment of the capacities that define lives that are worth living. Thus the normative foundation of our practical argument is the claim that at root socialism is essentially a society which prioritizes the production of goods that satisfy real human life-requirements in ecologically sustainable ways – for the sake of the wider and deeper development of the creative capacities of human beings.

**(5) Given that the structural crisis of U.S. capitalism cannot be resolved within the parameters of the current system, we look back to the work of Marx and Engels during 1870s, 1880s, and, following Marx's death in 1883, of Engels until his**

[9] John McMurtry, *Value Wars* (London: Pluto), 2002, pp. 155-56.

**own death in 1895, specifically their views on building working-class political parties.** Both saw the creation of such parties as necessary steps toward the conquest of political power and emancipation from capitalism. We argue that the turn toward a social-democratic compromise was rooted in capitalist political economy, namely that the long crisis of 1873-1895 was solved temporarily by capitalism's "mutation" to finance capital, or imperialism, which led to a new and massive round of capital accumulation. This renewed accumulation – at the expense of the peoples and the environments of the colonized world – created the basis for ruling-class concessions to working-class movements within imperialist nations, causing European labor to lose touch with commitments to build revolutionary socialism, and along internationalist lines. In contrast, we propose that U.S. capitalism now lacks this same capacity, that is, to grant significant concessions and/or conciliatory reforms which, moreover, are determined ultimately by the energy/ecology constraints of the current, global capitalist crisis.

On the basis of these arguments, all of which will need much more detailed treatment, we contend that the objective conditions that allowed revolutionary socialism to turn into social-democratic reformism are no longer present; the possibility for another historic compromise of social democracy is now off the table. *In short, social democratic reformism in the United States is dead.* What was once considered reformist are now objectively revolutionary insofar as the system literally cannot accommodate them. We will say more about this in our conclusions.

Here we also offer a brief explanation about the structure of our essay. From this point the reader encounters a lengthy and sometimes dense discussion of the five general areas we outlined above. The order of treatment flows from our view that the structural crisis of contemporary U.S. capitalism is also fundamentally an ecological one of unprecedented scale that threatens the United States as well as the rest of the planet. This is why we take up the question of energy and the necessity of nuclear power in the period of socialist transition. We warn the reader that this section is unavoidably technical. We have tried to make the technical discussions as clear as possible, explaining all our numbers, and we have made available a host of sources and links for further study. In establishing a plausible argument for nuclear power, we then explain why most approaches to localized food production are inherently delimiting. Since all discussion to

this point necessarily assumes how we view the world and do what we do, we then move to a philosophical discussion of life value. Having treated the four topics in this order, we then look at the writings of Marx and Engels on the formation of working-class political parties and how they might guide us toward the creation of our own**.**

**(1) The Reality of Structural Crisis: Depression in a Moribund Empire**

As we stated earlier, official unemployment is back to 9.1 percent, higher than it was in March when the government announced with some satisfaction that it had dropped to 8.8 percent.[10] Yet despite these monthly fluctuations, it is likely that conditions are no better – and probably worse – than they were in late summer 2010, when Jack Rasmus calculated that the true total jobless then stood somewhere between 23 and 25 million. He added:

> And these don't account for the tens of millions of inner city youth, undocumented and itinerant workers who are never interviewed by the labor department in its estimating of unemployment rates. . . . The true level of jobless workers is thus likely in excess of 25 million and the true effective unemployment rate between 18 and 19 percent. To recover the jobs lost since the current recession began in December 2007 would require hiring more than 300,000 workers every month from now until 2017.[11]

Measuring total employment becomes more problematic when attempting to calculate the number of underemployed, since experts lump together the unemployed, part-time workers, and those who have simply stopped looking for work. Earlier this year, Frances Fox Piven estimated that 11.5 million Americans were either working part time or had stopped looking for work.[12] As of September 2010, the Labor Department had calculated the total of unemployed and underemployed at 26.2 million people.[13] Figures for underemployment had already been established in early 2010 in a state-by-state report

[10] Bureau of Labor Statistics, April 1, 2011 <http://www.bls.gov/news.release/empsit.nr0.htm>.
[11] Jack Rasmus, "An Economic Crisis Balance Sheet," *Z Magazine* (July-August, 2010), p. 32.
[12] Frances Fox Piven, "Mobilizing the Jobless," *The Nation*, January 10/17, 2011, pp. 7-8.
[13] Christopher S. Rugaber and Michael Liedtke, "Experts predict shifts in employment," *The Associated Press*, September 6, 2010.

issued by the U.S. Bureau of Labor Statistics, which showed that it had risen nationally in 2009 to 16.2 percent; many states showed even higher rates, especially California, Michigan and Oregon, where it exceeded 20 percent.[14] As state and local governments continue to slash budgets and public sector employment, the new jobs created in the private sector are generally in low-paying service areas such as retail, residential care facilities and, of course, food services and drinking places, with median wages falling below $15.[15]

These crumbling employment conditions are responsible for the rising poverty we see around us. By the end of 2009, the U.S. poverty rate had reached the highest level in 15 years: 44 million Americans – one in seven overall, one in five children – living in poverty. According to a report released in January, poverty in Greensboro, North Carolina, the third largest city in the state, had already reached 20 percent by the end of 2009.[16] Philadelphia's poverty rate of 25% in September outpaced poverty rates of the nation's largest cities, including Chicago (21.6%), Houston (20.6%), Los Angeles (19.58%) and New York City (18.7%); none even came close to Detroit, the 11th largest city in the country, at 36.4%.[17] One indication that poverty is still rising is the increase in the number of food stamp recipients, 41.3 million by mid-2010, up from 39 million at the beginning of the year.[18] The impact on children has been devastating, as the increase of those falling into poverty between 2008 and 2009 was the largest yearly increase ever recorded; in 2009, 15.6 million children were on food stamps monthly, a 65 percent increase since 1998.[19] With more and more Americans losing jobs and homes, the number of multi-family households jumped 11.7 percent from 2008 to 2010, reaching 15.5 million or 13.2 percent of all households, some 54 million people.[20]

---

[14] Catherine Rampell, "Underemployment, State by State, *Economix*, March 1, 2010 <http://economix.blogs.nytimes.com/2010/03/01/underemployment-state-by-state/>.
[15] Michael Luo, "In Recession, New Jobs Often Mean Lower Wages," *The New York Times*, September 1, 2010.
[16] Richard M. Barron, "Report: Poverty Rate rises to 20%," *News & Record* (Greensboro, NC), January 28, 2011.
[17] Catherine Lucey, "City Poverty Rate Climbs," *Philly.Com*, September 28, 2010 <http://www.philly.com/philly/blogs/cityhall/City_Poverty_Rate_Climbs_.html>.
[18] "Recession Raises U.S. Poverty Rate to a 15-Year High," *The New York Times*, September 17, 2010.
[19] Charles M. Blow, "The Decade of Lost Children," *The New York Times*, August 6, 2011.
[20] Michael Luo, "Doubling Up in Recession-strained Quarters," *The New York Times*, December 29, 2010.

Moreover, measuring poverty is just as problematic as determining real unemployment and underemployment. For example, the national poverty level for a single person in 2010 was set at an annual income of $10,830 and $22,050 for a family of four. But according to a recent study by the non-profit group Wider Opportunities for Women, which has determined thresholds for economic stability rather than mere survival, a single worker requires an annual income of $30,012, or about a $14 hourly wage (about twice the federal minimum wage of $7.25 per hour) to cover basic expenses and save for retirement and emergencies. A single worker with two young children requires $57,756 annually (just over $27 an hour), while a family with two working parents and two young children needs $67,920 a year (about $16 per an hour per worker). Since the most recent data from the Census Bureau claims that 14.3 percent of Americans were living below the poverty line in 2009, only an exhaustive study of American families could even hope to come close to measuring real U.S. poverty in 2011.[21] Meanwhile, high unemployment and the expiration of federal homebuyer tax credits in April of 2010 have caused home sales to collapse. According to Allen L. Sinai, chief global economist at the consulting firm Decision Economics, median house prices have dropped 20 percent since 2005; Sinai adds that given an inflation rate of 2 percent, it would take 13 years for peek prices to return.[22] Housing prices slid in January for the sixth straight month, with eleven cities hitting new lows in the downturn.[23] Even record low interest rates on 30- and 15-year mortgages, creating a so-called buyer's market, have failed to jump start sales. Compounding the crisis of the housing market is the foreclosure rate, which hit a record one million foreclosures in 2010. Experts at RealityTrac Inc. say it will be even worse in 2011, predicting that 1.2 million homes will be repossessed this year.[24]

Across the United States, huge state and local budget shortfalls have forced governments to reduce public-sector jobs, from clerks and teachers to firefighters. As Rick Wolff has demonstrated, The American Recovery and Reinvestment Act offset modest portions of the states' fiscal budget shortfalls for 2009 and 2010, but the worst of

[21] Motoko Rich, "Many Jobs Seen as Failing to Meet the Basics," *The New York Times*, April 1, 2011.
[22] Michael Powell and Motoko Rich, "Across the U.S., a Long Recovery Looks much like a Recession," *The New York Times*, October 13, 2010.
[23] David Streitfeld, "Housing Prices Slide for a Sixth Month," *The New York Times*, March 30, 2011.
[24] "2011 to top 2010's record of 1 million foreclosures," *The Associated Press*, January 14, 2011.

the shortfalls will hit in 2011 and 2012.[25] In late December of 2010, a *New York Times* editorial declared a "looming crisis" in the states, which combined are facing a $140 billion shortfall in 2011. Declining tax revenues and increased demand for services have resulted in huge cuts by state legislatures to education, Medicaid, transportation, social services, courts, and employee salaries "often at ruinous costs to the most vulnerable, the poor, the sick and disabled, students, and tens of thousands of laid-off workers." States and cities have nearly $3 trillion in outstanding bonds, and more than $3.5 trillion in shortfalls to pensions.[26] In September, states will have to begin paying the $1.3 billion in interest on the billions they borrowed from the federal government to pay their unemployment benefits.[27] Meanwhile, state legislatures are passing on their budget pains to municipal governments with deep cuts in aid to cities that will result in more public-sector layoffs and, ironically, given these mostly Republican-controlled bodies, local tax increases to prevent even deeper cuts to libraries, garbage pickup, and police and fire protection.[28]

Only a new New Deal could have mitigated the impact of this new depression, but the moment for this has long passed and the reasons for its absence have been dutifully explained by numerous analysts on the Left.[29] Indeed, the growing obsession with deficit reduction by Republicans and Democrats alike during the last two years has ended all meaningful discussion of a second stimulus aimed at infrastructure projects that could restore jobs to some of the millions now unemployed. Rather than public works projects reminiscent of the New Deal, the government default is consistently about monetary policy. For example, the Federal Reserve announced in November of last year that it would pump $600 billion into the U.S. banking system over an eight-month period. The plan, intended to push down long-term interest rates for the purpose of encouraging borrowing and stimulate economic growth, carried substantial risks that could further

[25] Rick Wolff, "The Bullet," *Socialist Project, E-Bulletin No. 268*, November 2, 2009.
[26] "The Looming Crisis in the States," *The New York Times*, December 26, 2010.
[27] Michael Cooper and Mary Williams Walsh, "Interest Adds Up to a $1.3 Billion Bill for States," *The New York Times*, January 15, 2011.
[28] Michael Cooper, "States Pass Budget Pain to Cities As Cutbacks in Services Cascade," *The New York Times*, March 24, 2011.
[29] See for example, Gregory Meyerson and Michael Joseph Roberto, "Obama's New Deal and the Irreversible Crisis," *Socialism and Democracy*, vol. 23, no. 2 (July 2009), 55-69; John Bellamy Foster and Robert W. McChesney, "A New New Deal under Obama?" *Monthly Review*, vol. 60, no. 9 (February 2009), pp. 1-11.

weaken a broken economy.[30] In a study released in January, for example, Fed researchers predicted that the plan would lead to a "significant pickup" in economic growth and the creation of roughly 700,000 jobs by 2012, though some critics argued that the rise in structural unemployment since the beginning of the downturn was not amenable to such a quick fix.[31] In light of the Fed's most recent developments to keep down short-term interest rates until 2013, it is clear that its pump priming has failed to turn the tide.

Since many commentators view the current crisis as the worst since the 1930s, let's briefly entertain one aspect of the comparison if only to point out how solutions differ then and now. For the most part, the New Deal marked the complete transition to state capitalism as the federal government committed itself to wholesale intervention into the private economy. Through newly created agencies the government set out to inflate prices while restricting agricultural and industrial production, as well as engaging in marked spending increases to finance public works and relief measures – all which helped to pull the U.S. economy back from the abyss in 1933 to limited recovery four years later. At that point, the Roosevelt administration decided that it was time to turn over the rest of the job of recovery to the private sector. The result was a disastrous reversal in 1937, the so-called Roosevelt recession, which only then convinced a reluctant FDR to fully embrace Keynesianism, a decision that was pivotal to sustained recovery. In April 1938, Congress received a message from the president entitled "Recommendations Designed to Stimulate Further Recovery," which resulted in a budget that put back the $2 billion that had been cut out of the previous year, as well as further increases in congressional appropriations for various New Deal agencies. Most importantly, military expenditures also increased. As a result, the net deficit at the end of 1938 was almost six times as large as the end of 1937. By 1939, spending on relief had risen to the unprecedented level of $2.9 billion. Recovery through fiscal policy, meaning large and persistent public spending, had become axiomatic. Consequently, the annual deficit of the U.S. government rose from $3.6 billion in 1939 to almost $5.2 billion in

[30] David E. Sanger and Sewell Chan, "Fed Sets Out Plan Using $600 Billion To Spur Economy," *The New York Times*, November 4, 2010.
[31] Sewell Chan, "Economists Express Caution On Forecasts in a Fed Study," *The New York Times*, January 10, 2011.

1941. By 1939, GDP had recovered to its 1937 level and some private investment had also returned, though unemployment remained at 17.2 percent.[32] While it is common knowledge that World War II ended the Great Depression, it is also true that the complete turn to fiscal policy, whatever the degree of recovery it did or did not achieve, was possible because the U.S. had the means to implement it as the future world's banker. Unlike the 1930s, however, as we shall see, this depression is the product of a moribund empire now in the grips of a structural crisis that offers no prospects for recovery – unless recovery means wider imperialist wars, and greater regimentation of labor and social life at home. As some of us have argued, this can only bring an intensification of fascist processes that without the emergence of a major countervailing force makes plausible an American-style fascism.[33] Put another way, we are well into a systemic crisis that may generate a crisis of class rule itself, though no one can predict when that might occur or what form it will take.

What all this means is that we have moved well beyond what Paul Sweezy and Harry Magdoff meant by "irreversible crisis" in the late 1980s, which they defined as the product of deep stagnationist tendencies in monopoly capitalism that could be deferred (but not solved) principally through financialization.[34] Each deferral intensified the contradictions (between capital and labor/among capitals intra and internationally). Rooted in the 1970s, these developments have converged into what István Mészáros has recently conceptualized as "an all-embracing structural crisis" of capital, meaning that

- it is *universal* rather than restricted to one sphere (i.e. financial or commercial, or one in a particular branch of production)
- it is global and systemic in *scope*
- it is *permanent* (under capitalism) rather than limited or cyclic
- it is *creeping* in its mode of unfolding rather than spectacular and dramatic – though this does not exclude the appearance of "the most vehement or violent

[32] Charles H. Hession and Hyman Sardy, *Ascent To Affluence: A History of American Economic Development* (Boston: Allyn and Bacon, 1969), p. 741.
[33] Gregory Meyerson and Michael Joseph Roberto, "Fascism and the Crisis of Pax Americana. *Socialism and Democracy*, vol. 22, no. 2 (July 2008), pp. 157-91).
[34] Paul M. Sweezy and Harry Magdoff, *The Irreversible Crisis* (New York, Monthly Review Press, 1988).

> convulsions" in the future when all efforts in crisis management of growing contradictions run their course.[35]

Mészáros brings all this to bear on the U.S., whose role as "the supreme power of global hegemonic imperialism" in its quest for global domination inevitably is accompanied by the intensification of authoritarian trends internationally and internally, as well as the possibility of resistance to it on both fronts.[36]

Accordingly, we can usefully contrast Mészáros' analysis of the current structural crisis of global capital and its ramifications for the United States with Alfred Sohn-Rethel's characterization of the structural crisis of monopoly capitalism in Germany in the 1920s and early 1930s. For Sohn-Rethel, the structural crisis in Germany put its whole capitalist system in jeopardy, making the turn to fascism the only way the ruling class could "reconsolidate" German capitalism. "Within the given boundaries of the market," Sohn-Rethel wrote, "there was no longer any profit margin to be hammered out of the mode of production and the increases of capacity which had emerged from the rationalization of the 1920s . . . monopoly capital demanded the bursting of these boundaries, the escape from the straight-jacket which they represented."[37] To this end, Hitler and the National Social German Workers Party (NSDAP) restored profitability to German capitalism by creating a war economy based on the total control of German labor and the subordination of the German bourgeoisie to fascist state power. For Sohn-Rethel, this came in two steps (1) removing the constraints on further expansion of monopoly capitalism created by conditions of excess capacity and declining profitability, which Sohn-Rethel viewed as the efficient cause of the crisis and (2) creating a fascist war economy that removed the straight-jacket by imposing a labor regime based on absolute surplus value within a set of economic processes that delivered non-reproductive values and non-marketable goods.

Let's briefly plot these steps.

---

[35] István Mészáros, *The Challenge and Burden of Historical Time: Socialism in the Twenty-First Century* (New York, Monthly Review Press, 2008), p. 409.
[36] Mészáros, *Challenge and Burdens of Historical Time*, p. 414.
[37] Alfred Sohn-Rethel, *The Economy and Class Structure of German Fascism*. Trans. by Martin Sohn-Rethel (London: Free Association Books, 1987), p. 128.

For Sohn-Rethel, the root of Germany's structural crisis was not the onset of the financial crisis that came in 1930, but conditions that developed earlier with the *rationalization* of German industry during the 1920s, specifically in 1924, after massive private loans from New York banks stabilized the German economy and unleashed a brief yet impressive cycle of growth. Rationalization – the reorganization of production to maximize efficiency and profits made possible by increasing monopoly ownership and control – was fueled by a boom of investment and construction in the means of production. In rationalization Sohn-Rethel observed what Marx had theorized in his *Grundrisse*, that investment in the means of production enlarged "the organic composition of capital," as the material means of production, or fixed capital, grew relative to the human labor expended in the processes of production.[38] Accordingly, fixed costs rose, and herein lay the contradiction. Following Marx, Sohn-Rethel noted that the share of fixed costs in German production during the boom years of the mid-1920s increased, to the point where it determined the organizational structure in the process of production and became separated from the relative surplus value of wage labor in the production process. Put another way, the drive to enlarge fixed capital for the purposes of rationalizing production ultimately turned into its opposite as the rising costs of machinery and production per unit became distinct from the extraction of surplus value from wage labor, and by extension ultimately from supply and demand. In other words, German monopoly capitalism rationalized itself into excess capacity that could not be satisfied by consumption – the rational turned irrational. By 1928, rationalization had created the paradox of so-called capitalist prosperity, that is, excess capacity and limits to profitability within the boundaries of a market saturated with goods whose values were declining. In this respect, Sohn-Rethel's analysis of the German crisis was similar to Lewis Corey's more extensive treatment of the U.S. crisis in these same years, namely that the expansion of investment in U.S. capital goods during the early and mid-1920s created overcapacity and a decline in the rate of profit, which Corey likewise saw as the efficient cause of the Great Depression.[39]

[38] Karl Marx, *Grundrisse: Foundations of the Critique of Political Economy*. trans. Martin Nicolaus (New York: Vintage Books, 1973), p. 703.
[39] Lewis Corey, *The Decline of American Capitalism* (New York, Covici-Friede Publishers, 1934).

According to Sohn-Rethel, the fascist solution to structural crisis caused by declining profitability was the reversion to a labor regime based on absolute surplus value. In other words, the political economy of the Hitler regime reverted to an earlier form of capitalism when surplus value was measured simply on the basis of a fixed absolute magnitude, meaning the extension of labor time to an absolute length of the working day and, beyond that if necessary, the speeding up of labor; in short, "the technical and social conditions of labor [were] tantamount to a fixed absolute magnitude."[40] To do this, the Nazis had crushed what was left of the labor unions by spring 1933. They then forced employers to drastically reduce unemployment by hiring workers at wages comparable to their unemployment allowances, a move made possible when the government ordered a percentage deducted from the wages of those who were already employed. For Hitler, the speedy liquidation of unemployment was best served by what was called "quantity-prosperity," the basis of a new regime of low-paid labor. Slashed wages then brought depressed consumption, creating what Sohn-Rethel called "a viable system of dysfunctional capitalism . . . [a] paradoxical formula" that defined the fascist economy in 1933.[41] As Sohn-Rethel explained, the policy of slashed wages marked a big step in the direction of a fascist economic system, yet an even bigger step was needed to achieve structural completion:

> Thoughout its first year of existence the Hitler-regime made up its slow industrial recovery mainly on the basis of civilian production subsidized by various job creation schemes. Rearmament, its vital objective, commenced at the beginning of 1934: This brought about a clear-cut bisection of the German economy: one part occupied with the provision of the necessary reproductive values for the upkeep of the population, that is, the production and marketing of food, clothing, housing, etc, and their means of production; the other devoted to munitions, arms, military building like fortifications and above all the erection of the military reserve-capacities . . . fully equipped for production at the outbreak of

[40] Sohn-Rethel, *Economy and Class Structure of German Fascism*, pp. 92-93.
[41] Ibid., p. 89.

> hostilities. This was an economy entirely centered upon non-reproductive values and, except for exports, upon non-marketable goods.[42]

For Sohn-Rethel, the financial debacle that commenced in Germany in 1930 as a byproduct of the Wall Street stock market crash became the tipping point for a structural crisis rooted in the rationalization of German industrial capitalism in the 1920s. The totality of the crisis – declining profitability from rationalization and financial collapse – prevented the revival of German capitalism on the basis of productive values and marketable goods. So, Sohn-Rethel concluded, German capital could only be reconsolidated on the basis of a fascist war economy, which relegated productive values and marketable goods to secondary status by means of a conscious effort by the Nazis to lower wages and depress consumption, which lowered demand. Thus, the basis of the fascist war economy was non-productive values, "products which are not consumed either directly or non-directly into the maintenance or renewal of human labor power and social life or into the renewal of productive machinery," generated from the production of non-marketable goods, which Sohn-Rethel defined as essentially "waste products," and among them primarily armaments.[43]

By comparison, the current structural crisis of U.S. capitalism is the product of a deepening stagnation in the productive economy since the early 1970s, which necessitated a decisive turn toward financialization by U.S. capitalists to maintain profitability. By the late 1980s, Sweezy and Magdoff pointed to the increasing reliance on debt at all levels (government, corporate, and individual) to counter stagnationist tendencies in the real economy. Deficits arising from federal government expenditures more than doubled between the early 1970s and the late 1980s. Facing excess capacity and flagging demand that diminished opportunities for profitable investment in the productive economy, corporations resorted to financing mergers, takeovers and leveraged buyouts, becoming lenders and borrowers on an enormous scale. Meanwhile, the financial sector created new instruments that grounded profit-making in increasing risk and speculation. From our vantage point, however, the most deleterious impact of

[42] Ibid., p. 92.
[43] Ibid., p. 30.

financialization and indebtedness was to working people. As wages lagged behind prices, consumers continued to buy homes and cars thanks to lenders who eased borrowing terms to maintain their profits. By 1987, consumer debt stood at close to 90 percent of after-tax income.[44] These trends continued into the 1990s as financialization became increasingly more speculative, debt levels soared, and the real economy became correspondingly less productive. Much was made of the revolution in digital technology and the Internet in the mid-1990s, the so-called "New Economy" that promised uninterrupted economic growth and an end to the business cycle. But as readers of such journals as *Monthly Review* have learned well, consumption based on deepening debt rather than productive investment drove the New Economy. By the end of the decade, the bursting of the dot.com stock market bubble made all talk of the New Economy mere ballyhoo as the recession of 2000-2001 set in and then deepened in the wake of the 9/11 terrorist attacks – transforming a three-decade protracted crisis into an acute one. The invasion of Iraq in 2003 pushed debt at all levels of society even higher. What followed was yet another bubble in home mortgages brought on by predatory lending practices. Meanwhile, the fate of the U.S. economy became increasingly dependent on China, Japan and others' purchase of U.S. treasury bills as the real economy suffered a bulging trade deficit and increases in layoffs and long-term unemployment – all which contributed to the onset of the Great Recession in December 2007. The bursting of the home mortgage bubble, which produced a crisis of the financial sector in September 2008, turned quantitative change to qualitative change as the collapse of finance capital within the broader framework of long-term destruction of the productive economy required unprecedented state intervention into saving private finance – while simultaneously decimating those parts of the public sector geared toward social needs.[45]

Of course, any discussion of the structural crisis of U.S. capitalism must also consider the growing rivalry with China, one that depends on two dominant and interrelated trends: the development of China's domestic economy – tied to the larger regional economy of South Asia – and China's high stakes poker game of financing U.S.

[44] Sweezy and Magdoff, *Irreversible Crisis*, pp. 14-18.
[45] This paragraph in part flows from what Foster and Fred Magdoff refer to as the "symbiotic embrace" between stagnation and financialization in *The Great financial Crisis: Causes and Consequences* (New York: Monthly Review Press, 2009), p. 19.

debt. The first requires wage costs to rise so that employers can pay workers higher wages in order for consumers to buy more of what they produce. The second will require Chinese leadership to decide when U.S. debt financing to support Chinese exports to American markets becomes a major drag on the first. Indeed, the increasing volatility of U.S.-China relations reflects what David Harvey calls the tectonic shift of world capitalist leadership to Asia.[46] The once fairly stable, de facto partnership based on China's financing of U.S. debt in return for the marketing of cheap exports will steadily deteriorate as China turns increasingly toward the construction of what is likely the last major core area of the 500-year-old world capitalist economy, East Asia. Barring a miraculous recovery of the real U.S. economy, China will continue to make other more profitable arrangements; for example, it has joined with Saudi Arabia, Kuwait, Qatar and other members of the Gulf Co-operation Council in a joint initiative – Russia, Japan and France are also involved – to create a basket of currencies including the Japanese yen and Chinese yuan, the euro, gold and a new, unified currency that will bring an end to the pricing of oil in U.S. dollars. But oil is not the only interest China has in the Middle East. Its exports to that region are varied and increasing, from cars and weaponry to food, clothes, and even dolls.[47] Meanwhile, despite the massive environmental and ecological costs, its domestic economy continues to grow rapidly, so much so that rising prices and inflation now constitute the main worries. Compared to August 2009, industrial production in August 2010 rose 13.9 percent, retail sales 18.4 percent, bank lending 18.6 percent and fixed asset investment 24 percent.[48]

What all this means is that the failure of U.S. state power to turn the tide toward a recovery of the real, productive economy places us in a structural crisis that resembles – but differs in its particularities with the German crisis – what Sohn-Rethel described in Germany during the 3-4 year period prior to the ascension of fascism as a form of state power. Since the 1970s, the protracted crisis of the U.S. productive economy has been accompanied by the rising importance of non-productive value and non-marketable goods, not only armaments, but policing and prisons, as well as the myriad ways in which waste itself is produced – and even its removal. Naturally, we must also include in this

[46] David Harvey, "Why the US Stimulus Package is Bound to Fail" <http://www.marxmail.org>.
[47] Robert Fisk, "The Demise of the Dollar," *The Independent*, October 6, 2009.
[48] "Roaring Economy Lifts Prices in China, *The New York Times*, September 12, 2010.

category the various financial instruments and packages that have marketed debt. Even the so-called recovery that we now see in private sector jobs, many of them temporary and at much lower wages, can be viewed as an example of the move toward the expropriation of labor on the basis of absolute surplus value. In short, the dialectic of financialization and militarization that has characterized the U.S. crisis during the last four decades is the counterpart to Sohn-Rethel's earlier characterization of the German crisis.

At the same time, the U.S. crisis is the product of an all-embracing, global structural crisis of capital that, Mészáros theorizes, distinguishes it from the 1929-33 global crisis that produced a fascist regime in Germany. Regardless of its severity, the earlier global crisis, Mészáros argues, was a "periodic or conjunctural crisis . . . capable of a solution within the parameters of the given system."[49] Despite their seeming differences, we would argue that both are correct. Mészáros is clearly right in pointing to a structural crisis profoundly different from the 1930s, since the environmental and ecological conditions in this period make it possible to grasp the ultimate limits of capital itself. Yet he doesn't acknowledge, at least not explicitly, that the earlier global crisis produced German fascism and a second global war as the result of a structural crisis of German capital and liberal capitalist democracy.

From the standpoint of contemporary world history, the distinction between Sohn-Rethel and Mészáros on what constitutes a structural crisis of capital is one of scale within the paradigm of Late Capitalism. The structural crisis of German capital that ushered in National Socialism and global war, an attempt to restore empire, paved the way for a new round of global capital accumulation under the aegis of a new kind of capitalist empire, Pax Americana. Now, the coming of a third great depression in the United States against the backdrop of a global, structural crisis that features endless struggles for finite resources within discernable ecologic limits, signals the death of Pax Americana – and with it a desperate ruling class that makes what is left of American global power the single most volatile and, therefore, dangerous force in the contemporary global order.

[49] Mészáros, *Challenge and Burden of Historical Time*, p. 408.

Here, the words of one who experienced the German crisis first hand, Alfred Sohn-Rethel, are chilling:

> Never, of course, in the rational interests of humanity, should monopoly capitalism be permitted to side-track from its function of the economic reproduction of social wealth in order to pursue an economy of destruction. But if the political forces of social revolution fail to put an end to capitalism in its last struggle, then the blind causality of disaster is bound to take its course with all its murderous consequences.[50]

**(2) Energy and Environment: Taking nuclear power seriously**

Capitalists must maximize profit to survive. The requirement of ceaseless capital accumulation, no matter how efficient, is ultimately incompatible with the health of the planet.[51] This antagonism between capitalism and nature is rendered still more acute by the way that, under capitalism, constant growth is constantly at war with monopoly capitalism's intrinsic stagnationist tendency. The consequence of the contradiction between the expansionist imperative and stagnationist tendency goes beyond the ecological consequence of exponential growth itself. This contradiction is one manifestation of the uncontrollability of capital. Put another way, growth by itself might

[50] Sohn-Rethel, *Economy and Class Structure of German Fascism*, p. 130.

[51] The idea of growing the economy while reducing energy throughput is widely articulated among green progressives. To take one example, Arjun Makhijani, in his *Carbon Free and Nuclear Free: A Roadmap for U.S. Energy Policy* (Takoma Park: IEER Press, 2007), thinks that with wind, solar, gas, and biofuel, phasing out gas, we can grow the U.S. (he leaves out rest of world) economy 3% per year while reducing energy throughput by 1% per year until 2050. You have to do the math to realize that something, perhaps, is being smoked. Three percent growth per year from his base year of 2005 would nearly quadruple (3.7x) the size of the U.S. economy all while energy use was reduced from 100 quads (quadrillion BTUs) to 64 quads. His evidence for being able to do this is extremely thin – coming from individual company success stories. We should note that this idea of growth with diminished throughput was put forward famously by Amory Lovins, who predicted that energy growth would flatline in the early eighties. But he was wrong. Despite widespread unit efficiencies, energy throughput has grown 30% in the U.S. since then. The reason may have to do with the Khazzoum-Brookes (or the closely related Jevons Paradox) postulate that shows how energy efficiency could increase energy use: you drive a lot more in your energy efficient car while continuing to sell as many cars as possible. Energy efficiency improves in the home while homes get larger and more are built. A new technology saves energy (efficient lightbulbs) but its introduction leads to a multiplication of uses so that the savings at unit level are neutralized or utterly countered at the level of total use. Minqi Li, *The Rise and Fall of China and the Demise of the Capitalist World Economy* (New York: Monthly Review, 2008), pp. 144-48, notes that for something like the Lovins-Makhijani scenario to hold under the accumulation imperative, the "environmental impact per unit of output" "would have to fall indefinitely." Our discussion of an all-renewables scenario under capitalism reduces this argument to the absurd.

be at least planned. However, having ceaselessly to overcome the contradiction between growth and stagnation is bound to be an unplanned process, characterized by chaotic destruction of capital and wars (i.e. disaster capitalism), with predictably devastating environmental impact.

Below, we will take apart the view that capitalism could solve the greenhouse gasses (GHGs) problem through the development of clean technologies. Our argument is that the prospect of global capitalism overcoming its contradictions – imperialism and its imperialist wars, the structural domination over labor, and the anarchy of capitalist production – in order to cooperate on a global energy venture powered by clean technologies, even at current world energy consumption, let alone at future growth-expanded levels is both hard to imagine and certainly without precedent. There are, at present, no signs of world capitalism moving even remotely in this direction, as the recent Copenhagen conference shows. The wars in Afghanistan and Iraq would have to end; all competitive advantage related to natural resource access and technological superiority would have to be given up; and intellectual property rights would have to be radically transformed or eliminated. All this would render the wage and competition structure unrecognizable. Such coordination, in short, would require the peaceful transformation of capitalism undertaken for the good of the planet, with blocs of competitor capitalists cooperating together on a global scale. Capitalism would, in effect, have to cease being capitalism altogether, an unlikely prospect.

Even at a national level, the coordination required to manage let alone solve the energy problem rapidly (by 2020 for many green enthusiasts) and continue growth would require a transition period of extremely costly infrastructure investment and lowered consumption, the sort of thing that the Soviets were only fitfully able to do with their five-year plans. It is hard to imagine how U.S. capitalism could pull this off, given the debt, the anarchy of capitalist production, the problem of peak oil, the massive destruction of capital that would be the flipside of this investment and subjective factors like the ideological situation in the U.S: from entrenched political resistance to massive government intervention and planning, etc. to the demonization of nuclear power that characterizes its environmental movement – unless there were some kind of military

takeover, perhaps even green fascism.[52] With the profoundly unstable combination of stagnation and volatility not nearly overcome, such investment does not seem to stand much of a chance.[53]

*What a new, democratic-socialist mass party must do is lead a revolutionary transition that is at once an energy transition.* This means we have to propose a clean energy package as part of this transition. A key aspect of this package, we believe, must include a critical account of the limits of renewable energy, and a frank consideration of nuclear power. This section of the paper, therefore, outlines both a critique of any non-nuclear renewable energy scenario along with a call for serious consideration of an energy transition based in new nuclear power, with possibly significant niche roles for renewables.

As will become clear to readers, beyond our comments in the footnotes on the limits (and paradoxes) of efficiency under capitalism, this essay does not deal directly with the need for demand-side reduction in energy usage, whether through conservation efforts, or through more radical measures involving restructuring the productive and reproductive base of society. No single paper can speak to every important issue. We certainly believe that conservation efforts are very important, that they have an important role to play, and that they should be supported. Moreover, we would add that the kind of radical restructuring of industry, of housing, of transportation, of agriculture, and even of leisure that will be necessary to bring about significant per capita and absolute energy consumption reductions can only be seriously attempted, let alone accomplished, if we transcend capitalism, with an ecosocialist state guiding the way through social planning.

---

[52] For scenarios involving military intervention to impose something like Fortress America in response to climate events and affiliated food and water shortages, see Gwynne Dyer, *Climate Wars: The Fight For Survival as the World Overheats* (Oxford: One World Publications, 2010).

[53] Peaking oil or near peak might well unmake any incipient recovery (understood from the capitalist's point of view as a return to healthy growth). In a recent essay on the crisis, we discussed the negative synergies between peak oil and the financial crisis. In particular we pointed to energy prices due at bottom to supply constraints in the face of increasing demand as a kind of negative feedback mechanism that would shut down growth as soon as it got going. Demand would climb, leading to an oil price spike in turn shutting down demand. An alternative scenario is that the situation we're in now could last, with high energy prices (as opposed to sky rocketing) and stagnant demand: stagnant oil production (generally flat and now declining production of light sweet crude) prevents the recovery in the first place that would have produced the soaring oil prices we expected to knock economic growth back. That said, a recent Deutsche Bank report has oil hitting 175$ a barrel by 2016 <http://climateprogress.org/2009/10/07/deutsche-bank-oil-to-hit-175-a-barrel-by-2016-which-will-drive-a-final-stake-into-long-term-oil-demand-spurred-by-a-disruptive-technology-the-hybrid-and-electric-car-that-will-very/>.

However, the fact remains that, short of giving up on industrial civilization altogether – including electricity, urbanization, etc – a prospect that some consider desirable but which the present authors find a horror-scenario to be avoided at all costs, our future ecosocialist society is still going to need very significant energy production. Thus, for the sake of this essay, we bracket conservation as necessary but inadequate to the tasks facing humanity. We will still need a lot of energy (at present well over a billion people on earth don't even have access to electricity at all!), and so the question remains: where can we and ought we to get this energy from? It is with this question that the present section of the paper is concerned.

**Renewable Myths**

A widely influential recent *Scientific American* article by Jacobson and Delucci suggests that with enough political will, the world could replace its current energy grid with one based solely on renewables.[54] The mix includes 4 million 5 megawatt (MW) wind turbines and 89,000 large photovoltaic and concentrated solar power plants, each rated at 300 MWs, and 900 hydro stations. The authors believe that this goal is possible to accomplish by 2030. For reasons we touch on above and will explain below, such a renewables scenario is preposterous under global capitalism. Moreover, we would not want it under socialism either since it carries an unacceptably large ecological footprint. Furthermore, the timeline, is sheer magical thinking. It is worth noting here that this "political will" metaphor, which shapes virtually all discourse on the anti-nuclear green non-Marxist left, is based in silly analogies between rapid advances in computer chip power and wholesale infrastructure change and a one-sided celebration of entrepreneurial innovation under capitalism. It completely ignores the powerful inertial tendencies in the system, magnified many fold at the infrastructure level, the hardest level to change.

The problem with renewables is that they are intermittent, diffuse, and fluctuating forms of power. Consequently, they require hundreds of times more space to gather this diffuse energy than coal or nuclear, which offer far more concentrated forms of energy. Coal, of course, is the main obstacle to a cleaner planet, so the problems with renewables

[54] Mark Jacobsen and Mark Delucci, "A Path to Sustainable Energy," *Scientific American* (November, 2009), pp. 58-65.

would be unavoidable if coal were the only alternative. But nuclear power is between one million and 3 million times more energy dense than coal (depending on the purity of the uranium) which means that it produces one millionth or less of the waste and far less than that with Gen IV technologies (to be discussed below).

The combination of wind/solar intermittency and diffuse power means that any future system must compensate for what in essence is renewables' lack of base power (in the broadest sense, power on demand, round the clock) through some combination of storage, fossil fuel backup and overbuild (the meaning of the term will become clear). Overbuild is hidden in Jacobson and Delucci's plan but it doesn't take much analysis to uncover it. A central part of the plan is to build worldwide 4 million 5 MW turbines. That would give us 20 Terawatts (I TW= 1 trillion) of installed capacity, perhaps not enough by itself to power a capitalist world in 2050, but more than what the world currently consumes – around 15 TW of total power, with less than a third of that coming from the electrical grid. Putting cost issues aside, including the rebuilding of the world's transmission grids, the problem here is that wind at present has a capacity factor on average of around 23 percent. That means that 20 terawatts of nameplate capacity convert to slightly under 5 terawatts of actual electricity on average. Thus, to capture 20 terawatts of wind power, it would be necessary to build not just 4 million, but 16 million 5 MW turbines. This is the problem of overbuild. And when we look more closely, the problems magnify.[55]

The standard renewables answer to the problem of intermittency is to combine geographical distribution of wind farms with high efficiency, long distance transmission lines so that if the wind isn't blowing in one area, it would be blowing in another and could be shared out with the right transmission grid (smart grids, etc). It sounds good until you look a bit closer. Considering *hypothetically* dispersed wind farms in the Midwest, Jacobson and Delucci calculate that wind farms had a baseload equivalent to coal plants of 33%. What this means is that 87 % (coal baseload) of the time, the wind system was producing 33% of its average output or capacity factor. This in turn means that given an optimistic 35% capacity factor (the average for wind is about 23%), the

[55] Overbuild is a consequence of low capacity factor in an energy system. Nameplate capacity refers to the maximum average output of a system. Capacity factor is the ratio of actual power on average to the maximum power. See <http://en.wikipedia.org/wiki/Capacity_factor>.

wind system is producing 33% of this 35% as baseload equivalent (the 87%) power. In other words, if our system has a nameplate capacity of 10 gigawatts (GW), it's actually getting only 12 percent or 1.2 GW as baseload. The approximate term for this is "capacity credit."[56] The system will require much more baseload power than a mere 12%, and so will have to turn to storage, in which case it will have to provide the power for this storage during its periods of excess power production. And it will have to provide a back-up system (usually natural gas) that can load follow, i.e. turning on and off or up and down immediately, with all the inefficiencies this entails.[57]

Another way of putting the problem is that we have to produce the appropriate amount of power when the wind isn't blowing, the sun isn't shining (nights and cloudy days), and during times of low insolation (measure of incoming solar radiation on a given surface at a given time). Winter days get less insolation than summer days and regions differ greatly with respect to insolation rates. For wind/solar to supply all electrical energy, the capture of this energy has to be scaled up to supply baseload/midload and peakload even during periods of minimum to zero supply. Germany has heavily subsidized solar energy, and they have built a lot of it: 15.51 GW of nameplate capacity to be exact. It was typical in December and January (2010-11) for the entire array to have a capacity factor (for the day) in the area of .0066, which is to say average power of one tenth of one gigawatt compared to a maximum of 15.5 GW. There were days when the

[56] "Put another way, the capacity credit of a wind farm is the amount by which other generating capacity (such as coal, for example) can be removed from the grid without compromising reliability of supply" <http://lightbucket.wordpress.com/2009/03/12/the-capacity-credit-of-wind-power/#more-4441>. This article shows that the higher the wind penetration in any grid, the *lower* the capacity credit!! Let us also note the import of the word "hypothetically." This points to the fact that there are no real-world examples of high penetration renewables systems, excluding hydro.

[57] See Barry Brook's analysis of Jacobsen and Delucci at <http://bravenewclimate.com/2009/11/03/wws-2030-critique/>. Two points are worth noting: capacity credit numbers are strictly speaking a proxy for the loss of load probability of a system, and not another term for baseload power because as long-time energy analyst Eugene Preston noted to me (GM): wind cannot provide base load power. Possibly a refined statement would be that wind cannot supply reliable power for either base load or peaking. That knocks off both ends with one statement. Wind can supply unreliable power so the customers would have to tailor their consumption to match what and when the wind can produce power. I don't think our modern society can run on that kind of power supply model. Sail boats have this power problem and use both wind and solar and batteries. However they have to monitor their usage constantly and shut down when the battery drops below a certain charge level. I talk with these folks on the ham radio and they have to watch their power usage very closely. It's not a model for businesses and most homeowners to have to be forced to use <http://bravenewclimate.com/2011/01/21/the-cost-of-ending-global-warming-a-calculation/ - comment-111810>. Germany's wind power capacity credit is 8% (1.5 GW/16.5 GW) <http://lightbucket.wordpress.com/2009/03/12/the-capacity-credit-of-wind-power/>.

array never *at any point* got to 1 GW – or 6 percent capacity factor. On Jan. 10, there were between 1-2 GW for three hours and the rest was zero (in Germany, in January, there are about 9-10 hours of daylight). If we say that Germany averaged 1.5 GW for those three hours, the total is 4.5 GWh out of 372 possible GWh, that is, *assuming that the solar system was operating at nameplate or maximum capacity* (15.5 * 24 = 372). This gives us a capacity factor of .012 or 1.2 percent. For Germans to have gotten 15 GW of actual power during this period, they would have needed between 100 and 150 times their installed capacity – between ~ 1500 and 2325 GW – a dramatic example of the problem of "overbuild."

James Lovelock's way of putting the problem sums up much of what we say above. It would require two hundred wind farms made up each of 20 1 MW wind turbines:

> . . . covering an area of one thousand square miles to equal the constant power output of a single coal-fired or nuclear power station. Even more absurd, a full sized nuclear or coal-fired power station would have to be built for each of these monster windfarms [the two hundred together] to back up the turbines for the 75% of the time when the wind was either too high or too low.[58]

An important implication of this analysis is that lifecycle cost numbers for renewables (known in the jargon as LCOE or levelized cost of electricity) that sound promising are fundamentally misleading because wind and solar do not, realistically, scale.[59] With subsidies, the cost of wind and solar can come down *as long as they rely on fossil fuel*

[58] James Lovelock, *The Vanishing Face of Gaia* (Basic Books: New York, 2009), pp. 26-7.

[59] Ted Trainer, "Can renewables, etc., solve the greenhouse problem: the negative case," *Energy Policy 38* (2010), 4112, notes the following: ". . . it can be quite misleading to think in terms of the levelised cost of electricity from specified renewable sources when estimating total system costs. Advocates of renewables typically do this, for instance claiming that the levelised cost of wind power is comparable to that of coal fired power. This might be so if lifetime outputs at average capacity are compared, but that overlooks the point . . . that the crucial task is to maintain the required level of output. Because there will be times when wind cannot contribute much and resort must be made to redundant plant, the cost of providing that plant needs to be somehow included in the cost of the wind sector. It is an essential part of the wind sector if that sector is to be able to make its contribution continually, just as an emergency generator must be understood as part of the total energy supply cost of a hospital (Lenzen, 2009 recognises this in passing). The dumping issue similarly indirectly increases total system capital cost because it means that some of the generating capacity built supplies energy that is wasted, or stored inefficiently, meaning again that plant constructed has to be greater than the amount that would meet demand if all its output could be used."

*backup. In other words, the price structure for wind and solar at low penetration cannot be extrapolated to high penetration* (this follows from the paradoxes of capacity credit for renewables as discussed in note 53). Overbuild of capacity, transmission, storage and backup will multiply the price many-fold. According to Barry Brook, a system relying on wind/solar, storage and "a dispersed electricity transmission network to channel power where it is needed, would be 25 to 40 times more expensive than an equivalent nuclear powered system and still less reliable."[60]

These are just some of the technological and logistical barriers to a global energy system powered by renewables. If this argument is correct, building such an energy system doesn't make sense even under an egalitarian, non-capitalist system whose goal is the production of a sustainable steady-state industrial society, due to expense, inefficiency (lack of reliable power), and space requirements. *Under capitalism, with exponential growth built in, it's a non-starter, but any democratic-socialist mass party with a chance to succeed must hash this out.* In brief, as Gwyneth Cravens has put it, we need (or so one might argue) nuclear power for two reasons: basepower and footprint.[61]

The nuclear alternative, combining Gen III and four nuclear power (with a niche role for wind and solar – perhaps providing peak power), would be much better for the environment and might even have a chance at getting us to James Hansen's goal of 350 parts-per-million (ppm) or lower.[62] Our view is hard for renewables proponents to

---

[60] Barry Brook, *Why vs Why* (Pantera Press, 2010), p. 11.

[61] See Stewart Brand, *Whole Earth Discipline: An Ecopragmatist Manifesto* (New York: Viking, 2009), pp. 80-81.

[62] The rationale for this number or lower is that according to Hansen the paleoclimate record suggests that only at this concentration can we be reasonably assured that climate tipping points cannot be reached. One tipping point that greatly concerns Hansen involves the collapse of the ice sheets. According to Hansen, in the past, once ice sheets begin to collapse, sea level can rise as rapidly as one meter every 25 years. We would note that Hansen, (*Storms of Our Grandchildren*, New York: Bloomsbury, 2009) predicted that, due to the complexities of the El Nino/La Nina cycle and the increase in GHGS, 2010 looked to be the hottest year in the instrumental record. He was correct, with 2010, depending on which record you look at, being the hottest or tied with 2005 and 1998. (For the evidence see <http://www.noaanews.noaa.gov/stories2011/20110112_globalstats.html>.) Gen III reactors refer to new reactors, such as the Westinghouse AP 1000, being built currently. They are Light Water Reactors and so make very inefficient use of energy resources. They are, however, quicker to build due to standardized design and, as we discuss later, extremely safe due to passive safety features of the design. Gen IV reactors have not been commercialized though several fast reactors have been and are in operation. One of them, the one primarily discussed here, the IFR or integral fast reactor, was operated at Argonne National Laboratories and was on the cusp of commercial deployment when the program was cancelled in the mid-1990s. For more on the IFR and the political context of its temporary demise, see Tom Blees, *Prescription for the Planet* (New York: Booksurge, 2008) and go to Blees' Science Council for Global Initiatives website where you can read more about the history

accept, in part, because they are trapped in the rhetoric around "small is beautiful" and visions of decentralized power, this despite the clear reality of renewables gigantic footprint, neither small, beautiful nor decentralized. This rhetoric in turn contributes to the demonizing of nuclear.[63]

Now, these are some of the problems with nuclear power according to most Greens: (1) nuclear power leads to weapons proliferation and invites terrorism (2) nuclear power is not renewable (peak uranium) (3) it's fundamentally unsafe due to its radioemissions throughout its life cycle from mining, milling and operation – leading to horrifying accidents like Chernobyl, Three Mile Island, and Fukushima – to decommissioning and waste disposal, (4) it's too expensive, and (5) it's not clean, due to the waste it produces and the GHG pollution it emits when the whole nuclear fuel cycle is accounted for.

None of these problems can be taken at face value. Below, we refute the basis for each of them.

Nuclear power plants are not like bomb factories, as the uranium and plutonium for power plants involves a much different enrichment process (even an ecosocialist like Minqi Li, whose ecological critique of capitalism has informed ours in many ways, claims that "plutonium is regarded as the most poisonous material on earth" which, "in an accident, could explode like an atomic bomb").[64] Bombs cannot be made in nuclear

---

and current prospects for the IFR from the scientists who worked on it at Argonne, and others (<http://www.thesciencecouncil.com/>). For LFTRs or Liquid Fluoride Thorium Reactors, go to the *Energy from Thorium* website: <http://energyfromthorium.com/>. You can find a great deal about both reactors at Barry Brook's web and blog, *Bravenewclimate*: <http://bravenewclimate.com/>. On baseload, intermediate and peak power, see <http://casafoodshed.org/archives/2010/07/21/electricity-base-load-intermediate-load-and-peak-load/>.

[63] Much new research is going toward the production of micro reactors (10 to 50 MW) like Toshiba's "nuclear battery," and others. See Stewart Brand, *Whole Earth Discipline* (New York: Viking, 2009), pp. 113-14. These reactors have the advantage of low capital costs and quick development time and they in fact exemplify best Amory Lovins' desires for distributed, decentralized energy. It also should be noted that greens often pit nuclear power against CHP or combined heat and power cogeneration. But nuclear, due to its reliability, can synch nicely with CHP.

[64] Minqi Li, *The Rise of China and the Demise of the Capitalist World Economy* (N.Y: Monthly Review), p. 150. Plutonium is nowhere near the most poisonous material on earth. As Bernard Cohen notes in his invaluable book, *The Nuclear Energy Option* (New York: Plenum, 1990), "[b]iological agents, like botulism toxin or anthrax spores, are many hundreds or thousands of times more toxic," with plutonium toxicity "similar to that of nerve gas, but given the choice of being in a room with equal quantities of plutonium dust and nerve gas, the latter would be infinitely more dangerous" as it "rapidly permeates the air" while plutonium would "be largely immobile" (pp. 248-49). Rip Anderson, discussed in Cravens' book cited below, has a plutonium paperweight on his desk. It's slightly warm to the touch and harmless as

power plants without the time-consuming transformation of the plant into a weapons factory. There are countries with nuclear power plants that do not have nuclear bombs and countries that have nuclear weapons (made in research reactors) that do not have nuclear power plants.

The genie is out of the bottle with respect to nuclear weapons technology, making nuclear weapons proliferation almost entirely a political problem. Shutting down civilian nuclear power plants would not put an end to existing or future nuclear weapons, and indeed would make disposing of already existing weaponized material even more difficult. In reality, nuclear power, both in its current forms and in Gen IV guise, has the capacity to reduce proliferation as it eats waste: for instance, the *megatons to megawatts program*, which downblends weaponized plutonium from the former Soviet Union, has been reducing the nuclear weapons stockpile by turning it into energy.[65] And Gen IV reactors can eat virtually all weaponized plutonium and uranium 235.

A future socialist state could deploy this technology to eliminate nuclear weapons altogether; the failure of current states to do this is a matter of politics, not something that follows from their reliance on nuclear energy for electricity. In addition, Gen IV reactors like the integral fast reactor (IFR) pyroprocess their own waste on site (it thus does not travel). The processing method is highly proliferation-resistant. But even current reactors are no plausible proliferation threat since spent fuel cannot be made into a workable bomb due to particulars of its isotopic composition.[66] In part, the proliferation argument depends upon guilt by association: Nuclear power plants and nuclear bombs both require nuclear fuel, though subject as we have noted to vastly different enrichment and composition particulars. But banning NPPs because they share similar ingredients with nuclear bombs is like banning any product made with steel on the grounds that deadly weapons, including nuclear bombs, require steel or banning petroleum products because petroleum is an ingredient in napalm.

It is understandable that in the wake of the serious and frightening ordeal at Fukushima-Daichi many readers may be skeptical of claims regarding the safety of

---

its alpha radiation cannot penetrate the skin. Some pacemakers are powered by plutonium, with no harm to the wearers.

[65] Brand, 2009, p. 108.

[66] See Gwyneth Cravens, *Power To Save the World* (New York: Vintage, 2007), pp. 49-50 <http://depletedcranium.com/why-you-cant-build-a-bomb-from-spent-fuel/>.

nuclear power plants. It must be acknowledged that the recent crisis revealed many actual failings, both in the design and implementation of the particular reactors in use at Fukushima, and especially regarding the management of the plants, by Tokyo Electric Power Company. However, it is also crucial to recognize that what we all recently witnessed was about as close to a worst case "nightmare scenario" as can be imagined concerning external events that could befall a NPP: the Fukushima plants were hit by both a 9.0 earthquake and a fourteen meter tsunami. Moreover, the type of plants that were involved, boiling water reactors designed in the sixties, with Mark One containments, were a particularly primitive form of Generation Two plant widely criticized, even before recent events. It is worth noting that Plant #6, the one Fukushima plant that received an upgrade preventing any damage to the diesel generators, did not encounter the serious problems experienced at the other plants. This underscores the importance and effectiveness of such upgrades, including those represented in later generations of NPPs. Finally, it is worth noting that, while the trauma caused by this accident was great, manifested largely in the evacuations, no one has died from radiation exposure and no one is likely to die.

Turning then, to safety, Gen IV reactors have the most impressive passive safety systems. These include metal fuel, whose constitution insures that neutron leakage due to thermal expansion in the fuel disrupts the required neutron density for the chain reaction to work, thus shutting the reaction down, preventing a criticality event (runaway chain reaction) and allowing for rapid heat dissipation – as "there is not much heat stored in the fuel pins that would need to be dissipated if the coolant stops flowing and the reaction shuts down." The result is that the reactor cannot meltdown. Then, as Barry Brook notes, "natural convection currents" in the salt carry heat away from the core without need of pumps. The molten salt moderator and coolant operate at atmospheric pressure, thus preventing any pressure explosions (including the hydrogen explosion problem associated with generation two water moderated reactors, the risk of which plagued the Fukushima-Daichi plants following their being hit by a massive tsunami this past March), and the molten salt in the secondary sodium loop is separated from the water receiving its heat by a double wall of stainless steel, which is non-reactive with sodium. The whole core is bathed in argon, also non-reactive with sodium, which keeps air (which reacts in a

volatile manner with sodium) out in the remote chance of a containment and/or steel core breech. In addition, the argon acts as a fire retardant, etc. Gen III reactors, currently in operation and under construction, contain passive safety features that rely on gravity. In the unlikely case the *redundant sets of emergency diesel generators* fail and a loss of coolant ensues, the plant shuts off and valves, held shut by the electricity, gradually release thousands of gallons of water to restore coolant.[67] These passive reservoirs can supply circulating water into the pressure vessel for 72 hours, time enough for human intervention, even in the event of a station blackout as we had in Fukushima. While the probability of core damage for reactors built in the 1970s is one in 20,000 reactor years, the PRA (probabilistic risk assessment) for the Gen III AP 1000 is one in 24 million reactors years, and the ESBWR is even better at one in 29 million reactor years. With IFRs, the PRA is once in 430,000,000 reactor years.[68] These impressive numbers show

[67] Here is a nice schematic of an IFR: <http://upload.wikimedia.org/wikipedia/commons/e/e7/Sfr.gif>.

[68] The numbers for 1970s reactors refer to LWRs, not Chernobyl-type reactors with graphite moderators, reactors which were never built in the U.S., and are no longer built anywhere. For PRA on AP 1000 and the IFR, see Brook, pp. 28-9. For the ESBWR, see <http://www.ne.doe.gov/np2010/pdfs/esbwr Overview.pdf>. The ESBWR contains passive cooling for the core, containment and drywells. The case being made here focuses on Gen III and IV nuclear power, but given that most of the current reactors are generation two, it should be noted when viewed in terms of its total operation, nuclear power plants are extremely safe, orders of magnitude safer than coal. See <http://nextbigfuture.com/2011/03/deaths-per-twh-by-energy-source.html>. And interestingly, at Fukushima, reactor six, a better design than reactors one through five, made it through the Tsunami. The difference was an air-tight building around the emergency generator, which saved the generator. As it turned out, a line was run from this generator to neighboring reactor five (which had lost its generator like the other four older reactors), saving it as well. For more, see <http://neinuclearnotes.blogspot.com/2011/04/major-modifications-and-upgrades-to-us.html>. These upgrades include features that would have prevented the hydrogen explosions. Anti-nuclear forces have tried hard to undermine this safety claim by insisting that people died at TMI, despite the official denials that anyone died. And these forces have continued to keep the Chernobyl accident in view, contesting the Chernobyl Forum assessment that between 4000 and 9000 can be expected to die premature deaths due to the radiation exposure. The recent New York Academy of Sciences document on Chernobyl put together by three authors has calculated that 985,000 will die premature deaths up to 2054. On the one hand, these claims require conspiracy on the part of the hundreds of scientists involved in investigating both events. On the other hand, and as a corollary, they require rejection of mainstream scientific opinion and acceptance of outliers. The situation is not that dissimilar to conspiracy theories around 9-11. This is indeed a knotty problem for the left, which is attracted to outlier views by virtue of its distrust of the status quo. And yet it accepts the IPCC consensus on climate change, as it should. This who-to-trust problem can only really be solved by learning how to assess the evidence. For a summary of the debate around TMI, see J. Samuel Walker's *Three Mile Island: A Nuclear Crisis in Historical Perspective* (Berkeley: Univ. of Cal. Press, 2004), especially the pages (pp. 234-36) on epidemiologist Steven Wing's challenge to the consensus, and the reply. Cravens covers much the same ground, in the event that the reader does not trust the account written by the historian of the NRC (Walker's book is at times scathingly critical of the NRC).

As far as the NYAS study, it is important to note that it, like the CF study, depends upon the validity of LNT, and thus assumptions around collective dose. The LNT (no safe dose) view assigns in one version of it .04 statistical deaths per sievert of radiation. Such a statistic does not discern any hormetic

effects accompanying low dose radiation (DNA repair mechanisms) despite massive scientific evidence of its existence and it does not distinguish between a high dose to one person and a tiny dose to many that would add up to the high dose. So it does not distinguish between one person getting a dose of 1 million millirem from one million people getting a dose of one millirem. Now: the difference between global average background radiation and U.S. average (620 mrem due to nuclear medicine and testing) is about 260 mrem. The way no safe dose works is that you can calculate the statistical deaths of this excess 260 mrems (which most people think saves many lives) by multiplying 300 million (pop. of U.S.) by .0026 (in Sieverts. One sievert equals 100,000 mrem). If you do the calculation, you get 780,000 Sieverts, which you then multiply by .04 to get 31,200 excess deaths annually – but these are fictional corpses. Think about the statistical deaths that can be produced by taking the difference between high and low radiation areas and multiplying by respective populations (to get deaths per 100,000 people per unit of time). Just take the difference between Denver and New Orleans or any low lying coastal city in the U.S. (5-600 mrem), multiply by your .04, multiply by 50 years and see lots of statistical deaths, deaths THAT IN REALITY NEVER APPEAR as Denver's cancer incidence is significantly lower than New Orleans, or low lying cities in the Southeast. The real trauma of all of these incidents has much to do with fear of radiation. This fear is massively overblown. As a comment on this fear, and on the NYAS study, we defer to George Monbiot's assessment of claims made by Helen Caldicott in their *Democracy Now* interview:

> "For the past 25 years, anti-nuclear campaigners have been racking up the figures for deaths and diseases caused by the Chernobyl disaster, and parading deformed babies like a mediaeval circus. They now claim that 985,000 people have been killed by Chernobyl, and that it will continue to slaughter people for generations to come. These claims are false. The UN Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) is the equivalent of the Intergovernmental Panel on Climate Change. Like the IPCC, it calls on the world's leading scientists to assess thousands of papers and produce an overview. Here is what it says about the impacts of Chernobyl. Of the workers who tried to contain the emergency at Chernobyl, 134 suffered acute radiation syndrome; 28 died soon afterwards. Nineteen others died later, but generally not from diseases associated with radiation(6). The remaining 87 have suffered other complications, included four cases of solid cancer and two of leukaemia. In the rest of the population, there have been 6,848 cases of thyroid cancer among young children, arising "almost entirely" from the Soviet Union's failure to prevent people from drinking milk contaminated with iodine 131(7).

Otherwise, 'there has been no persuasive evidence of any other health effect in the general population that can be attributed to radiationexposure' (p. 8). People living in the countries affected today 'need not live in fear of serious health consequences from the Chernobyl accident' (p. 9).

Caldicott told me [George Monbiot] that Unscear's work on Chernobyl is 'a total coverup' (p. 10). Though I have pressed her to explain, she has yet to produce a shred of evidence for this contention.

In a column last week, the Guardian's environment editor, John Vidal, angrily denounced my position on nuclear power (p. 11). On a visit to Ukraine in 2006, he saw "deformed and genetically mutated babies in the wards . . . adolescents with stunted growth and dwarf torsos; foetuses without thighs or fingers." What he did not see was evidence that these were linked to the Chernobyl disaster.

Professor Gerry Thomas, who worked on the health effects of Chernobyl for Unscear, tells me that there is "absolutely no evidence" for an increase in birth defects (p. 12). The National Academy paper which Dr. Caldicott urged me to read came to similar conclusions. It found that radiation-induced mutation in sperm and eggs is such a small risk "that it has not been detected in humans, even in thoroughly studied irradiated populations such as those of Hiroshima and Nagasaki" (p. 13). Like John Vidal and many others, Helen Caldicott pointed me to a book which claims that 985,000 people have died as a result of the disaster (p. 14). Translated from Russian and published by the Annals of the New York Academy of Sciences, this is the only document which looks scientific and appears to support the wild claims made by greens about Chernobyl.

A devastating review in the journal *Radiation Protection Dosimetry* points out that the book achieves its figure by the remarkable method of assuming that all increased deaths from a wide range of

that post-Fukushima, it would be the height of irrationality, in fact more guilt by association, to lump all reactors together. Getting rid of all reactors due to the flaws in old designs would be like stripping your house of insulation (or going without insulation in your new one), because some earlier generations of insulation contained asbestos.

Another prominent reason for opposing nuclear builds concerns uranium mining: uranium mining, according to the standard argument, requires enormous amounts of energy, so much as to render nuclear power in fact a dirty energy form when the entire production lifecycle is accounted for. Second, and most important to Green activists, uranium mining, they claim, is an especially toxic process, due to its radiation, which has harmed both indigenous peoples and victims of U.S. imperialism. Our first response to these concerns, as internationalists and socialists, is to acknowledge that the violence perpetrated against indigenous peoples and others across the world by the American empire is outrageous, and that it calls for exposure, solidarity, and struggle. Our second response, however, is that these very influential arguments are misleading, and furthermore, that they can be made moot when we consider how Gen IV power plants are so efficient that they would eliminate the need for mining and milling for one thousand years while they burn our existing depleted uranium stocks. But opponents of this argument might note that Gen IV is not yet commercially scalable, and they would be right. Reactors now under construction are, as noted, Gen III, which in our view have much to recommend them. But the point is that they require continued uranium mining so the uranium mining issue cannot be avoided. As we will show, the main radiation danger from uranium mines is radon gas, a danger that can be handled with proper

---

diseases – including many which have no known association with radiation – were caused by the accident (p. 15). There is no basis for this assumption, not least because screening in many countries improved dramatically after the disaster and, since 1986, there have been massive changes in the former eastern bloc. The study makes no attempt to correlate exposure to radiation with the incidence of disease (p. 16).

Its publication seems to have arisen from a confusion about whether the Annals was a book publisher or a scientific journal. The academy has given me this statement: "In no sense did Annals of the New York Academy of Sciences or the New York Academy of Sciences commission this work; nor by its publication do we intend to independently validate the claims made in the translation or in the original publications cited in the work. The translated volume has not been peer-reviewed by the New York Academy of Sciences, or by anyone else" (p. 17) <http://www.monbiot.com/2011/04/04/evidence-meltdown/>.

ventilation. As Bernard Cohen notes, removing uranium from the ground and using it to produce power prevents it from transforming into high levels of radon in mines with high concentrations of ore.[69]

What is true is that uranium mines in the Southwest, in which many Navajo and non-Navajo worked between the years 1950 and 1980, were poorly ventilated, and studies have definitively shown a higher incidence of cancer (almost exclusively lung) among these miners – once again not from uranium but from radon gas. In 1979, there was a large uranium tailings spill (a slurry dam break) at the Church Rock Mine that entered the Puerco River. No one died from the spill. But there are claims that many animals died and sickened and human beings, many Navajo, became ill. One "literature review" of the spill referenced this event, noting that it released levels of radiation greater than TMI (assuming TMI radioemissions were dangerous, an assumption with little support), second – at least before Fukushima – only to Chernobyl.[70] One indigenist activist, a very good man named Hunter Bear, has called uranium "the yellow rock that kills." Jim Green of *Friends of the Earth* Australia has cited racism against indigenous peoples as one reason to oppose nuclear power.[71]

These narratives around the poisoning of indigenous people dovetail closely with narratives about the dangers of depleted uranium, especially around its use in the Iraq war and others. Before we consider the arguments around uranium, let us note what should be obvious: that any socialist party-movement must work for the continued improvement of the health and safety of workers. But also that if, as this article suggests, renewables

---

[69] Bernard Cohen, *The Nuclear Energy Option* (New York: Plenum, 1990). This book is a must read and can be found online in its entirety at <http://www.phyast.pitt.edu/~blc/book/BOOK.html>. On radon gas, see Cohen's stunning ecological study of 1600 counties where he found that in the low-dose range for radon, the higher the radon concentration the lower the cancer incidence, a finding in dramatic and direct contradiction to the linear non-threshold hypothesis that governs radiation safety. According to this assumption, no radiation dose is safe. The expected slope from LNT based on dose ratio and cancer incidence was +7.3. The observed slope was, coincidentally enough, -7.3, a discrepancy of 20 standard deviations. Cohen's study was meant to refine LNT, not challenge it. See B.L Cohen, *Test of the Linear no Threshold theory of Radiation Carcinogenesis for Inhaled Radon Decay Products*, Health Physics, p. 68, 1995.

[70] Chris Shuey, *Uranium Exposure and Public Health In New Mexico and the Navajo Nation: A Literature Summary*, Southwest Research and Information Center <https://www.emnrd.state.nm.us/MMD/MARP/permits/documents/MK023ER_20081212_Marquez_NNELC-Acoma-Comments-AttachmentE-UExposureSummary.pdf>.

[71] <http://www.hunterbear.org/TALKING%20WEST.htm> and <http://themonthlyargument.wordpress.com/debate-videos/>. Scroll to Nov. 10 debate on nuclear power.

cannot provide reliable power to run an industrial society and nuclear power can, then these direct and indirect criticisms of nuclear power have to be carefully assessed. As socialists, we must determine whether the actual, as opposed to merely alleged, dangers of poisoning from uranium outweigh the dangers of foregoing clean industrial development, because the question of a mandatory powerdown (whether anti-capitalist or some sort of feudalism) hangs in the balance. The negative health and safety impacts of a mandatory powerdown should not be understated; indeed they could be absolutely catastrophic.

In what follows, we will argue the use of the anti-war argument and the indigenist argument against nuclear power plants (often coupled with fear-inducing references to TMI , Chernobyl and now Fukushima) depend centrally upon a litany of misinformation and confusion. As socialists we must stand against imperialist war and racist labor exploitation. However we must not let justifiable indignation about these horrors bleed into confused thinking about science and technology as such – with, in this instance, nuclear power becoming a synecdoche for the racism and imperialism caused by capitalism.

The fact is that epidemiological studies of the effects of uranium mining and milling on overall cancer incidence show no statistically significant relation. A recent, large study of cancer incidence and cancer deaths (with multiple references to other uranium mining and milling studies) in Cibola and Valencia counties in New Mexico by John Boice, Michael Mumma and William Blot concluded that there was no statistical evidence of adverse affect from environmental exposure associated with living near uranium mines and mills – with the exception of the aforementioned and widely acknowledged significantly increased incidence of lung cancer from miners working in poorly ventilated mines with elevated levels of radon. The authors note that this is consistent with what we know about uranium: that "it has not been classified as a human carcinogen because it is not very radioactive (it decays very slowly) and its chemical properties" are such that "when inhaled or ingested it is secreted quickly from thebody."[72] SMRs (standardized mortality ratios) for people residing in three census tracts 1982-2004

[72] John D. Boice, Jr., Michael T. Mumma and William J. Blot, "Cancer Incidence and Mortality in Populations Living Near Uranium Milling and Mining Operations in Grants, New Mexico, 1950-2004," *Radiation Research* 174 (2010), p. 634.

near the Grants Uranium Mill and Mine and for both counties was 1.04 total, with SIR (standardized incidence ratios) at .97 (a ratio of 1 indicates no effect). The running average of SIRs for the two counties was below the state as a whole for all cancers 1982-2004. Lung cancers were about on a par with the rest of the state, with the exception of two periods, the mid to late fifties to mid sixties and the 1980-90 period, when lung cancer incidence was higher due most likely to the effects of the poorly ventilated mines on mine workers.

According to the Centers for Disease Control, there is no evidence that either uranium or depleted uranium, even in high amounts, has ever caused a case of cancer in humans.[73] Gwyneth Cravens notes that "[s]omeone smoking 3 packs of cigarettes a day [for one year] would get about the same radiation dose to the lung as inhaling a pound of uranium in a year."[74] (While smoking is, of course, a dangerous activity, its carcinogenic effects stem from its chemical properties, not its radioactivity.) Like most substances, uranium is chemically toxic to the kidneys and liver if ingested in great amounts—its chemical toxicity approximately that of lead, 10 times weaker than mercury. It is weakly radiotoxic if aerosolized and inhaled in great quantities, which of course is what can happen with DU munitions. Contrary to what many assume, radioactive elements with long half lives (U 238 has a half life of 4.5 billion years) *are less radioactive*, not more. The dangerous radiotoxins from nuclear power plants have short half lives and significant body burdens, meaning their isotopes do damage to human tissue, though how much depends crucially upon the dose, as there is *no evidence* that doses in the range associated with background radiation (which ranges from 100 to 20,000 millirem/yr and even higher across the planet, with an average of 360 mr or 3.6 mSv in the U.S.) are correlated with (much less cause) increased cancer incidence.[75] If these studies are correct, this does not

[73] Cravens, 2007, p. 35.
[74] Cravens, p. 35.
[75] This fact carries key importance and suggests that the LNT or Linear No Threshold Theory is false. In fact, there is no epidemiological evidence for the view that no dose of radiation is safe and that cancer incidence increases linearly with increased dose. Leo Gomez notes that "[e]ven though there are tons of data suggesting that there is a practical 'threshold' dose, below which radiation damage is either zero, or is repaired, or is handled in some other way, old perspectives die hard." He notes that "there is no evidence of human cancers from exposures below 10,000 millirem" (Cravens, 2007, p. 123). LNT is used as a standard in radiation protection because it is much simpler to employ than one based on the contrary view that "low doses," doses below a certain threshold, are not harmful or in fact beneficial. This contrary view

let the corporation off the hook for the uranium spill (much less energy corporations in general) and there is evidence that individuals have been harmed by the effects of mining and milling. Families were allowed or even encouraged to build *hogans* out of mine tailings, and the individual stories of cancer are often very compelling. But it's important to be clear about the causes. The main cause was that the houses were built out of the tailings. The poisons producing the cancer were elevated radon levels (perhaps elevated radium levels), not uranium – which had by then been removed.

One of the great problems with Bear's poetic reference to uranium as the "yellow rock that kills" is that it discourages careful investigation into the real dangers of both radiation and energy alternatives. Consequently, it potentially displaces our attention from the demonstrable killer, coal, the black and brown rocks *that do kill*, especially in light of our claim that renewable energy is parasitic for baseload on the very energy forms it claims to displace. Ironically, with all the attention to uranium and indigenous peoples, coal mining has received less critical attention in terms of its impact on indigenous peoples. And yet, "New Mexico's oil extraction industry as well as power plants on or near Navajo land were burning millions of tons of soft brown coal extracted in part by Native Americans from an open pit mine." Meanwhile, according to Cravens, the Dine tribe, having banned uranium mining, are being courted by "an energy corporation to allow the construction of a huge new coal fired power plant."[76] Yet coal, according to James Hansen, is the primary threat to the planet due to its GHG emissions. In addition, coal pollution causes 24,000 premature deaths per year in the U.S., with fossil fuels as a whole being responsible for many of the 2 million annual premature deaths world-wide from air pollution. And, in yet another irony, coal emits in its fly ash toxic metals like lead, mercury and cadmium, in addition to uranium, thorium and radon, that exceed uranium tailings emissions. Mining is indeed a dirty business, but presently under capitalism it is unavoidable – not just for fossil fuels and nuclear *but for solar and*

---

is called hormesis. A recent book discussing the evidence both against LNT and for hormesis is Charles Sanders, *Radiation Hormesis and the Linear No-Threshold Assumption* (Berlin: Springer/Verlag, 2010).

[76] Cravens, 2007, p. 59. On air pollution deaths, see <http://www.who.int/mediacentre/factsheets/fs313/en/index.html>.

*wind, whose total mining requirements just for concrete and steel are comparable to nuclear.*[77]

In a cleaner and more decent world, depleted uranium would be run through IFRs to produce energy; in our world, it is used infamously to make pyrophoric munitions rounds that have greater power to penetrate steel and concrete. There are countless narratives of medical abnormalities consequent upon bombings that involve large amounts of DU. But DU, as noted above, is not in fact a radiotoxic worry unless it is aerosolized and inhaled in sufficient quantity. Uranium has a very low specific activity, 12,400 becquerels (to put this in perspective, a gram of radium emits *3.7*10 exp.10* – or 37 billion – becquerels, or disintegrations per second). Enough uranium aerosol breathed in, even though it is a very weak radiotoxin, could cause a cancer down the road (though recall the CDC finding above). Uranium is an alpha emitter, and since alpha particles cannot penetrate the skin and do not travel far, only several feet, there is little reason for worry unless, of course, it's inhaled, in which case the emissions rates will be very low but alpha particles will deposit their energy in the lung and could do damage.[78] However, because the public is not well informed about how radiation works, articles suggesting the dangers of DU often feed irrational fears about radiation.

Here's a case in point. A *Christian Science Monitor* story on the use of DU in the Iraq war reported that a Pentagon doctor stated that DU was not highly radiotoxic but could be a problematic chemical toxin, especially to the kidney, if ingested in great enough quantities. The reporter then noted, however, that DU shells in the area emitted 260 to 270 mrads/hour etc., that a pile of radioactive dust produced 9800 emissions per minute, 300 times background rate, and followed this by noting that the legal limit for ionizing man-made radiation was 100 millirem/year.[79] Metrics for measuring radiation

[77] A typical coal plant concentrates two tons of uranium and five tons of thorium in its fly ash. With IFRs and LFTRs, this could be burned for energy instead of thrown into the atmosphere. On mining requirements, see Brook, 2010, p. 23 and his materials studies at <http://www.bravenewclimate.com>. Wind and solar power, scaled, would require massive mining of rare earth metals. On one such mine in China and its affiliated toxicity, see <http://www.dailymail.co.uk/home/moslive/article-1350811/In-China-true-cost-Britains-clean-green-wind-power-experiment-Pollution-disastrous-scale.html>.

[78] Though the dose rate particulars are all important due to possible hormetic effects.

[79] Scott Peterson, *Remains of Toxic Bullets Litter Iraq*, *Christian Science Monitor*, May 15, 2003 <http://www.csmonitor.com/2003/0515/p01s02-woiq.html>. This 100 mrem/yr limit has little justification, given that radiation naturally varies on the planet between 100 mrem and 20,000 mrem/yr and, once again, there is no evidence of a higher cancer incidence because of variations in natural background radiation.

are confusing, and the *CSM* reporter mixes metrics without clarification. Bequerels (disintegrations or emissions per second) measure the activity of the source whereas rads and rems measure dose rate and effective dose equivalent rate. These are not two ways of saying the same thing since the effect of the activity depends upon both what is being emitted (gamma rays, beta rays, alpha particles, or neutrons) and how the tissues respond chemically depending on how the radiation is absorbed.

At any rate, the *CSM* story implies that the doctor is lying. After all, how can uranium's radiotoxicity not be a worry when its specific activity is so much greater than background and what is legally allowed? It is useful for gaining perspective to know that bananas emit about 14 becquerels per banana and that 3.6 pounds of bananas emit about 200 becquerels (disintegrations per second). That seemingly scary radioactive dust that registers as 9836 emissions per minute on a geiger counter comes to about 163 events per second (becquerels). It may be 300 times background *at the point of contact*, *but that still makes the dust less radioactive than our bananas at the point of contact*. And it registers as virtually nothing relative to background if you move a short distance away from the source as dose rate is related to distance by the inverse square law. For our radioactive shell, this would mean that 260 mrads/hr reduces to 2.6 mrads/hr with 10 feet of distance. One-hundred feet away, the rate falls to .026 mrads/hr. If we multiply that by 365 days in a year to get millirad/yr, the answer comes to 227 mrads/yr.[80]

But even this number is misleading for several reasons. First, mrads are often not a proxy for mrems. For example, in a NRC study of cookware containing DU (Fiestaware), a 10-inch diameter plate with 20 percent by weight uranium content at contact has a beta dose rate of 24 mrad/hr but an effective dose equivalent rate of .0024 mrem/hr. Since beta emissions only penetrate the skin, moving three feet away greatly reduces the mrad/hr while slightly decreasing (due to betas accessing more skin surface area) mrem/hr – to .0021 mrem/hr. But at six feet distance, the dre (dose rate equivalent)

---

The number gets its "justification" from LNT, which, as we noted, itself is without support. The rad stands for radiation absorbed dose. For an analogy, think of the Roentgen as the sun's intensity. The rad as amount of sunlight absorbed by the skin and the rem (roentgen equivalent man) measuring the *biological effect* of sunlight exposure. Put another way, the rem is the rad times a Q or quality factor, which measures the effectiveness of certain types of radiation at producing damage in a single cell hit with such radiation, and an N factor, which accounts for differential tissue sensitivity.

[80] On the inverse square law and radiation, see <http://www.ndt-ed.org/GeneralResources/Formula/RTFormula/InverseSquare/InverseSquareLaw.htm>.

is .00045 mrem/hr. Gamma rays are as follows for the same plate: .00065 mrem/hr at one foot; .000077 mrem/hr at 3 feet, and .000019 mrem/hr at 6 feet.[81]

Thus, the *CSM* reporter has made several very serious errors, implicitly conflating in the lay reader's mind becquerels with millirads, and failing to distinguish radioactivity at point of contact from both radioactivity at a specific distance and average radioactivity in a region (260 mrad/hr point of contact and the entirely different number, 100 mrem/yr average). Finally, the writer does not distinguish between mrads and mrems, a distinction which, in fact, matters if we wish to understand the effect of DU radiotoxicity on human tissue. That a DU shell emits radiation far exceeding background puts the shell in the company of salad oil or potassium chloride, which both measure way above natural background radiation.[82] We should add that the kinds of errors found in this *CSM* story are quite typical of mainstream and even green-left discourse concerning radiation.

When fashioned into munitions by imperialists, DU kills people almost entirely because of its pyrophoric and penetrating properties – not its radiotoxicity. However, DU in and of itself can be a life-saving energy source. To oppose nuclear power, especially Gen IV, which would get rid of our DU stocks, turning them into energy-producing fuel, because of its association with DU is like opposing steel production because weapons are made from steel.

**Dealing with Waste and Cost**

On the nuclear waste question generally, the best way to handle the waste is to burn it in IFRs (integral fast reactor) and LFTRs (liquid floride thorium reactor). Both reactors reduce annual waste from 27 tons (for LWRs) to one ton of fission products, which would be vitrified in borosilicate glass and placed in lead and steel lined casks for deep storage (in places like New Mexico's Waste Isolation Pilot Project, and there are other alternatives). This waste is highly radioactive but decays to background levels in no more than 300 years and would be safe well before that, given the vitrification process, which both immobilizes the waste and renders it insoluble in water for 1000 years, not to mention the other barriers. The longer-lived waste we have now should be

[81] <http://www.orau.org/ptp/collection/consumer products/fiesta.htm>.
[82] Cravens, 2007, p. 77. Normal air contains 2 picocuries/liter (a picocurie is one-trillionth of a curie). Whisky 1200 pCi/Liter; salad oil, 4900 pCi/Liter.

stored onsite in wet and dry storage while, as in Canada, a "near term" (1 to 175 years) "centralized shallow underground facility is built, designed for easy retrieval."[83] Nuclear waste loses its radiotoxicity over time and because of its great energy density, even with LWRs, its waste, contrary to our green common sense, takes up relatively little space. As William Tucker notes, the nuclear waste from France's entire nuclear program from the beginning is contained in one very large room the size of a "large basketball gymnasium."[84] As Brand notes, James Lovelock and his wife stood "on all the French high-level nuclear waste at La Hague in Normandy" "from 40 years of energy production" (buried a few meters underground in that gymnasium), and received "0.25 microsieverts an hour, about 20 times less than you'd find in any long distance passenger plane."[85]

Before looking more closely into nuclear power, we thought peak uranium might be nuclear's Achilles heel, other issues aside. It is tempting and depressing to think that just as there is peak oil now or around the corner, so there is a peak metals problem. Admittedly, the arguments supporting peak metals are similar to those arguments supporting peak oil, and given the strength of the latter arguments, we might reasonably think the former are equally strong. One look at a U.S.G.S. chart on mineral reserves is enough, it appears, to seal the case not only against nuclear power, but for radical powerdown.[86] As an extension of this argument, it is repeatedly claimed in anti-nuclear discourse that as uranium supplies become exhausted, the life cycle or EROEI (energy returned on energy invested) costs will skyrocket along with carbon emissions required to get the rare uranium.

The main reply here is that Gen IV reactors like IFRs and some models of LFTRs, as just noted, burn decommissioned weaponized plutonium and uranium, can turn depleted uranium into burnable plutonium, and eat spent fuel from light water reactors (LWRs). The efficiencies are so great – between 100 and 180x more efficient than current reactors, (as measured in terms of units of energy generated from each unit of

[83] The Canadian strategy, which includes the participation of Canada's "First Nations," is discussed in Stewart Brand, *Whole Earth Discipline* (New York: Viking, 2009), p. 79. Later, we will return to this text in order to show that serious distortion of the facts occurs on both sides of this debate, though it occurs with far greater frequency and effect on the anti-nuclear side.
[84] William Tucker, *Terrestrial Energy* (Washington: Bartleby Press, 2008), pp. 376-77.
[85] Brand, 2009, p. 106.
[86] Li, 2008, p. 164.

fuel) themselves one to three million times more efficient than coal, due to uranium's energy density – that we could stop uranium mining and milling, again as noted above, for one thousand years. Tom Blees notes that by the time current U.S. nuclear reactors reach "the end of their lifecycles" (within the next 20 years), we "could immediately shut down every uranium mine on the planet and run only IFRs for hundreds of years, worldwide." As Blees shows in an energy chart derived from the IEA, the energy content (useable energy) of the U.S. DU stockpile alone amounts to 2124 TW years of energy – the world currently consumes about 13 TW of fossil fuel energy per year. So the energy embodied in U.S. DU stockpiles is the equivalent of 163 years of current fossil fuel energy.[87]

In terms of LFTR Gen IV reactors, the thorium fuel goes into the reactor in raw state, *without enrichment,* yet another savings. With 1 ton of thorium fuel per GW year of energy, planned properly, enough energy for a city of 1 million could be generated with *only 5.7 lbs of thorium per day added*.[88] Further, the U.S. government has stockpiled in Nevada, over 3000 tons of refined thorium. This thorium could power the entire United States for 30 years![89]

But setting aside Gen IV, uranium is plentiful in the earth's crust and in the oceans. The Japanese have the technology to extract uranium from sea water at $300 a kilo (the price is $130 now) and as Brook notes, "the world's rivers naturally erode 30,000 tonnes of uranium from their channels and flush it into the ocean."[90] And we have not mentioned using thorium as fuel, an element four times more abundant in the earth's crust than uranium and the fuel of choice for LFTRs. So given how cheap uranium fuel is, even as the uranium price increases, there is reason to believe that new reserves will be found, unlike the case with peak oil. Because uranium is a relatively plentiful mineral and minerals are part of a several billion year old crust, the analogy with peak oil may not be a very good one. On the lifecycle cost issue, while Gen IV solves this problem completely in favor of nuclear, meta studies of nuclear Energy Returned On Energy

[87] Blees, 2008, p. 265.
[88] <http://energyfromthorium.com/essay3rs/>.
[89] <https://netfiles.uiuc.edu/mragheb/www/NPRE 402 ME 405 Nuclear Power Engineering/Thorium Resources in Rare Earth Elements.pdf>.
[90] Brook, 2010, p. 17.

Invested (EROEI) are comparable with wind's EROEI (as we suggest above, a meaningless number with renewables) or better – anti-nuclear proponents cite one outlier study repeatedly, a study which depends entirely on the premise of peak uranium. Second, if we were to bootstrap our energy system primarily with nuclear, the energy we use to get the uranium, should we have to get it, would come from nuclear, not fossil fuels.[91]

The last objection we will consider is cost. Nuclear power is too expensive, critics say, with Amory Lovins noting famously that nuclear is dying "of an incurable attack of market forces."[92] Let us say this about cost. With subsidies, the cost of wind and solar can come down *as long as they rely on fossil fuel backup.* In other words, as we noted above and it is worth repeating here, the price structure for wind and solar at low penetration cannot be extrapolated to high penetration. Overbuild of capacity, transmission, storage and backup will multiply the price many-fold. As for nuclear, anti-nuclear Greens and others cherry pick inefficient nuclear builds, ignoring efficient ones while focusing only on seemingly efficient renewables builds and ignoring inefficient ones.[93]

Whether this analysis of energy is correct or not, it is imperative that our proposal for a democratic-socialist party include a serious ongoing discussion of the energy transition. Questions of technology cannot be deferred until "after the revolution." Goals

---

[91] The outlier study is by Jan Willem Storm Van Leuwen and Phillip Smith, "Can Nuclear Power Provide Energy for the Future; Would it Solve the CO2 emission problem?" <http://beheer.opvit.rug.nl/deenen/Nuclear_Sustainability_rev3.doc>, October 12, 2004. Much different analyses can be found in an IAEA study where wind and nuclear come out far ahead of competitors (Life Cycle Analysis numbers of 48 and 21 g/kwh respectively) and a technical review published 2007 in the scientific journal *Energy* that wind produced 8 to 30 tonnes of CO2/GWH, nuclear 3 to 24 t/GWH, solar 43 to 73 t/GWH, with the other forms astronomically higher. Even so, as we have suggested above, these numbers are misleading since at high penetration, wind and solar require gas backup and storage requirements making the project infeasible. Currently, the two highly industrialized countries with the cleanest grids are France (80-85% nuclear) and Sweden (46% nuclear, 46% hydro), both countries five to seven times cleaner than Denmark and Germany, both having gone in heavy for wind and solar. See David Mackay, *Sustainable Energy: Without the Hot Air*; Gwyneth Cravens, *Power To Save the World* (New York: Vintage, 2007), p. 13. Barry Brook and Ian Lowe, *Why vs. Why* (Seaforth, Aus: Pantera Press, 2010), p. 23-4. For a metastudy gathering together nine independent LCAs, see <http://lightbucket.wordpress.com/2008/02/20/carbon-emissions-from-electricity-generation-the-numbers/>.

[92] Brand, 2009, p. 98.

[93] The best site for information on issues of cost and waste along with the other elements of the anti-nuclear narrative is climate scientist Barry Brook's Brave New Climate website, as well as information available at the Science Council on Global Initiatives website. For the double standards involved, see <http://bravenewclimate.com/2010/01/17/hypocrisies-of-the-antis/>. And for an excellent brief summary of the cost question, see Brook, pp. 38-43.

to reduce GHGs have to be connected to plausible plans, plans whose numbers make sense. There must be commitment on both sides of the energy debate – renewables only vs. nuclear/renewables mix – to allow the best arguments on both sides to emerge. Mere words, no matter how green, are of no value without *a scientifically valid plan for energy transition*.[94] This is frankly not going to be easy given the sorts of distortions that have characterized discussions in the past, but it is absolutely necessary, especially after Fukushima, since a move to ban nuclear now, unless coupled with a radical mandatory powerdown, will almost surely mean more natural gas, in the U.S. and more coal, abroad.

We have examined some of the distortion in the arguments around proliferation and FUD (Fear, Uncertainty, and Doubt) around uranium (where uranium ore has literally been demonized). In closing this section, before moving on to consider the politics of food in the current crisis, we will offer several prominent examples of such FUD-mongering, though, in truth, an entire book needs to be written on the Green distortion of the nuclear option. In our view, most of the distortion around nuclear power has come from the renewables-only side (and not the nuclear industry, which, like all capitalist industry, still cannot be trusted), which is to say almost the entire Green left. Readers should understand that the position we offer here is virtually unrepresented on the Green left, even with James Hansen's advocacy of Gen IV nuclear power (Hansen being a hero to the movement). This uniformity of opinion on technological matters has led to a Leftist discourse on energy shaped by demonization – through guilt by association about nuclear – and fantasy about all renewables solutions to the crisis. It should be made clear that guilt-by-association has its basis not just in the association of nuclear power with the military-industrial complex but also in the fact that many who are pro-nuclear are climate denialists. Certainly, it should also be made clear, due to the passions surrounding this question, that the pronuclear environmentalists *are perfectly capable of their own*

[94] Recently, Bolivia hosted a conference designed to be an alternative to the status quo. The conference adopted the position that even 350 parts per million of GHGs is too much, that to keep the planet from tipping points, GHGs needed to be lower. But there was no concrete energy plan to get there, and many of those rhetorically radical reject nuclear power, by far the most efficient way to get cheap, clean, reliable electricity. Calls to respect Mother Earth mean close to nothing without a concrete way to reduce GHGs without decimating the economy (and we do not mean capitalist economies). Bolivian president Evo Morales may be committed to 325 GHGs, but he is not about to dismantle, without an alternative, the jobs and infrastructure connected to natural gas production.

*distortions.*[95]

The first example concerns the World Wildlife Fund. We noted above (note 83) that France and Sweden have the cleanest electrical grids in Europe. But in one of their environmental report cards on the G-8, the World Wildlife Fund (WWF) managed to quadruple France's emissions because "WWF does not consider nuclear power to be a viable policy option." So the WWF adjusted its emissions numbers "as if the generation of electricity from nuclear power had produced 350 gCO2/kWh (emission factor for natural gas)" instead of, in the case of France, the real number of 86 g/kWh.[96]

A second example comes from Mark Jacobson, who in the influential article referenced above asserts that nuclear power would produce 25 times the CO2 of wind. The source of this claim comes from two papers prepared for peer review where Jacobson simply assumes that there will be a nuclear missile exchange between nations every 30 years and he factors the hypothetical emissions from these events into his analysis of emissions from civilian nuclear power plants.[97] The scandalous absurdity of such a method should be self-evident. But of course it's not. So we will assume it needs to be said that following such reasoning, in evaluating CO2 emissions from wind, we would have to include CO2 emissions from drought-related fires fanned by thousands of wind turbines into uncontrollable wild fires reaching dry forest, etc. In fact, this latter scenario is a lot more plausible and logical than Jacobson's given the well-known material differences in the production process for nuclear power compared to bomb making. Interestingly, it is more guilt by association. Barry Brook has argued that worst-case scenario thinking might lead one to imagine a natural gas fire breaking out (this is pretty

[95] In Stewart Brand's discussion of Canada's nuclear waste policy, he at one point cites a lengthy document from their NWMO (Nuclear Waste Management Organization): "The report does note that 'during the 175 year period, the overall radioactivity of used fuel drops to one-billionth of the level when it was removed from the reactors'" (Brand, 2009, p. 79). The writer of this section queried several radiation experts about this claim and they did not think the one-billionth figure was plausible, so the writer looked up the online reference and here's what he found: "During a 175-year period, the overall radioactivity of used fuel drops to about one-hundred thousandth of the level it was when removed from the reactors, but still poses a significant long-term hazard." Now, whether this is indeed a "significant long-term hazard" requires context and comparison but what is sure is that Brand has so seriously misquoted his source, that it is hard to view this as just an accident, given that he substitutes a number 10,000 times greater than that quoted and leaves out a qualifying clause! This is not just a calculation error (however important they are to our interpretation of these questions, calculation errors are very easy to make). It could be intentional or just really sloppy due to confused note keeping, etc.

[96] <http://energyfromthorium.com/forum/viewtopic.php?p=20025&sid=92e67b0768c1aeb1e102180dbb05c9a8>.

[97] <http://theenergycollective.com/charlesbarton/49358/jacobson-beyond-cherry-picking>.

common in fact) and spreading to forest and chemical factory. Given that renewables are parasitic on natural gas, should we include this fantasy into our renewables calculus? Certainly not. Likewise with Jacobson's calculations.

The final example we cite comes from famed left-wing environmentalist Jeffrey St. Clair. In an article called *Pools of Fire* that made number 4 of Project Censored, St. Clair claimed to reveal that the spent fuel pools at the Shearon Harris plant in North Carolina were so dangerous that "The Nuclear Regulatory Commission (NRC) has estimated that there is a 1:100 chance of pool fire happening under the best of scenarios."[98] What the NRC report actually said was that the probability of a spent fuel pool fire at the Shearon Harris plant is 2 in 10 million reactor years per year or less (2.78 E-8 per year). St. Clair appears to be referring to the NRC staff estimate "of about one percent that a severe reactor accident with containment failure would lead to a SFP accident." But the chance of a severe reactor accident is deemed "remote and speculative" by the report.[99] Thus St. Clair misrepresents 1% of a remote hypothetical possibility as a solid 1%. His claim that "The Nuclear Regulatory Commission (NRC) has estimated that there is a 1:100 chance of a pool fire happening under the best of scenarios" appears to be fraudulence of a very high order. By virtue of making it so high up the list of Project Censored, however, many Leftists will take such a report as the truth, and will view all things pro-nuclear as "the big lie." Yet as we can see here, it is this influential article, written by a respected environmentalist, which is pushing the big lie (or most charitably mind blowing energy illiteracy). From here, it is easy to see how discussion could (and does) degenerate into a hall of mirrors charge and counter charge, all of which will be a real challenge for the Left to overcome given the urgency of clear thinking on energy matters.

The bottom line is that the defense of nuclear power, given the power of critiques of an all-renewables energy plan (from anti nuclear as well as pro nuclear sources), must not be demonized. The individuals – on the Left and otherwise – who defend nuclear power as the only clean energy technology that can provide base power must not be reduced to corporate stooges of the nuclear industry any more than proponents of renewable energy should be reduced to corporate stooges of the fossil fuel industry. We need, especially

[98] <http://www.projectcensored.org/top-stories/articles/4-nuclear-waste-pools-in-north-carolina/>.
[99] <http://www.nrc.gov/reading-rm/doc-collections/commission/secys/2008/secy2008-0036/2008-0036scy.pdf>.

after Fukushima, a thorough discussion of a frightening and complex problem, not moral posturing and emotional blackmail. It is simply absurd to call climate scientists like Barry Brook and James Hansen or fine science journalists like George Monbiot and Mark Lynas corporate stooges. They all started out as proponents of "techno solar," but after scrutinizing both the claims for all renewables and their own deficient understanding of nuclear power, changed their minds. As Hansen has noted, "[t]he antinuke advocates are so certain of their righteousness that they would eliminate the availability of an alternative to fossil fuels, should efficiency and renewables prove inadequate to provide all electricity."[100] One consequence of this Left-liberal dogma is that their "energy policy" is completely incoherent, as they are opposed to coal, nuclear and natural gas (especially "fracking," a key, however environmentally dangerous, technique for getting at the ample U.S. supply) even as gas must back up renewables.

Before we move on to the discussion of sustainable agriculture, we would here close the energy/environment discussion on technology by returning to a key point of political economy. In the light of Fukushima, in the unlikely event that the U.S. moves rapidly toward a nuclear build (in fact, it looks like they will build more gas plants, marketing it as the green partner to wind and solar), and to Gen IV, the DU stockpile would under imperialism become a new source of geopolitical advantage, once again belying the view that energy independence without getting rid of capitalism can be the solution to resource wars, whether over fossil fuels, uranium and thorium deposits, or rare earth metals.[101]

Furthermore, as Minqi Li has noted, even if many energy efficient technologies (along with IFRs and LFTRs we would add) "become available right away, their application will be delayed by the inherent obstacles to technological diffusion under the

[100] These men are not "converts" to equal degrees. Monbiot, who does not appear to know about Gen IV nuclear, is a reluctant convert. In the light of his change of mind, he has become extremely distrustful of the green position on nuclear power. See <http://www.monbiot.com/2011/04/04/evidence-meltdown/> and associated articles. These are a must read, by the way. See also Chris Mooney, <http://blogs.discovermagazine.com/intersection/2011/04/05/the-left-abusing-nuclear-science-monbiot-vs-caldicott/>. For Lynas' response to Fukushima and a sample of demonizing responses, see <http://www.marklynas.org/2011/03/the-dangers-of-nuclear-power-in-light-of-fukushima/>.

[101] On U.S. dependence on strategic mineral imports, see Robert Bryce, *Gusher of Lies: The Dangerous Delusions of Energy Independence* (New York: Public Affairs, 2008), pp. 293-97.

capitalist system."[102] Any "energy democracy" would have to overcome this intrinsic property of capitalism, which is part of the general problem of coordination under the anarchy of capitalist production. Tom Blees, whose work has brought Gen IV technologies to the attention of major energy analysts and climate scientists (like Brook and Hansen), is currently attempting to gather world leaders to buy in to his plan to form an internationalized energy system he calls GREAT, for Global Rescue Energy Alliance Trust. While we hope he succeeds, our Marxism tells us that his plan for an energy democracy is itself incompatible with the capitalist system as we know it. Blees is banking on the threat of climate change to pull us all together and trump ruling-class interests. While we need to take his technological solutions very seriously, it is hard for us to take his "independence day" scenario as more than fantasy. The bottom line is that for Marxists who advocate the building of a mass political party (and this is where we join hands once again with most eco-socialists), class interests trump common interests. For Tom Blees, "solving several global crises in one fell swoop will require entirely new levels of international . . . cooperation":

> The old perspectives of rivalry and competition – often to the point of war – must be replaced with a more productive view that embraces the well being of humanity at large as the defining principle of international relations.[103]

The problem is that these old perspectives are not just perspectives, or paradigms. They are structural features built into capitalism. Global elites cannot smile-and-handshake their way out of intercapitalist competition. On the other hand, the anti-nuclear perspective we challenge here is, in fact, merely a paradigm of ideas, not a structural feature of capitalism, and thus, we hope, open to discussion among those who are political allies, not structural antagonists. Nothing less than the viability of our eco-socialist project and the future of a sustainable humanity depends on it.[104]

---

[102] Minqi Li, "Climate Change, the Limits to Growth and the Imperative for Socialism," *Monthly Review*, July/August, 2008, p. 61.
[103] Blees, 2008, p. 295.
[104] See Mark Lynas' recent *L.A. Times* piece where he argues, as we do here, that the practical impossibility of an all renewables replacement of nuclear power will accelerate the production of greenhouse gases even

That said, we, along with critics of the nuclear industry (and the correctness of some criticisms are certainly reinforced by the events in Japan), do not think private industry should be in charge of energy policy, and here again we agree with Blees.[105] But nationalization of industry by itself will not eliminate the contradictions of capitalism and could exacerbate them. We will return to this subject in the conclusion.

**(3) The Decommodification of Food Production and the Limits of Localism**

The question of food provisioning must be prominent in any discussion of a socialist transition and the role of a democratic-socialist movement or party within that transition. Globally, price-crisis-wracked food markets in 2007 and 2008, driving millions more into hunger and demonstrating the extent to which corporate control, financial speculation, and the needs of transnational investors have come to take precedence over the needs of the poor, vulnerable, and socially marginal. Included among these are millions of small and peasant farmers, who have seen conditions for securing a meaningful and dignified livelihood from agricultural production undermined by a host of technological and policy changes, all directed at intensifying production, liberalizing global trade, and commercializing all forms of food provisioning. While the worst of this crisis was over by late 2008 and early 2009, global food price indexes were again spiking to historically unprecedented levels in late 2010 and early 2011. As Albritton argues, the set of relations and processes that provide us all with food (which he calls the food regime) is "basic to the advancement of global human flourishing," but its steady and pervasive capitalization has meant a profound neglect of the ecological conditions and social needs that accompany and result from activities as foundational as growing, distributing, and eating food.[106]

---

as we approach climate tipping points. See <http://www.latimes.com/news/opinion/commentary/la-oe-lynas-nukes-20110410,0,3424093.story>.

It should be noted that Lynas's figures here, derived from an erroneous Breakthrough Institute article (since corrected), are way off, but this mistake is separate from his claims about the connection between tipping points and the elimination of nuclear power.

[105] See Blees, pp. 255-60, where he is in accord on safety grounds with the anti-nuclear lobbying group, Union of Concerned Scientists. Gregory Meyerson wishes to thank both Bill Sacks and David Walters for their really helpful input on this section.

[106] Robert Albritton, *Let Them Eat Junk: How Capitalism Creates Hunger and Obesity* (New York: Pluto Press, 2009), p. 6.

Indeed, it is impossible to disconnect the crisis of food provisioning, and the more general and quotidian deterioration of social life that widespread hunger, poverty, and vulnerability represent and exacerbate, from the structural crisis of capitalism identified above. This includes the environmental crisis arising from global climate change and continued overreliance on fossil fuels, as well as the financial and economic shocks that disrupt or destroy the capacities of individuals, households, communities, and states to purchase or grow food in volatile and fluctuating market conditions. Reactions to food crises past often rested on arguments about overpopulation and the need to control population in order to bring demand in line with limited food supplies. While it is important to understand the limits of productive capacities relative to demand, such an approach ignores the roots of concurrent crises in energy, food, and financial markets, and does little to address structural deficiencies that limit political and social control of land, fuel, and food systems to Transnational Corporations, unaccountable international institutions such as the WTO, and state authorities whose primary duty is to encourage production for export.[107]

The problem, then, is not food production per se. While increases in agricultural productivity are vital to offset and reverse land degradation, meet rising demand and growing populations, and confront the challenges of climate change, it must be remembered that productivity is not the same as absolute production. As Tony Weis points out in his comprehensive overview of the global food system, "the volume of food produced is more than one and a half times what is needed to provide every person on earth with a nutritious diet."[108] Much of this production, and associated productivity increases, remains concentrated on a handful of crops, and in specific breadbasket regions

[107] The UN Environmental Programme's assessment of the environmental factors that played into the 2007-08 global food crisis argues that the "combined effects of climate change, land degradation, cropland losses, water scarcity and species infestations may cause projected yields to be 5-25% short of demand by 2050" (see C. Nellemann, M. MacDevette, T. Manders, B. Eickhout, B. Svihus, A.G. Prins, and B.P. Kaltenborn [eds.], *The environmental food crisis – The environment's role in averting future food crises: A UNEP rapid response assessment* [Arendal, Norway: UNEP, GRID-Arendal], 2009, p 7.). In addition to Albritton's recent treatment of capitalist agriculture, the work of Philip McMichael, Henry and Fred Magdoff, John Bellamy Foster, Walden Bello, and others critiquing global structural shifts in capitalist agriculture is instructive, as are the series of annual reports on global hunger from the UN World Food Programme (*State of Food Insecurity in the World*) and the US Department of Agriculture's Economic Research Service. All indicate a mounting crisis in the character and management of capitalist agriculture.

[108] Tony Weis, *The Global Food Economy: The Battle for the Future of Farming* (Halifax, NS: Fernwood, 2007), p. 11.

of the world, emphasizing that hunger is first and foremost a political and economic problem rather than a matter of crude availability. Political will to meet this problem within the current system, however, stops well short of the radical demands made by peasant and farmers' movements agitating for rights to land, food, and decision-making authority over food and agriculture policy, while solutions advanced by development agencies, governments, and capitalist agri-food firms remain consistently dependent on fossil-fuel based monoculture and advanced forms of biotechnology. These only serve to deepen the unequal and unsustainable character of capitalist agriculture.[109]

In the United States, hunger and the crisis of agriculture remain relatively undiscussed topics, even as statistics on the creeping prevalence of food insecurity must daily be revised upward, and as many consumers begin to seek out local, organic, and fair trade foods provided through a variety of alternative and (ostensibly) just and sustainable networks. There is growing public interest and participation in food politics, although concerns over the ecological, social, political, and economic ills of the corporate-capitalist food system are often channeled into individualized choices rather than a full-on systemic critique. This can be seen in a number of recent examples: in the work of writers like Michael Pollan (author of, most recently, *In Defense of Food: An Eater's Manifesto* and *Food Rules: An Eater's Manual*), in documentaries that start strong and fizzle on the question of political mobilization and systemic change (such as the 2008 film *Food Inc.*), and in the growing number of "celebrity chefs" who draw attention to the problems of public and ecological health without adequately addressing questions of poverty and access (as in Jamie Oliver's 2010 and 2011 television shows on eating in the U.S.).[110] There are, on the other hand, several intersecting trends and movements to which our discussion of the current structural crisis and the potential for a democratic

[109] Weis and Albritton provide a detailed discussion of the imbalances in the global food economy, while responses to the latest global food crisis by international organizations and national governments indicate the extent to which old paradigms and solutions remain entrenched in thinking on global agriculture and hunger. For an example, see the description of the US government's "Feed the Future" initiative at <http://www.feedthefuture.gov>. In short, it poses deeper integration with global food markets, increased investment in advanced biotechnology, and intensified cultivation of arable land as the answer to agriculture's crisis in the developing world.

[110] For more discussion of these popular manifestations of anxiety over our industrial food system, see Joseph G. Ramsey, "Rattling the Capitalist Food Chain," *Minnesota Review*, 73/74 (2009), pp. 255-62, and Julie Guthman, "Commentary on teaching food: Why I am fed up with Michael Pollan et al.," *Agriculture and Human Value*, 24 no. 2 (2007), pp. 261-64.

socialist alternative should be attuned. Most important here are those movements which focus on claims about "the local" and which have become central in the explosion of food activism in the United States and Canada. These provide potentially useful starting points for making more coherent demands for social and ecological justice in line with a broader democratic-socialist movement and potentially a democratic-socialist party. Such localization movements, however, must be linked to concrete efforts to decommodify food production and reassert democratic control over the food system as a whole.

Before arguing on behalf of decommodification in and through democratically controlled localized food systems, the central question of what decommodification means must be addressed. In its most direct form, decommodification refers to the reversal of the process of commodification, understood as the extension of market relations to the production, circulation, and reproduction of needs and wants. Dennis Soron and Gordon Laxer provide a thorough overview of decommodification, and suggest that while it appears as "an ambiguous goal" it is best understood as both process and continuum, with the ultimate goal of "overcom[ing] the radical extension of the scope and authority of the market, emancipating extensive areas of life from demands for private profit and recreating a public, not-for-profit sphere."[111] Soron and Laxer draw on alternative and social-democratic traditions and theories of common ownership and radical democracy to support their call for a reinvigorated push for decommodification, particularly through reclamation of the commons. Such reclamation would address the contradictions of a capitalist economy increasingly dependent on the profit- and crisis-generating capabilities of fictitious commodities (land, labor, money, and knowledge) by pushing back against efforts seeking complete commodification of the public sphere and daily life in the attempt to create the flat market utopia predicted by econometric models.

This push back must, in turn, follow from projects to build forms of radical democratic control over labor and the society-nature nexus, coordinated through translocal action and mechanisms (be they state, party, or less formally institutionalized means). The current depression and the imperial state that underlies it are unable to provide mechanisms for such democratic control, though calls for "traditional values"

[111] Dennis Soron and Gordon Laxer, "Thematic Introduction: Decommodification, Democracy, and the Battle for the Commons," In Laxer and Soron (eds.), *Not for Sale: Decommodifying Public Life.* (Peterborough, ON: Broadview Press, 2006), p. 28.

and anti-state rhetoric from the U.S. far right draw on superficially similar concerns and programs. Without waxing nostalgic for some long-lost idyll of pre-capitalist commons management or disconnected utopias, Soron and Laxer thus also recognize the potential for regressive forms of decommodification. Decommodification could potentially produce a reactionary politics based on exclusionary tropes of tradition, belonging, and moral values that are anything but democratic and equitable. The understanding of decommodification as a continuum is important in this respect, as there are a number of already existing social institutions that may represent starting points for furthering the process, and an active democratic-socialist party could rely on these as agents and starting points for advancing a more thorough decommodification of daily life.[112]

In the sphere of food provisioning, we focus on two potential transitional institutions – the food bank and the community garden. In examining the former, George Henderson defines decommodification as the ongoing circulation of "devalued value," a re-accumulation of "new 'commodities' whose value bears the traces of prior accumulation and yet undergoes a determinate transformation."[113] Food banks form one part of the vast non-profit sector in the United States and Canada, and provide donated food to the hungry, either directly or through third party relief and charity groups. Feeding America, the largest food relief charity in the U.S., feeds over 37 million people each year, while local food banks across the continent report spiking numbers of users since the beginning of the Great Recession.[114] Henderson's discussion of food banks builds from an exegesis of Marx's analysis of the commodity form, and concentrates on the place food banks hold in the circuit of capital. Focusing on food banks' production

[112] See, for example, discussions in Red-Green Study Group, 1995, *What on earth is to be done?*, and the Spring 2002 issue of *Science & Society*. It should be noted here that a move toward localized democracy coordinated by state action would look different in relation to food than it would in the energy system, as discussed in the last section. Energy infrastructure is quite distinct from the needs of food production and distribution, though the principle of local input and decision-making is central to both; economies of scale would be determined through social needs rather than profit motives and market mechanisms.
[113] George Henderson, "'Free food,' the local production of worth, and the circuit of decommodification: a value theory of the surplus," *Environment and Planning D: Society and Space*, 22 no. 4 (2004), p. 492.
[114] Feeding America, "Food Distribution: How We Work," 2010 <http://feedingamerica.org/our-network/how-we-work.aspx> (accessed 31 August 2010). One example of increased food bank use is to be found in Windsor, Ontario, where ten percent of households live in poverty and food bank use has jumped 242 percent since 2006 (Sonja Puzic, "Windsor area food bank use spikes, paycheques shrink, report finds," *The Windsor Star*, 24 August 2010 <http://www.windsorstar.com/opinion/editorial-cartoons/Windsor+area+food+bank+spikes+paycheques+shrink+report+finds/3432776/story.html> (accessed 31 August 2010). Windsor is discussed in more detail in relation to community gardening below.

and reproduction of both labor power and "socially necessary representations" of voluntarism and care in a capitalist economy, Henderson shows how food banks' recirculation of unsold food leads to a potential political dead end. A path toward decommodification that leads through charity and voluntarism can both empower and disempower progressive politics in "the attempted completion of the circuit of the value of labor power," by redirecting value in the form of (unrealized) food commodities to the deserving hungry, represented as the working poor and unfortunate needy.[115]

Henderson argues against a mere "basic needs" foundation for social provision. Such a view "reduces human beings to less than their animal nature," and undermines the quest to exercise our species being, which needs "to create, to flourish and thrive, to transcend" for its full expression.[116] We will return to the implicit conception of life-value at work in such an argument in the next section. The decommodification of food in order to provide a mere basic need to those unable to meet it through the primary circuit of retail capital is a necessary but not sufficient precondition of socialist action and organization in the current moment. More specifically, an enhanced voluntary charity sector, whether operating through food banks, food stamp programs, or cash payments to the poor, is not sufficient or appropriate to further decommodification and overcome the contradictory character of capitalist market regulation of basic needs. While helpful and perhaps necessary in many instances, food banks and other forms of charity, both private and state-administered, often act merely to complete circuits in capitalist food and labor markets that capital is unable to complete itself. They are, in essence, a superficial or incomplete form of decommodification, and function largely to the extent that unrealized profit is available and accessible in a thoroughly commodified and unchallenged capitalist food system. In the context of structural crisis, such institutions are unlikely to provide a politically useful path toward socialist transition as they currently exist. Indeed, entitlement and welfare programs may not even survive political attack and underfunding in the short term of the crisis.

Other viable transitional forms do exist, however, and offer more effective bases for establishing decommodification and the democratic control of food systems. While

[115] George Henderson, "'Free food,'" p. 511.
[116] George Henderson, "'Free food,'" p. 495.

the local production of food in and of itself is insufficient to ensure either the success of decommodification or the provision of this basic need to all, localized forms of food production can provide openings for reimagining and reclaiming productive space (both urban and rural) and the practice of communitarian ethics through the prism of socialist politics. David Harvey articulates the importance of urban space for democratic socialism most directly and forcefully, arguing for a reinvigorated collective "right to the city" movement that would both exercise "greater democratic control over the production and utilization of the surplus" of social production and bring "the state itself . . . back under democratic control."[117] Harvey's call for a democratic-socialist form of urbanization rests on the coordination of multiple disparate local projects already underway; while these are numerous, the social movements behind them "are not strong enough or sufficiently mobilized" to adequately respond to the global coordination and reach that finance capital and the imperial state enjoy.[118] Harvey thus suggests that "the right to the city as both working slogan and political ideal" offers a way forward in unifying multiple local struggles, which include everything from collective food projects to anti-foreclosure movements to local cooperatives and currency movements.[119]

All of these work toward similar goals – life-space reclamation through asserting democratic control over the state and the necessities of production and reproduction, the establishment of a communitarian ethic that limits and reverses the commodity form's hold over daily life, and a re-valuation of public and urban space outside the dictates of neoliberalization and predatory finance capital. Although such claims have been articulated largely in relation to urban space, they can be applied as well to rural areas, and, indeed, movements to reclaim and decommodify life-space in urban centers must forge links to agrarian movements combatting corporate control over agricultural production and the farm as points of metabolic interaction with nature. Such movements are strong in the developing world, and have already achieved an impressive level of international and translocal coordination; igniting similar movements in the developed world, especially in the U.S., linking them with urban counterparts, and forging new

[117] David Harvey, "The Right to the City," *New Left Review*, 53 (Sept/Oct 2008), pp. 37-8.
[118] David Harvey, "The Right to the City," p. 39.
[119] Ibid.

forms and practices of solidarity should be the domain of a democratic-socialist party and the focus of food justice movements.[120]

Looking more closely at how such movements might expand in the context of the current structural crisis, attention must be turned toward calls for localization in the food system. The push for alternative food networks and production-consumption practices is often, though not always, articulated as a need for greater *localization*, from which numerous benefits are to flow. For producers, these include lowered costs of transportation and more stable market outlets, and greater ability to both diversify and adopt ecologically sound farming techniques; for consumers, localization implies greater knowledge of the ecological and labor practices that went into food production, healthier food, water, soil, and air, stronger ties between sites of production (often rural) and consumption (often urban), and the empowerment of consumers relative to industry. Localization efforts find their expression in a number of forms, including fair trade networks, back-to-the-land movements, community-supported agriculture (CSAs) and food cooperatives, farmers' markets, local-only and organic food consumption, the "slow food" movement, and community food security initiatives. Not all of these stop at or are fully captured by reference to a process of localization, of course, as evinced by "fair trade" networks which consciously link localization in production with globalization of consumption to enhance economic and ecological justice, bypassing standard commodity markets to encourage "fair" prices in global exchange of goods such as coffee and chocolate. Nevertheless, locally focused food movements can construct economic and political opposition and alternatives, and help articulate the multiple meanings of food quality.[121]

---

[120] Weis, 2007; Annette Aurelie Desmarais, *La Vía Campesina: Globalization and the Power of Peasants* (Halifax, NS: Fernwood, 2007).

[121] The literature on local food movements has boomed in the last decade. For recent overviews of this work, especially that dealing with the issue of scale, see: Patricia Allen, "Mining for justice in the food system: perceptions, practices, and possibilities," *Agriculture and Human Values* 25, no. 2 (2008), pp. 157-61; Robert Feagan, "The place of food: mapping out the 'local' in local food systems," *Progress in Human Geography* 31, no. 1 (2007), pp. 23-42; Edmund M. Harris, "Eat Local? Constructions of Place in Alternative Food Politics," *Geography Compass* 4, no. 4 (2010), pp. 355-69; Peter Jackson, Neil Ward, and Polly Russell, "Moral economies of food and geographies of responsibility," *Transactions of the Institute of British Geographers*, NS 34, no .1 (2009), pp.12-24; Lucy Jarosz, "The city in the country: growing alternative food networks in metropolitan areas," *Journal of Rural Studies* 24, no. 3 (2008), pp. 231-44; Gerda R. Wekerle, "Food Justice Movements: Policy, Planning, and Networks," *Journal of Planning*

Localization comprises a necessary but insufficient condition for achieving social justice in and through the food system, and like decommodification, can even reflect and reproduce regressive and inequitable tendencies and relations. Michael Winter shows how a politically regressive "defensive localism" can develop via local-only food consumption practices, while Patricia Allen warns that many food justice movements "are much more accessible to relatively more privileged people" and thus replicate inequality and injustice.[122] Julie Guthman highlights this theme as well, noting the racialized coding of alternative food projects in U.S. urban settings, where constructions of organic quality, agrarianism, and alternative marketing practices represent projections of predominantly White cultural and culinary desires; this is compounded by the "missionary zeal" with which White activists bring these practices into communities of color in order to "save" them.[123] Mary Beth Pudup likewise notes the ambiguous politics of individual and social transformation that working gardens are meant to produce. The transformative direct experience of productive labor in collective garden projects sets this model of localization apart from the other forms described above. In political practice, Pudup argues, the subjectivity to be produced through such projects remains an individualized one, adjusting to a broader political economic program of neoliberalization by engaging in "voluntary and third sector initiatives organized around principles of self-improvement and moral responsibility [which] stand in for state sponsored social policies and programs premised on collective responses to social risk."[124]

A brief case study example of community gardening in action serves well to illustrate the potentials and limits of this form of food decommodification as a potential part of a transition to democratic socialism. This discussion is based on the experience of FedUp Windsor, a locally based collective garden project that began in Windsor, Ontario,

---

*Education and Research*, 23 (2004), pp. 378-86; and Michael Winter, "Embeddedness, the new food economy, and defensive localism," *Journal of Rural Studies* 19, no. 1 (2003), pp. 23-32.

[122] Winter, "Embeddedness, the new food economy, and defensive localism"; Allen, "Mining for justice."

[123] Julie Guthman, "Bringing good food to others: investigating the subjects of alternative food practice," *Cultural Geographies* 15, no. 4 (2008), p. 436. Guthman's focus is primarily on California, where numerous local and community-based food movements have taken root, and where the organic movement had its start. Her critique applies equally well to food movements in other locales in North America.

[124] Mary Beth Pudup, "It takes a garden: Cultivating citizen-subjects in organized garden projects," *Geoforum*, 39 no. 3 (2008), p. 1229; see also Julie Guthman, "Neoliberalism and the making of food politics in California," *Geoforum* 39 no. 3 (2008), pp. 1171-83.

in April 2007.[125] As of September 2010, FedUp's continued existence as a cohesive collective is an open question. In short, the collective has fizzled, splintering into different projects reflecting members' divergent interests, capacities, and time, although the organization still exists in name. Without wanting to generalize too much from this one narrow example, we would note that FedUp Windsor does present an example of localization's limits in advancing decommodification, communitarian ethics and organization, and socialist praxis. While never directly describing itself as "socialist," FedUp's primary objectives and organizational structure were in line with socialist values and practice, and the group's focus on building food skills and knowledge, reclaiming the urban landscape, and strengthening and democratizing local food systems was built on tenets of broad popular participation and socialist praxis. The group's gardens – three in the first year, four in the second, and two in the third – were planted with organic and heritage seeds, and planned and worked by all members able and willing, with resulting harvests divided among members according to need and interest, and/or donated to local food banks. Several public education and outreach activities complemented the group's gardening activities, including movie screenings and panel discussions, participation in a broader food security coalition within the city, a bike tour of gardens in the city, and regular open potluck events.

These activities and the organizational and decision-making structures supporting them produced many positive results. For the purposes of this discussion of socialist transition and the building of a democratic socialist movement and party, the most important of these outcomes was the exponential increase in group members' practical knowledge of food production, community mobilization, and organizational collaboration. These positive aspects of the local food movement as manifested in FedUp Windsor were tempered by the limitations of land tenure and access in a rapidly deindustrializing city where such movements have little official support, and by the constraints of the relatively small network of activists and other group participants who were stretched thin managing the gardens and organizing such a movement with limited

[125] Further and more detailed discussion of FedUp Windsor's attempts to build food democracy and collective gardens can be found in Jamey Essex and Maya Ruggles, "Praxis and place in FedUp Windsor's local food activism." In K. Daly, D. Schugurensky, and K. Lopes (eds.), *Learning Democracy by Doing: Alternative Practices in Citizenship Education and Participatory Democracy (Conference proceedings)*, (Toronto: Transformative Learning Centre, OISE/UT), 2009, pp. 503-09.

resources. Indeed, the regular work of FedUp's gardening and organizational activities typically fell to a limited number of dedicated members and volunteers, almost all of whom were white, middle class, or university students. The same fate likely befalls other collective and community gardening projects in other cities across North America, including those where residents and participants are not primarily white or middle class.

This detailed discussion of a particular collective gardening project in a single locale is intended to be hermeneutic rather than representative. The challenges and limitations FedUp Windsor encountered were accompanied by successes as well – a good deal of food was produced, heightened public attention was drawn to issues of food democracy and justice, participants made a first step toward democratic control of life-space in their community, and at least two other food-oriented projects grew from FedUp's example and membership (one a new community garden on university land, the other a food rights and urban planning activist network). CSAs, community gardens, and alternative food co-ops across North America no doubt mirror aspects of the experience of FedUp Windsor. What this detailed examination of localization points to is the need for a more coherent and direct engagement with a politics of social responsibility that builds upon and extends democratic control and decision-making authority over productive resources. Collective garden projects provide a platform for building such control, as do CSA arrangements that directly link urban consumers and rural producers, and food co-operatives based on common ownership rather than profit maximization. In each of these alternative food networks, consumers have either a direct stake in productive and distributive labor, or a right to equitably participate in decisions over food production, land use, and other aspects of food provisioning.

Such forms of food provisioning can help foster "responsibility to place," as Elizabeth Barham terms it, but cannot be built simply on "better" consumption practices alone, as these often reproduce and extend existing subjectivities, discourses, and structures associated with neoliberal, revanchist, and otherwise capitalist modes of governance and provisioning.[126] Likewise, building a democratic-socialist agriculture and food system amid the crises of capitalist agriculture cannot be done through appeals

[126] Elizabeth Barham, "Translating terroir: the global challenge of French AOC labeling," *Journal of Rural Studies* 19, no. 1 (2003), p. 129.

to localization alone, or through scattered and uncoordinated efforts to build collective garden and other food justice projects in different localities. A more robust political anchor and system of translocal coordination, arguably best achieved through movement, party, and eventually, state action, must be made a central plank in any food justice movement that wants to build from a program of localization, equity, and social justice. Conversely, no democratic-socialist party can expect to succeed in seizing the moment of structural crisis and in leading a transition beyond capitalism without addressing the daily basic need of food for all. Such transition might prove disruptive, chaotic, and difficult; yet the current system of food provisioning through capitalist industrial agriculture and retail already presents us with an unsustainable and ultimately self-destructive system whose ecological destruction, economic volatility, and political irrationality are likely to force such alternatives into existence sooner rather than later. It is in this context that the progressive and even revolutionary decommodification of food must become a goal of movement, party, and state action under democratic socialism, particularly for those who are structurally marginalized from commodified systems of food provision (including alternative, organic, and 'natural' systems that remain merely alternative forms of commodified exchange). This can also serve as a central part of wider efforts to decommodify life-space generally, as the next section discusses.[127]

**(4) Democratic Socialism and Life-Value**

As the foregoing analysis makes clear, capitalism is not simply inegalitarian or unjust according to some abstract metric or principle, but a systematic threat to planetary and human life, and to the latter in both its physical-organic and social dimensions. There has been a growing recognition in the socialist movement of the need to re-articulate socialist goals as essentially life-protective. The most developed expression of this re-articulation is found in the eco-socialist movement, and especially the work of Joel Kovel. While a great deal can be learned from Kovel's work, it, nonetheless suffers from a certain ambiguity in his conception of needs. The problem is that Kovel fails rigorously

[127] Gwynne Dyer's recent book, *Climate Wars: The Fight for Survival as the World Overheats* emphasizes food shortages as one of the main consequences of AGW. The book suggests that if we don't act fast enough, local options for food production will themselves be taken off the table, so to speak, in many locales around the world subject to AGW-induced extreme weather.

to distinguish between life-requirements, which are the only proper needs, and artificially induced consumer demands and addictions. For example, he writes, "As capitalism penetrates life-worlds, it alters them [needs] in ways that foster its accumulation, chiefly by introducing a sense of dissatisfaction or lack. . . . In this way, children develop such a craving for caffeine-laced sugar-loaded, or artificially sweetened soft drinks that it may be said that they positively need them."[128] In other words, Kovel is arguing that any consumer demand that we can pervasively be made to feel that we cannot live or be happy without becomes, by reason of that feeling, a need. This approach concedes too much to capitalist consumer psychology. In order to see the problem more clearly, one must restrict the category of needs to life-requirements. Life-requirements are those natural and social resources and institutions which we must regularly appropriate and interact with if we are to develop the organic capacities of the human being. As McMurtry demonstrates, we can test any felt demand to see whether or not it is a life-requirement by examining what objective harm would befall us if that demand were to go unsatisfied.[129] Since no real harm to our capacities for conscious creative expression follows from failing to satisfy advertising induced addictions, it follows that they are not *needs.* Rather, needs are our actual, positive connection to the natural field of life-support and the social field of life-development; as such, they ought to be our essential guide to the fundamentally practical question of what goods a democratic-socialist, life-economy ought to produce and how we ought to produce them. If we allow that consumer addictions are needs, then we use need in a purely descriptive sense, which then undermines the normative force of the difference between a need and consumer-demand. If we allow that my addiction to smoking is a need, and also that my thirst for water is a need, then the moral logic of satisfying either is the same. If "need" implies necessity of satisfaction, and necessity of satisfaction imposes a moral duty on others to satisfy it, then it would follow that there is a moral equivalence between satisfying my addiction to nicotine and satisfying my thirst for water. Yet, clearly there cannot be a moral equivalence, since the outcomes are opposed to each other, life in one case, speedier death and ill-health for others in the vicinity of the second-hand smoke in the

[128] Joel Kovel, *The Enemy of Nature* (London: Zed Books, 2007), p. 53.
[129] See John McMurtry, *Unequal Freedoms* (Toronto: Garamond, 1998), p. 164.

other. To be sure, this example is an easy case, but it is intended only to illustrate as clearly as possible the difference between actual needs as life-requirements and consumer demands. It is true that there will be more difficult cases (personal motor vehicles, for example) but the hard cases cannot be solved without the conceptual clarity the clear illustration provides.

A similar problem besets the allied efforts of Alan Gilbert to interpret Marx and Engels as proffering a normative theory of moral realism. By "moral realism" Gilbert means that norms have an objective foundation which, if properly understood, can lead to moral progress. "Moral realism recognizes the objectivity of moral judgements about human needs and capacities, progress in morality . . . [and] the dependence of ethical progress on advances in social organization."[130] Gilbert's great strength is that he recognizes the material reality and objectivity of the harm that follows from need-deprivation. The proof of the reality of such harm lies in the existence of multiple social and political struggles, struggles which Gilbert regards, rightly, as schools of moral insight. The limitation of Gilbert's position, in our view, is that he does not spell out explicitly that which is implied by his argument: that needs are categorically distinct from other wants and desires because anything which is a need is *a life-requirement of human beings.*

The moral core of Marx's critique of capitalism is that it subordinates the satisfaction of human needs to the accumulation of capital. In other words, it subordinates the *life-value* of need-satisfiers to its own system-need to accumulate capital on ever more expansive scales. Life-values may either be instrumental, as the value of water to my organism or education to my capacity to think and communicate, or intrinsic. Intrinsic life-values are the enjoyed expression of those human capacities that life-requirement satisfaction enables.[131] In order to understand clearly what we mean by "life-value" we need to ask: What are the "shared life-interests" of human beings? How do the values they imply underlie socialism? And what political conclusions follow from this life-value ground? It may seem a vexed and insoluble issue to determine what the

[130] Alan Gilbert, "An Ambiguity in Marx's and Engle's Account of Justice and Equality," *The American Political Science Review,* vol. 76, No. 2, June, 1982, p. 330 (pp. 328-46).
[131] John McMurtry, "Philosophy Theme Essay: What is Good, What is Evil? The Value of All Values Across Times, Places, and Theories," Chapter 6, "The Primary Value Axiom," *Encyclopaedia of Life-Support Systems* (Oxford: EOLSS Publishers, 2010) <http://www.eolss.net>.

"shared life-interests" of human beings are. The problem *would* be insoluble if we were searching for a definitive and final list. Human beings change their own history, social structures, and thus their own nature too, so there can never be a final list of life-interests. Yet, there are some constants to human life as well. Despite particular differences human beings all have bodies which share organic, physical requirements essential to life. Human beings are also self-conscious bodies existing in certain fundamental social networks which generate shared life-interests in being cared for while young, being educated, and having real opportunities to express and enjoy their capacities for thought, articulate speech, and creative activity in cultural, economic, and political public life. Finally, all humans are mortal, their life-times limited, the goodness or otherwise of their lives determined by what they are able to do or not do within these fixed temporal frames. Hence free time, time experienced as an open matrix of possibilities for life-valuable activity as opposed to a closed structure of imposed routine, is also a shared interest of human beings whatever concrete differences shape their more particular goals and practices. Hence there are three general sets of life-interests corresponding to the three shared elements of human life: *embodiment* – physical organic life-requirements; *social self-consciousness* – the inter-personal and institutional means of responsible creative agency; and *mortality* – the temporal conditions of free self-development.

Capitalism is a total system because its ability to reproduce itself depends upon endlessly colonizing the natural and social life-spaces and times in which the resources required to satisfy our life-interests are produced and the life-activities those resources support are articulated. It is a life-incoherent society not only because it falls into regular crisis as demonstrated above, but also because, even when it is functioning well according to its own principles of profitable production, its developmental tendencies undermine the long-term life-supportive capacity of the natural life-support system on earth and instrumentalize the life-developing institutions of the social world as tools for its own reproduction. The natural field of life-support and the social field of life-development are bent to the service of maximizing the accumulation of money-capital, not the maintenance of a life-supporting natural field and the cultivation of social institutional order conducive to the development of life-capacity. This system is thus *life-incoherent* because it uses means of life and life-valuable capacities as means of growth

of money-value, destroying or damaging means of life and the life-value of human capacities as a matter of necessity. Instead of depending on the natural field of life-support and others within the social field of life-development, the existence and the quality of life under capitalism are determined by non-living money-capital flows.

If socialism is the antithesis of capitalism, then in the most universal sense it must be a life-coherent society.[132] As such, socialism must be articulated in such a way that it speaks directly to the particular structure of life-crisis experienced by different groups of differently situated people. Interpreted as the basic structure of a life-coherent society, socialism cannot be understood as contingent simply upon "the social content of government," as Trotsky said, but also requires government grounded in explicit recognition of the reality of life-interests and democratically formulated policy which demonstrably serves those ends.[133] Ending the control of the capitalist class and market forces over the material conditions of life-valuable activity and replacing them with a democratically planned economy are instrumental conditions of building socialism, but on their own are not sufficient conditions for the solution of basic life-crises. It is conceivable that workers can control environmentally destructive industries without solving the problem of environmental destruction, and there is no contradiction in a democratically planned economy prioritizing the production of video-games over textbooks. Only when workers' control and democratic economic planning come to represent the proper political expression of an overall life-coherent society are they unambiguously superior to the capitalist alternative, which, because it must always seek to expand money-value, can never be fully life-coherent (although it can of course be more or less life-*in*coherent).

The idea of life-coherence is implicit in Marx's aphorism describing the basic principle of socialist society as an institutional order in which "the free development of each is the condition of the free development of all." Free development presupposes development, which presupposes life. Hence the first material condition of free development for each and all is that they are able to live. Therefore, as Kovel and other eco-socialists have argued, the first priority of socialism must be the establishment of an

[132] *Ibid.*
[133] Leon Trotsky, "Results and Prospects" in *The Permanent Revolution and Results and Prospects,* (New York: Pathfinder Press), 1974, p. 122.

economy which coheres with the natural conditions of life-support, i,e., which ensures that production will be sustainable over an indefinite future. But "development" means more than metabolic functioning; it means qualitative improvement to a better state.[134] This raises an important question: What is a better rather than a worse state for human beings? Under capitalism this question is never posed, because it is universally assumed that more money for self is the only good state of life. Indeed the very definition of rationality in classical and neo-classical economics is self-maximizing accumulation without regard for the consequences for anyone else or one's world.

Human beings, we noted above, are not just bodies but active, creative, socially self-conscious beings. As socially self-conscious they are capable of becoming aware of the life-value for others, of their individual capacities for experience and action, and capable, given the satisfaction of their physical organic life-requirements, of formulating unique life-projects that cohere with others in so far as they improve the natural field of life-support and the social field of life-development. The life-coherence of individual projects implied by Marx's claim that, under socialism, "the free development of each is the precondition of the free development of all" contrasts with the life-incoherence of action under capitalism. Here, society is structured such that everyone's life-activity is grounded in the exploitation of labor, the good of the ruling class dependent upon the worsening of the life-conditions of the vast majority. *Life-coherent development* thus presupposes that each recognizes their shared dependence on the natural world and their interdependence with others in the social world. Life-coherent individual development presupposes that each thinks of him or herself as he or she really is – a moment within natural life-support systems and social life-development networks. If each understands that their individual good depends upon healthy natural life-support systems and social institutions that have cured, educated, and cared for him or her, then it would be materially irrational and self-undermining to develop one's own capacities in ways which directly or indirectly despoil the natural environment or depend upon the exploitation of others. If what you are depends upon the state of the natural and social fields without which you would not exist, then it follows that to worsen those shared conditions of life must worsen your own. Life-coherent forms of capacity development and enjoyment are

[134] See the discussion in Herman Daly, *Beyond Growth* (Boston: Beacon Press, 1996), p. 32.

those which maintain or improve the natural life-support system and improve the life-value of others' lives by contributing to the institutions of life-development.

Although it is life-incoherent in its structure and long-term tendencies, not every element of existing capitalist society must be rejected in a future socialism. What makes capitalism livable for people to the extent that it is are the achievements of centuries-long development and democratic resistance. These achievements – environmental regulations, natural spaces free from capitalist exploitations, public health care, free public education, democratic institutions, shorter working days and weeks, equal pay for work of equal value, the possibility of oppositional political organization – what McMurtry calls the "civil commons," are the life-coherent principles and institutions that mitigate the long-term, life-incoherence of capitalism.[135] Each of the victories listed above are the result of struggle against the dominant structures of power and wealth that define capitalism. While few would dispute the social value of these victories, few would identify them with workers' struggles or with socialism, and yet the working class was central to the achievement of each. People support them because they want to be able to breathe, to get health care when they need it, to have their children educated, and to participate in the governance of collective life. In this sense we do not often need to win people over to socialist values. Rather, we need to get people who already support these life-valuable elements of existing society to see that the values they already hold are implicitly socialist, and then to mobilize them for future struggles to protect that which has been won and to win new victories against the very foundation of capitalist power: private control over that which all require to live, and live well.

Read in this way, movements to create public health care where it does not exist, to adequately fund public education, to protect natural spaces, or, more exigently, to develop democratic alternatives to capitalist forms of work and production – all are not only steps towards a future democratic socialism but in fact are the real expression of democratic-socialist processes, however stamped with the contradictions of the capitalist society within which they have been secured. To be sure, partial victories within capitalism are not identical to socialism. The more significant the victory, the more intense the ruling class fight back. Nevertheless, as Michael Lebowitz has recently

[135] John McMurtry, *The Cancer Stage of Capitalism* (London: Pluto, 1999), pp. 30-1.

argued, we should not expect socialism to spring fully formed and pure from working class struggles.[136] In the political context of North America especially, where revolutionary traditions have been demonized and mostly destroyed, socialists cannot hope to rebuild a movement strong enough to win new victories on the basis of theory alone. Rather, we need to point to successful movements and practices that have freed elements of life-space and time from money-value determination as evidence that another, socialist world is not only possible, it is actual, if only in embryo and on a small scale**.** As we have argued above, and as Mészáros has recently made very clear, localism in the abstract is not the solution, precisely because it is local and therefore not powerful enough to overturn capitalist structures of exploitation and alienation.[137] What we are arguing is not that local experiments are the solution, but rather that they are evidence of the reality and the potentiality of democratic structures of socio-economic organization. Their function in the argument is to provide substantiating evidence of the concrete possibility of the broader goal, the achievement of which, the authors understand, will require broad-based political and social struggle. Instead of textbook demonstrations of old arguments that have never been able to convince a majority of citizens of North American societies, socialists need to reconfigure socialism as a fully life-coherent society, one prefigured by actually existing local efforts, and re-build our movement on this basis. Thus re-interpreted, the struggle for socialism appears as the fullest realization of the human struggle to secure the conditions in which for the fullest development of our capacities to feel, think, imagine and create.

**(5) The Centrality of Party Building in the Work of the "Late" Marx and Engels**

We close our case for a mass democratic-socialist party by drawing on the political work of Marx and Engels during the 1870s, 1880s and 1890s. At the time, both viewed the formation of working-class political parties as necessary steps toward socialist transition in Europe and North America which, for the historian August Nimtz, also

[136] Michael Lebowitz, *The Socialist Alternative: Real Human Development* (New York: Monthly Review Press, 2010), pp. 129-37.
[137] See Istvan Mészáros, *The Challenge and Burden of Historical Time* (New York: Monthly Review Press), 2008, p. 257.

marked a "decisive breakthrough" in the historic struggle for democracy.[138] Nimtz has argued that Marx and Engels were revolutionary activists who consciously and deliberately connected the ongoing struggle for socialism to the defense of a certain understanding of democratic rights, a term they did not interpret in the traditions of bourgeois formalism. At the same time, all forms of bourgeois property needed to be abolished. Bourgeois property would be expropriated, not defended, as a right. Just as Marx and Engels did, we interpret this democratic right in substantive terms, which is often at odds with the formalist traditions of liberalism.

For Marx and Engels, the transition to socialism at that time was envisioned as occurring within the social, economic and political framework of the bourgeois-democratic republic. From this they concluded that the electoral process was a necessary form of struggle to win concessions from the bourgeoisie whenever possible. More importantly, however, party-building was, for them, a means of assessing the strength of the movement behind it and participation in elections was never the end in itself. This brings us to two critical points that we make at the onset of this section. First, neither Marx nor Engels were under any illusions that the path to socialism would be legal or peaceful in the end and were quite clear on the limits of electoral politics. Second, their view of what needed to be done in Europe at that moment was part of their general perspective, rooted in *The Communist Manifesto* decades earlier, that the *line of march* was always the building of international socialism.

For both men, the turn toward party building was a strategic necessity. In his Inaugural Address to the International Working Men's Association in 1864, Marx declared that the conquest of political power was the primary political objective of the working classes because it was the key to their emancipation from capitalism. Nimtz says that throughout the International's existence, Marx and Engels rarely referred to it as "our party" or the "Marx party," though from its programmatic statements he asserts that it was "their party in the making."[139] By 1873, however, they had determined that the IWMA no longer served the needs of the European working classes. Given the sharpening of the class struggle in general and the need for more concrete organization

[138] August H. Nimtz, *Marx and Engels: Their Contribution to the Democratic Breakthrough* (Albany, NY: State University of New York Press, 2000).
[139] Nimtz, *Marx and Engels*, p. 234.

along national lines, Marx concluded that the formal organization of the International should "recede into the background for the time being" since the time had come for the "various countries" to construct independent working class parties of their own.[140] For Marx, this marked a deliberate shift in political objectives. Working-class political parties would now assume the task of organizing and preparing for the conquest of political power in their respective countries. This in no way detracted from the need for all workers to unite in common struggle against the ruling classes, especially after the dramatic emergence and defeat of the Paris Commune in 1871, the first great symbol – and victim – of the international struggle against capitalism.

As is well known the Commune had a tremendous impact politically and theoretically on Marx and Engels. For sure, it affirmed their conviction that the struggle for socialism had to be grounded in a firm grasp of existing conditions and circumstances as the basis for political praxis. Yet their analysis of the political and social character of the Commune also sharpened their views on the role of state power in the making of revolution, the relationship between revolution and the class struggle, and the extent to which a revolution like the Commune could be measured in the advance toward socialism. In all respects, both men recognized the Commune as the beginning of a process toward social emancipation that would be long in the making.[141] In the Preface to the 1872 German edition of *The Communist Manifesto*, they recognized that it was not enough for the Communards to "lay hold of the ready-made State machinery, and wield it for its own purpose."[142] The social revolution faced the necessary task of breaking up the political machinery of the bourgeois state in order to set up a new kind of proletarian state that would concretize the revolutionary gains and suppress the counterrevolution. In terms of its significance to the development of the class struggle, Marx wrote that the Commune was "*the political form of the social emancipation*, of the liberation of labour from the usurpation (slaveholding) of the monopolists of the means of labour."[143] The Commune did not abolish the class struggle, but in liberating labor it "affords the rational

[140] Ibid., pp. 234-35.
[141] Ibid., p. 216.
[142] Marx and Engels, "Preface to the 1872 German Edition of the Manifesto of the Communist Party," Marx-Engels, *Collected Works*, vol. 23 (New York: International, 1988), p. 175.
[143] Marx, "Outlines of the Civil War in France," in Karl Marx and Frederick Engels, On The Paris Commune (Moscow: Progress Publishers, 1971), p. 156.

medium in which the class struggle can run through its different phases in the most rational and humane way." As a result, Marx wrote:

> The working classes know that they have to pass through different phases of class struggle. They know that the superseding of the economical conditions of labour by the conditions of free and associated labour can only be the progressive work of time (that economical transformation). . . . They know that the present 'spontaneous action of the natural laws of capital and landed property' can only be superseded by the 'spontaneous action of the laws of social economy of free and associated labour' in a long process of development of new conditions.[144]

From this perspective, Marx and Engels established clarity on the question of the relationship between the Commune and socialist development. "The majority of the Commune was in no sense socialist, nor could it have been," Marx wrote to an associate in 1881, since conditions for the revolutionary overthrow of capital were not yet present. From a materialist point of view, what he said *then* is instructive *now*:

> What is to be done, and done immediately at any given, particular moment in the future, depends, of course, wholly and entirely on the actual historical circumstances in which action is to be taken. . . . We cannot solve an equation that does not comprise within its terms the elements of its solution. Come to that, there is nothing specifically 'socialist' about the predicaments of a government that has suddenly come into being as a result of a popular victory. . . . Of one thing you may be sure – a socialist government will not come to the helm in a country unless things have reached a stage where it can, before all else, take such measures as will so intimidate the mass of the bourgeoisie to achieve the first desideratum – a time for effective action.[145]

[144] Marx, "Outlines of the Civil War in France," pp. 156-57.
[145] Marx to Ferndinand Domela Nieuwenhuis, February 22, 1881, *Collected Works*, vol. 46 (New York: International, 1992), p. 66.

Accordingly, Marx explained that the Communards should have exercised "a modicum of common sense" to obtain "the utmost that was then obtainable – compromise beneficial to the people as a whole."[146]

Nevertheless, the political landscape on which the strategic and tactical fight would be made had changed. As Marx wrote in 1875 in *The Critique of the Gotha Program*, "the class struggle must be fought out to a conclusion precisely within this final form of the state in capitalist society."[147] Throughout the 1870s, he and Engels emphasized the role of working-class parties in organizing the proletariat toward the transition to socialism, while recognizing that the road to it would likely end in violence and the necessity of revolutionary armed struggle. This drew them into fierce, protracted struggles with Proudhonists in the IWMA who rejected political activity, as well as with English trade unionists and German Lassalleans, who sought reformist or class-collaborationist solutions to fundamental contradictions between capital and labor. For Marx and Engels, workers had to become deeply involved in the processes of bourgeois governance to defend basic democratic rights and push through their respective party's programs. It required that each party engage in electoral politics in support of economic struggles for higher wages, reduction of the working day, unemployment insurance, ending child labor, etc. Thus, the struggle for socialism in a period of transition included the struggle for state power. As Marx wrote to Friedrich Bolte in 1871:

> The POLITICAL MOVEMENT of the working class naturally has as its final object the conquest of POLITICAL POWER for this *class*, and this requires, of course, a PREVIOUS ORGANIZATION of the working class developed up to a certain point, which arises from the economic struggles themselves.
>
> But on the other hand, every movement in which the working class comes out as a class against the ruling classes and tries to coerce them by PRESSURE FROM WITHOUT is a POLITICAL MOVEMENT. For instance, the attempt in a particular factory . . . to force a shorter working day out of the individual capitalists by STRIKES is a purely economic movement. The movement to force through an 8-hour law, etc is a *political* movement. And in

[146] Ibid.
[147] Marx, "Critique of the Gotha Programme," *Collected Works*, vol. 24 (New York: International, 1989), p. 96.

> this way, out of the separate economic movements of the workers there grows up everywhere a *political* movement, that is to say a movement of the *class*, with the object of achieving its interests in a general form, in a form possessing general, socially binding force. Though these movements presuppose a certain degree of PREVIOUS ORGANIZATION, they are in turn equally a means of developing this organization."[148]

In 1880, Marx dictated the electoral program of the French Workers' Party. Marx considered that the program's "communist aim," "practical demands," and "the ventilation of the most diverse points of view" made the party into the "first real workers [apostrophe in the original?] movement" in France.[149] In the preamble, Nimtz says, we find Marx's "most succinct and popular rationale, from a communist perspective, for the participation of the workers' party in elections."[150] Marx begins with the premise that "the emancipation of the producing class [or the proletariat] is that of all human beings without distinction of sex or race" and that "producers cannot be free" unless they own property in its "collective form, whose material and intellectual elements are shaped by the very development of capitalist society." Capitalist society shapes the conditions for this collective form, but its collective appropriation by the proletariat can "only spring from their revolutionary action . . . organized into an independent political party." To this end, "all of the means at the disposal of the proletariat, including universal suffrage" should be utilized. Taking part in the elections, he emphasizes, is a "means of organization and struggle" and that "universal suffrage [is] thus transformed from the instrument of deception which it has been hitherto into an instrument of emancipation."[151]

For Marx and Engels, the movement of the workers, that is to say, the ongoing efforts to turn ideas into material forces through practice, was ultimately the measure of a political party's strength. The self-organization of the working class served to build class consciousness, strengthen political resolve, and prepare workers as leaders. In a speech

[148] Marx to Friedrich Bolte, November 23, 1871, *Collected Works*, vol. 44 (New York: International, 1989), p. 258.
[149] Marx to Friedrich Adolph Sorge, November 5, 1880, *Collected Works*, vol. 46, p. 44.
[150] Nimtz, *Marx and Engels*, 249.
[151] Karl Marx, Preamble to the Programme of the French Workers' Party, *Collected Works*, vol. 24 (New York: International Publishers, 1989), p. 340.

to the London conference of the IWMA in September 1871, Marx emphasized the importance of getting workers into parliaments to establish "a platform . . . for our principles."[152] More importantly, however, participation in elections would measure the party's strength with respect to its level of organization and support. Winning legislative seats was desirable, of course, though the act of running candidates alone gave working people an understanding that they no longer had to serve the interests of liberal-democratic elements of the ruling class. Engels, of course, shared this central belief in the purpose of elections but also went one further, stating equivocally that it didn't matter how many seats were won or lost. "I am prouder of the defeats than the successes," Engels said. "What we won we owe – for the first time – entirely to our own strength and not to the liberals or democrats."[153]

The significance of these statements cannot be minimized. Marx and Engels were always clear that participation in elections was never an end in itself. Both warned against "parliamentary cretinism," the belief in electoral victory as the endgame of socialist transition, which created the illusion of a peaceful road to socialism and dismissal of the threat of counterrevolution. Although universal suffrage, once transformed into an instrument of emancipation, could be used to organize and educate the working class, it was equally true that engagement in electoral politics could prove self-deceptive if it fostered the delusion that winning elections alone would complete the conquest of state power. At times, Marx seemed to ride the fence. For example, in a speech delivered to the Amsterdam branch of the IWMA in 1872, he suggested that a peaceful transition to socialism was possible in America, England, and possibly Holland based on assessments by workers' movements in each country as to whether institutions, customs, and traditions made that possible.[154] Nevertheless, he was convinced that this could never be the case in Germany, even despite the growth of the German party. Commenting on the Reichstag debate in 1878 to outlaw the German Social-Democratic Workers Party, Marx wrote that "an historical development can remain peaceful only for

[152] Nimtz, *Marx and Engels*, p. 227, cites the record of Marx's speech to the London Conference regarding the political action of the working class, *Collected Works*, vol. 22 (New York: International, 1986), pp. 616-17.
[153] Nimtz, p. 261.
[154] Marx, On the Hague Congress [A correspondent's report of a speech made at a meeting in Amsterdam on September 8, 1872], *Collected Works*, vol. 23, p. 255. The editors note, p. 687, that the speech published here appeared in the Belgian paper *Liberté* with minor changes.

so long as its program is not forcibly obstructed by those wielding power at the time." He then added:

> If, for example, in England or the United States the working class were to win a majority in PARLIAMENT or CONGRESS, they could, by lawful means, rid themselves of such laws and institutions as impeded by their development, though they could only do so insofar as society had reached a sufficiently mature development. However, the peaceful movement might be transformed into a 'forcible' one by resistance on the part of those interested in restoring the former state of affairs; if (as in the American Civil War and French Revolution) they are put down by force, it is rebels against lawful force.[155]

Engels continued to uphold Marx's position – the point of transformation from the peaceful, legal movement to the necessity of force and armed struggle – against the disease of parliamentary cretinism. For Engels, whose writings and political activities in the twelve years between Marx's death in 1883 and his own coincided with the dramatic rise of the SPD in Germany, party building and electoral politics remained a means to an end, a way of gauging the strength of the party and the movement behind it, until illegality and violence from the ruling class made armed struggle necessary. Engels was never lulled into reformist politics. When the German government ended its ban on the German Social Democratic Party, which led to its subsequent electoral victory in 1887, Engels expected that the government would find a way to attack the party illegally.[156]

As it turned out "parliamentary cretinism" became a primary feature of socialist politics in the 1890s. Abandoning revolutionary principles, European working-class political parties conflated immediate struggles with long-term goals. Opposed to the position taken by Marx and Engels, reformist Social Democracy sought immediate incremental gains which, though beneficial to the working classes in many respects, necessarily meant compromise with capitalism and the ruling classes, along with the eventual reversal of the gains that had been won. The point we wish to make, which

[155] Marx, The Parliamentary Debate on the Anti-Socialist Law [Outline of an Article], *Collected Works*, vol. 24, p. 248. Nimtz, p. 260, refers to this passage.
[156] Engels, "Socialism in Germany," *Collected Works*, vol. 27 (New York: International, 1990), pp. 240-41.

flows from our general thesis as stated above, is that the failure to achieve revolutionary socialist transition and the consequent lapse into social-democratic reformism in late nineteenth century Europe had less to do with subjective differences between all parties *and more (though not everything) to do with the objective conditions of world capitalist development at that time.*

Marx discovered that capitalist expansion based on the necessity of constant accumulation ultimately led to a crisis which, owing to its historic particularities, also rendered a solution. Michel Beaud offers us a succinct analysis of this particular crisis, what he calls the "the Great Depression" of world capitalism between 1873 and 1895, and from which came "a fundamental mutation" that ensured capitalism's survival – centralization of industrial capital in the form of trusts and national monopolies that created a new hegemonic form of finance capital which then unleashed an unprecedented global expansion of capitalist relations of production and exchange.[157] Here, it is crucial to note that Engels, apparently in agreement with Marx, understood that the crisis was not, to put it in our terms, *structural*. In December 1882, only a few months before Marx died, Engels theorized the late nineteenth century crisis while recalling the case he made for a socialist party:

> The crisis in America would seem to me, like the one over here [England] and like the pressure on Germany industry . . . to be not a crisis proper, but the after-effect of overproduction dating back to the previous crisis. On the last occasion the crash in Germany came prematurely because of the milliard racket, whereas here and in America it came at the proper time, in 1877. But never, during a period of prosperity, had the productive forces been so expanded as in the years between 1871 and 1877, hence . . . the chronic pressure here and in Germany on the main branches of industry, especially cotton and iron; the markets are still not able to absorb all those products. Since American industry is, in the main, still working for the protected home market, a local interim crisis may easily arise there, in consequence of the rapid increase in production, but ultimately it will only serve to hasten the time when America becomes capable of exporting and of entering the world market as England's most dangerous competitor. Hence I do

[157] Beaud, *A History of Capitalism*, pp. 135-67.

> not believe – and Marx shares my view – that the real crisis will come very much before it is due.[158]

In short: while we do not take what might be viewed as an economic determinist view of this earlier crisis, the fact is that capitalism had a lot left in the tank. Now, however, things are different, the "real crisis has come due" and for that reason we assert that the historic social-democratic compromise (which did not have to happen but could and did) that thwarted Marx and Engels in their efforts to build working-class political parties as agents of socialist transition *does not apply to the current moment*. On the contrary, the structural crisis of U.S. capitalism presents conditions for the construction of a mass-based, democratic-socialist party that seeks to do *now* what Marx and Engels hoped to do *then* – to move across the uncharted terrain of socialist transition. How we will do this in terms of program, strategy and tactics must be left for future discussion, though we offer a few fundamental proposals in our concluding remarks. All we have done here is to identify five components of an admittedly skeletal case. Yet we think all such discussion hinges on an understanding of the most important of the five, the character of the current crisis which, we argue, compels us to talk about the transition to socialism concretely.

Regardless of the uncharted ground ahead of us, one thing appears quite clear. Unlike the mutation of capitalism that created a new, hegemonic form of finance capital and imperialist expansion in the 1870s, 1880s, and 1890s, we are now living in the moment of what István Mészáros has determined to be a global, structural crisis of capital, what Mike Davis has described as a "planet of slums," what Joel Kovel portends as the end of capitalism or the end of the world, what John Bellamy Foster and Robert McChesney see as our ultimate choice: Socialism or Exterminism. For the United States in 2010, there is no new New Deal around the corner, nor is it likely that some non-Western power like China will come to the rescue of U.S. capitalism by means of some reverse Marshall Plan – certainly we can expect that China will ultimately experience its own version of Late Capitalism's contradictions. Rather, it is plausible that there can be no new round of capital accumulation in a debt-ridden Pax Americana without some extraordinary act of imperialist aggression that will require the ruling class to convince

[158] Engel to August Bebel, December 22, 1882, *Collected Works*, vol. 46, p. 415.

enough of us that Fortress America is our best, last chance. Without a revolutionary socialist alternative, such a scenario will mean the common ruin of the contending classes.

**Conclusion: The Party as an Instrument of Transition**

We have argued that the structural crisis of U.S. capitalism now makes it necessary to consider conscious planning and movement toward socialist transition through the formation of a mass, democratic-socialist party. We are conscious of the risks involved, not only from the standpoint of what the ruling class and its attendants – the counterrevolution in waiting – will do to us as we move forward, but also the pitfalls we most assuredly will create for ourselves in the process. The revolutionary character of the current moment has emerged, we think, from the objective conditions of structural crisis and brought us to an historic conjuncture: the need to build the mass party as a solution to the crisis of a moribund, rogue empire and without the fear of a social-democratic compromise.

At the present time, there is no other world power seeking to bail out a dying Pax Americana, just as the latter did when, in its ascendancy, it propped up the forces of order in Europe and other parts of the world following two world wars. Nor is it possible for Pax Americana to restore its imperial strength without resort to extraordinary measures involving greater regimentation of its own people to facilitate a qualitative advance in the militarization of foreign policy – in a word, fascism and another world war. Put another way, the global capitalist conditions that made possible the New Imperialism of the 1880s and 1890s, from which emerged the "mutation" of finance capitalism as a solution to stagnation and crisis in the core areas of the world capitalist system, cannot be reproduced by the American imperial order given the global contradictions of contemporary capitalism, which approach the ecologic limits of capitalism itself. The extent to which China might hope to achieve global capitalist hegemony under these conditions may push such limits toward a planetary catastrophe in one form of another.

For all these reasons, we contend that it is necessary to build a mass political party as the instrument *for* revolutionary-socialist transformation on the ruins of U.S. capitalist society. Foremost in our thinking is that the circumstances of the current moment

manifest the main theoretical premise outlined by Marx in sections of *Capital*, specifically, where he argues that unlike any other mode of production, capitalism alone creates the conditions of its own negation.[159] For Marx, the transition to socialism was already evident from the deepening contradictions of advanced capitalist society, contradictions that only arose from the centralization of capital, i.e. monopoly, in the late nineteenth century. Today, the structural crisis of finance-monopoly capitalism has fueled movements across America in developing alternative local food systems, business organizations, health care, sources of financing and credit – even local currencies – some of this in the form of cooperative ownership. As the current crisis deepens so do its antagonistic contradictions:

- on the one hand, the drive to revolutionize production (increase relative surplus value); on the other hand, the increase in absolute surplus value through the imposition of a new labor regime on American workers that will systematically reduce the working class to lower living standards;
- on the one hand, the incessant production of non-marketable goods and on the other, the increasingly dire need for productive, marketable goods;
- on the one hand, the accumulation of wealth while on the other, the accumulation of poverty, subservience, impotence, and despair.

All such contradictions are indicative of a decaying and dysfunctional system – dystopia in the making. And yet, as Marx signaled to us, such moments of crisis also reveal what is already present in the system, the seeds of a new society based on a new mode of production.[160]

Some will note our omission of previous attempts to build socialism, such as in the former Soviet Union, China, Cuba, etc. In response, we would propose that conditions *there* and *then*, i.e. their historically determined circumstances, were fundamentally different from those that now characterize the U.S. (and global) crisis. All

[159] Paresh Chattopadhyay, "Passage to Socialism: The Dialectic of Progress in Marx," *Historical Materialism*, vol. 14, issue 3 (2006), pp. 45-84.
[160] See for example in Marx, "The Role of Credit in Capitalist Production," chapter xxvii in *Capital*, vol. 3 (Moscow: Progress, 1959), pp. 435-41; also chapter xv, "Exposition of the Internal Contradictions of the Law," pp. 263-64.

occurred in the absence of a structural, indeed terminal, crisis of both U.S. and global capitalism (understanding that these two crises are operating under related but far from identical temporal and spatial scales).

As far as contemporary revolutionary movements and traditions, the party/movement we propose should be in constant communication with parallel efforts elsewhere; in other words, we must learn as much as possible from others (as they should learn from us) even as we confront the particulars of "our own" situation: for example, combating "American exceptionalism." To this end, we recognize that the struggle against the ideologically inculcated fear of the word "socialism" can and must be overcome through theory and practice. In so doing, we will have to confront our ongoing polemics about whether we need to build socialism or communism, and in carrying out this discussion we would do well to consider some recent scholarship that clarifies Marx's own understanding of the terms.[161]

Thus far, efforts to move in the direction of democratic, communal, or even some socialized forms of ownership rooted in local control over resources ultimately reach their limits due to lack of capital, technology and expertise, in great part, the result of the particular nature of the crisis itself, especially the lack of a new New Deal that might have pumped more capital into rebuilding local and regional infrastructure. These conditions open up opportunities for a democratic-socialist politics fueled by a mass movement that ultimately contests for state power in order to swing resources in its direction. A party/movement will need to figure out how to do this step by step, encountering numerous challenges along the way, including the absolute necessity of eradicating racism and sexism in its newest and oldest forms. It also will struggle with the pervasive and stubborn problem of nationalism connected to a "socialist America."[162]

All this will require complex and detailed historical, economic, political, ecological and philosophical arguments contained in a party program that demonstrates to working people – to all of us – how we can move forward toward socialist transition. In

[161] Two recent articles by Paresh Chattopadhyay are noteworthy: "The Myth of Twentieth-Century Socialism and the Continuing Relevance of Marx," *Socialism and Democracy*, vol. 24, no. 3 (November 2010), pp. 23-45; "On the Question of Soviet Socialism," *Science & Society*, vol. 75, no. 1 (January 2011), pp. 107-13.

[162] To fight racism effectively, we in the U.S. must understand the role of the racist prison-industrial complex in destroying the lives of millions of black and brown folks while blunting class consciousness. See Michelle Alexander's important book, *The New Jim Crow* (New York: The New Press, 2010).

the process we must recognize that some among us are already doing it in numerous ways of expanding, or attempting to expand, the commons. The appeal and strength of a party that is powered by its movements and, in return, further empowers them in open and democratic political processes, can facilitate the development of a "socialist civil society."[163] In this way, the intentional communities that represent one form of the cooperative movement will not turn into the fetish of opting out, in the end either to be co-opted by the ruling class or be smashed by it. They must transcend themselves; they must become multiracial in leadership and membership; they must spread expertise among others like them, within and beyond their own communities. They must coordinate the building of local energy sources with the need to clean up the grid, which should be transformed, not abolished. To this end, party members (wedded to the movement) elected to local, state, or congressional office can expand the struggle for these objectives, understanding that such reforms at the moment may undermine the logic of capital accumulation.

As we said at the onset, the creation of a democratic-socialist party can only occur as the result of a discourse we hope this essay initiates. Why not begin by considering how a party might address the following objectives and tasks:

- Political struggle aimed at the nationalization of banking and finance, utilities, energy, transportation and health care. Nationalization would take the form of socialized ownership and control by the people, who would elect leadership of local/regional administrations; for example, a branch of a national bank – a real "Bank of America" – guaranteeing home mortgages, business loans, etc. Such branches would be operated by elected citizens with relevant expertise.
- A legislative agenda directing funding toward rebuilding local economies on the basis of small-scale private (opposed to capital accumulation) and collective (both small and large scale) ownership; such legislation could provide funding to existing initiatives – or to launch new ones – toward, among others, the development of urban agriculture; cooperative business; micro financing; and the

[163] Michael Lebowitz, *The Socialist Alternative* (New York: Monthly Review, 2010), p. 120.

generation, facilitation, and promotion of cultural forms and activities in the community.

- The rebuilding of an energy system based on sound ecosocialist criteria, which primarily means moving away as quickly as possible from the destructive sources of oil, natural gas and coal. Here, the party might do well to develop a two-pronged approach toward the construction of a sustainable twenty-first century energy grid: developing renewables whenever and wherever possible yet ultimately backed by the most advanced forms of nuclear power as the one source of large scale energy capable of maintaining the grid without interruption while efficiently powering energy intense industrial processes.
- The development of a socialist political economy that elevates utility and need over exchange and profit, particularly with respect to essential forms of production and services – always cognizant of the fact that this political economy is at best the transition to a society in which value itself is negated or transcended.
- The conscious effort to connect the aforementioned initiatives between cities and communities in building an independent, working-class political party that promotes all these initiatives at the national level – yet a national party whose existence and development are defined and driven from the bottom up, that is from the local, regional level and international levels – in a word, from the movements, themselves.
- The formation of a foreign-policy that seeks to dismantle a moribund capitalist empire driven toward endless war and barbarism with one that aims at mutual understanding, cooperation and the pursuit of peaceful resolution to conflict whenever possible.
- The forging of democratic-socialist principles deeply rooted in collective efforts to realize shared-life interests as the basis for individual fulfillment.

We know that in the midst of a deepening structural crisis where recovery under capitalism is not possible and fascist processes continue to intensify, our attempt to create and build a mass-based democratic-socialist political party must be grounded in a theoretical grasp of this world-historic moment. Yet we are painfully aware that this

moment is without precedent. Hence, we can find some solace in Marx, who pondered a similar state of affairs in Europe in the mid-1870s: "Every step of real movement is more important than a dozen programs."[164] As it was for Marx, our efforts will demand great individual and collective resolve as we engage in the routine struggles in the face of theoretical uncertainty. This will require an unequivocal commitment to the needs, aspirations and hopes of working people regardless of race, ethnicity, gender, age or religious conviction. It will require the constant rethinking and deepening of socialist principles and values, as counterrevolutionary forces distort their meaning in unprecedented ways. It will require great courage of those who, at any moment, might find themselves thrust into leadership and in so doing coming to grips with our conscience, that which makes us truly human, our capacity to make the right choice for the right reason. Ultimately, it will require us to be thinkers whose outrage with the deepening descent into dystopia will ironically plunge us into action.

Finally, as we have argued from the onset, the character of this crisis will drive some of us forward while others, perhaps many more, will seek accommodation and acquiescence to the so-called "new normal" – accepting a systematic reduction of wages resulting in a new regime of labor that will lower living standards, fuel the decline of education at all levels of American society, foster a cultural mindset characterized by contempt for science and scientific thinking – all contributing to the mother of all ironies, learning how to be ignorant. Such is the character of class struggle in America today. Consequently, we will see more of what we have witnessed since the beginning of the Great Recession, that is, the frustration and anger of déclassé elements, i.e., the Tea Party, channeling their politics of resentment toward mythical enemies – liberals, Muslims, Latinos, gays and lesbians, the socialist-fascist-totalitarian Obama – who suck the lifeblood from responsible, hard-working, true-Christian, "authentic" Americans. Meanwhile, the crisis will also fuel the growth of more disorder, disunion, and dystopia. Efforts to build working-class unity and the forging of a democratic-socialist party will be more difficult as the counterrevolution attacks proletarian interests and political actions. Simply put, we will have to build our party in the face of a nascent, American-

[164] Marx to Wilhelm Bracke, May 5, 1875, *Collected Works*, vol. 45 (New York: International, 1991), p. 70.

style fascism – the absolute rule of finance capitalism – while society plunges deeper into anarchy and the abyss that is surely ahead without a socialist alternative.