

16. Energy and Social Reproduction

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“Listen! We ought to be in a wood choppers union! Chop wood for breakfast! Chop wood, wash his clothes! Chop wood, heat the iron! Chop wood, scrub floors! Chop wood, cook his dinner!”

(Miner’s wife in *Salt of the Earth* 1954)

“When oil prices rise... the costs of variable capital will also increase as the costs of subsistence for labor are tied to the costs of oil and other energy sources. Because cheap energy inputs have been able to reduce the subsistence costs for the world’s working class, an increase in energy prices caused by oil production peaking will see a dramatic rise in food, electricity and transportation costs, all of which the capitalist class will try to get the working class to pay for through a significant decrease in real wages” (Keefer 2005: 55).

There has been little written about energy and labor. Even less has been written about energy and social reproduc-

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tion, either from those analyzing social reproduction or from those analyzing energy. George Caffentzis' "The Work/Energy Crisis and the Apocalypse" (1980) – a classic connecting the crisis of the Keynesian mode of accumulation with the struggles against work both in the factories and in the kitchens and bedrooms and fields of the world, is one of the few, outstanding exceptions. Given that energy is a vital means of subsistence, as well as means of production, this is somewhat surprising. In this paper, I argue that to understand the current so-called "energy crisis" and a possible future "transition to renewable energies and/or post-petrol future" it is crucial to consider the question of social reproduction, and the related questions of primitive accumulation and dispossession. How might changes in energy production, trade and consumption effect relations of reproduction (and vice versa)?

There are three broad (and interconnected) areas which I will discuss here: a) energy as a means of reproduction/subsistence b) energy resources exist on land, c) unwaged labor in the non-commercial energy sector. Following these three sections, I will go on to discuss some questions and uncertainties relating to a possible "transition" to a post-petrol energy scenario, and/or a transition to renewable energy.

Energy as a Means of Reproduction/Subsistence

Energy is a crucial means of subsistence, due to its importance for food production and preparation, shelter, lighting and heating especially.

“Energy is the fundamental prerequisite of every life. The availability of energy is a fundamental and indivisible human right... It is violated billion-fold” (WREA 2005).

This poses the question of ownership, control and access to energy production and consumption, and which purposes it serves. Namely, does it serve the needs of accumulation of capital, or subsistence needs? As with land and other means of subsistence, the degree of separation between the producer and consumer becomes of great importance. On the one hand there is the question of whether energy is a resource held in common outside of market relations or whether it is commodified, on the other hand is, to the extent that it is already commodified, to what degree is this the case. It is important to understand the processes through which this separation is established, reproduced and expanded, or is resisted, subverted and reduced.

According to De Angelis (2001) differing degrees of separation between workers and means of production may exist, and this separation is neither permanent nor given, but is the subject of a continual struggle. Primitive accumulation... was capital’s effort to regain and reassert control once it had lost it due to limits set by workers’ struggles.

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To the extent class conflict creates bottlenecks to the accumulation process in the direction of reducing the distance between producers and means of production, any strategy used to recuperate this movement of association is entitled with the categorization. . . of primitive accumulation (De Angelis 2001:13-15).

Common or public energy resources, from forests to oil fields, are facing increasing privatization, and energy markets are being liberalized world-wide through regional and multilateral free trade agreements, such as NAFTA, FTAA, EU, or WTO. This is greatly affecting prices and people's ability to access reliable sources of energy, regardless of whether it is clean or dirty. Privatization of forests, through the WTO (World Trade Organization) forestry and logging agreement, is of particular importance since forests until now have been communally owned throughout much of the world, and most of the world's population still depend on (non-commodified) biomass fuels for heating, cooking and lighting. This [privatization] process is reminiscent of the enclosure of commonly owned and managed woodlands in Europe over the course of several centuries, that was integral to the emergence of the European-centred capitalist world-economy. (Marx 1842; 1976: 877-896)). This world-wide process is greatly undermining people's capacity to be "self-provisioning" (Perelman 2007).

Once energy is commodified its pricing plays an important part in social reproduction. Key issues are the magnitude of the price and who pays for it. Does capital or labor pay for it? Waged or unwaged labor? Throughout

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the 20th century, especially in the post-World War II period, the availability of “cheap” oil has greatly influenced the cost of reproducing labor. On the one hand, in high wage countries such as the USA, the cost has been much reduced through cheap food, heating, electricity etc, enabling a massive increase in the ratio between surplus and necessary labor.... On the other hand, energy intensive (and consequently money intensive) Green Revolution agriculture has contributed to processes of dispossession throughout much of the world (especially in Asia), undermining subsistence agriculture, and pushing people towards migration to cities or production for the world-market. These mechanisms have been vital in ensuring capitalist forms of labor reproduction and containing class struggle.

However, at times, it has been advantageous for capital to increase the cost of reproduction, as this has enabled it to indirectly attack wages. In the mid 1970s, following an intense period of social struggle throughout the world, including the USA, in which the struggles of waged and, above all, the non-waged workers converged provoking an accumulation crisis (Federici 2006), inflation was used to indirectly attack wage levels. Raising oil (and consequently food) prices was a crucial part of this process

In the current inflation this kind of manipulation of money has been joined by another – the administered increases in the prices of oil. . . have been achieved by restricting the availability of [this] commodity to back up the price increase. . . The resultant price increases, that is, the increase in the amount of money required

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to obtain a given amount of commodity value, have acted to undercut working-class wages all over the world and are part of a world-wide counteroffensive by capital to stem the wage offensive (Cleaver 1979: 168).

Such an attack on wage levels had the effect of shifting the costs of reproduction further onto unwaged work, mainly carried out by women in the form of domestic work.

The problems that women are facing appear particularly serious given the economic alternatives we are currently offered, as they emerge from the current debate on the “energy crisis” and the feasibility of a growth versus a non-growth economy. It appears that no matter what path will prevail, women will be the main losers in the “battle to control inflation” (Federici 2006:75).

But despite the renewed expansion of the world-market and worldwide privatization and enclosure process, seeking to shift the balance of power in favor of capital (Midnight Notes 1990; Von Werlhof 2000), resistance has not been missing. As De Angelis (2001) writes:

“any discussion of alternatives within the growing global anti-capitalist movement must pose [the question] of direct access to the means of existence, production and communication: the issue of *commons*” (2001:20, italics in original).

Next to the struggles for control over land, there is perhaps no area in which such struggles for “commons” ...

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are more central than in relation to the two interrelated processes of the expropriation of common energy resources and increased energy pricing. Many if not most of these struggles have been internationally networked, with local struggles inspiring and informing one another, as well as supporting each other through a range of global networks.

Anti-privatization struggles seeking different forms of common, collective, cooperative or public ownership are currently one of the major characteristics of the energy sector worldwide.... There has also been a marked increase in the resistance to energy pricing hikes. Early examples of this resistance occurred in Italy in the 1970s, through the movement for “self-reductions,” in which entire neighborhoods organized to decide how much they would pay of their utility bills, their rents and, at times, transport costs. These struggles were explicitly linked to wider struggles over social reproduction and the “social factory” including “wages for housework” campaigns (Ramirez 1975).

Since 2000, rising oil and fuel prices have also been the source of major street protests, blockades and rioting in Indonesia, Nigeria, UK, France, Belgium, Germany and Italy (Keefer 2006). In Karnataka, India, there have been intensive struggles between peasant communities, electrical companies and police over electricity pricing. Similar processes have been occurring since 1992 in indigenous communities in Chiapas, Mexico. In the USA, welfare organizations, such as the Kensington Welfare Rights Union, have begun resisting rising utilities bills. Many of these struggles have been led by women, who frequently bear the brunt of rising energy costs through an increase in unwaged domestic labor....

Energy Resources Exist on Land

Most energy resources exist in rural areas. To harness it capital must expropriate land, or at least control it. As companies are given expanded investment rights over an increasing geographical area throughout the world, as environmental constraints on investment are removed and ownership is forcefully transferred from peasants to capital, the territorial autonomy of rural communities is undermined (Midnight Notes 1990; Von Werlhof 2000)... [Lands] that contain energy resources are particularly central to this process.

Oil, gas, coal and uranium exploration and extraction, as well as large scale hydro-electric dams are all having a major social and environmental impact on communities in the vicinity of the energy sector activities. This is producing major social conflicts relating to land rights, pollution and displacement. In the case of oil extraction, there are struggles over displacement, pollution and associated violence in Nigeria, Colombia, Ecuador, as well as several other countries. Particularly affected are: peasant, indigenous, Black communities (in Latin America) and fishing communities, many of which still have communal land ownership structures. Tactics used in such struggles have ranged from parliamentary struggles, to autonomous community organizing, street protests, non-violent civil disobedience, and (in Nigeria) armed struggle and kidnapping of oil company employees. In Colombia, the U'wa Community even threatened to commit mass suicide in the face of continued activities from OXY (Occidental) Petroleum. The construction of the world's biggest oil pipeline, the Ceyhan-Tblisi-Baku (BTC), pipeline has

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also provoked protest from land rights and environmental activists, both within the affected countries, and by their international supporters. In Venezuela, indigenous peoples are facing displacement from coal mining activities, from a range of state owned and foreign multinationals. In the USA, Navajo communities are being displaced in Black Mesa, in Arizona, by the coal giant Peabody Coal. Millions have been displaced throughout the world by the construction of large hydro-electric dams, in India, China, Brazil and Indonesia, amongst others. As the nuclear industry gears up for a renewed expansion, anti-nuclear struggles have also grown in strength, both in areas where power stations are to be sited, as well as areas where uranium is mined, like the Indigenous territories within the Nevada/Arizona desert of the USA or the uranium dumps and mines on aboriginal land in Australia. As with struggles over the ownership of energy resources, these, and many other struggles associated with energy-related conflicts over land use have successfully sought international allies.

Unwaged Labor in the Non-Commercial Energy Sector, the Pillar of Cheap Reproduction of Labor

“Since [WW2] nations of the global south have been transferring energy resources to nations in the global south at a steady rate. A number of oil-exporting countries have achieved impressive levels of economic growth on the basis of

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this trade. However, the main effect has been to intensify long-standing global inequalities in levels of energy consumption. . . throughout the modern period core states have attained much higher levels of per capita commercial energy consumption than their semi-peripheral or peripheral counterparts. . . the average citizen in the United States consumes five times as much as the world average, ten times as much energy as a typical person in China, and over thirty times more than a resident of India. Even in such major oil exporting nations as Venezuela and Iran, per capita consumption of commercial energy resources is less than one half and one quarter of the US average, respectively” (Podobnik 2002: 254, 255).

In addition to being a result of the expropriation of energy resources described above, the existing inequalities in the rates of energy consumption are also the product of a hierarchically defined global division of labor in the energy sector. The reproduction of labor in the US, subsidized by “cheap” energy, is also subsidized by the exploitation of labor in other parts of the world. This includes both waged and unwaged labor, much of it women’s labor. Although Mies (Mies 1986) does not talk specifically about energy, her general arguments nonetheless apply to this specific situation.

The complement and essential pillar of commercial energy in the world-market is non-commercial energy combined with non-waged labor. Throughout much of the world, especially in rural areas, people do not satisfy their

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energy needs for subsistence exclusively, or even predominantly, through the commercial use of energy, but rather through the non-commercial use of dung, wood and other biomass that provide heat, lighting and cooking fuel, as well as animal traction. More than one third of humanity, 2.4 billion people, currently rely on these fuels for their daily energy needs. In Sub-Saharan Africa (excluding South Africa), between 40 and 90% of all energy consumption is from biomass fuels, and it is common for rural areas to have electrification rates of less than 5%, all of which greatly impacts on the work (and health, due to long walks, smokey kitchens etc) of women (Mapako and Mbewe 2004:16, 20, 23). Collection of such fuels is most commonly done by women and children, as part of “domestic work” without recourse to wages and the (limited) protection that the so-called “formal economy” and its trade unions, or other organizational forms, may be able to offer, as exemplified by the quote from *Salt of the Earth* at the beginning of this essay (Warwick and Doig 2004).

The cost of reproduction of labor in these areas is brought down even further by this unwaged labor, a double edged sword. On the one hand capital pays nothing for it, by extracting women and children’s unpaid labor, on the other hand the people concerned are paying the costs of their own reproduction while not maintaining independence from the money economy, but rather resting at the lowest, most excluded layer of the hierarchical global division of labor (Perelman 2007). The importance of privatization of forests must be seen in this context. The privatization of forests means that journeys to fetch firewood and other biomass materials increase in distance and hours required, and so do the legal risks, as access to

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these materials requires encroaching on newly privatized land (i.e. poaching), all of which is borne by unwaged workers, mainly women and children. At the same time, communities which formerly relied on non-commercial energy sources are increasingly forced to rely on energy and fuel inputs purchased with money.

Questions and Uncertainties with Regard to Renewable Energy

All of the above raises important questions for any possible transition to renewable energy. Crucially, on whose terms will the process be and to what ends? If the cost of energy rises, who will pay for it? Will capital be able to shift the increasing costs of reproduction onto labor (especially unwaged domestic and agricultural labor, predominantly carried out by women) or will labor, and in particular women, refuse to accept this? What new struggles are already emerging and likely to increase in the future?

How will changes in the energy sector change the relation between capital and labor? Between waged and unwaged labor? How will different sectors of the worldwide division of labor relate to one another?

Rural communities are, in theory, ideally located to benefit from renewable energies and to lead the way, since it is precisely such areas that are richest in natural resources such as wind, sun, biomass, flowing rivers, animal wastes etc. Yet, in practice the situation is very different. As already described, the current period of expansion of the world market, is an attack on rural communities through-

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out the world, a renewed process of primitive accumulation and incursory investments. Given that renewable energy resources exist throughout most of the countryside, and not just in specific geographical areas as is the case with oil or coal, it is possible that renewable energy at the service of capital accumulation could result in even harsher patterns of displacement and appropriation of land than those brought about by other forms of energy. Black Communities in Colombia are being forcibly displaced from their land by paramilitary violence so that the land can be used for monoculture plantations of African palm to be used as fuel oil. Communities in Indonesia and Malaysia are facing ecological destruction for the same reason. Industrial wind farms serving capital accumulation have displaced peasants, provoking resistance in Mexico and China. In China three peasants were killed by police in the course of such resistance.

Finally, there is the issue of food – agrofuels compete with food crops, provoking a whole new process of struggle around land use and ownership and around food prices (e.g. the current tortilla crisis in Mexico is related to corn use for ethanol, and in Brazil landless movements are taking on the sugar industry (also related to ethanol).

Will new energy sources be able to serve capital accumulation in the same way as existing energy sources have, in particular in its role in social reproduction, or will they provide a material basis for the long term construction of alternative social relations of reproduction based on “commons” and reduced dependency on the wage?

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