

Embodied Materialism in Action: An Interview with Ariel Salleh

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*Ariel Salleh has been working at the intersection of ecology, feminism, and materialism since the early 1980s. Her emphasis on the need for an embodied materialist analysis of global capitalism offers a crucial antidote to the objective idealisms of postmodern and poststructuralist thought. Her seminal work *Ecofeminism as Politics: Nature, Marx, and the Postmodern* (1997) seeks to politicize ecofeminism, a branch of ecological thought often imagined to be “murky” and “essentialist,” particularly in its 1970s iteration. In *Ecofeminism as Politics*, Salleh introduces the ideological formation *Man/Woman = Nature* to underscore how the aligning of “woman” with “nature” allows for the instrumentalist appropriation of both nature and woman-as-nature. Climate change, overfarming, ocean acidification—all ecological crises stem from this basic ideological structure. In other words, all of these crises are sex-gendered. For Salleh, this is the hidden complication subtending the human/nature split, holding it in place despite the work of otherwise astute critical analysis. Her work is thus a key intervention into the fields of Marxism, socialism, and ecology, and it was with the intent of bringing the insights of feminism into conversation with scholars striving after eco-socialist aims that Salleh joined the editorial board of *Capitalism Nature Socialism* in 1988, a position she continues to hold. Salleh’s embodied materialist understanding of nature, society, and capitalism has evolved through decades of activist work. She has been a co-convenor of the Movement Against Uranium Mining, founding member of the Greens, a participant in local catchment campaigning, the representative ecologist on the Australian government’s Gene Technology Ethics Committee, and an original signatory of the 2001 *Eco-Socialist Manifesto*.*

Polygraph spoke with Ariel Salleh over email in Fall 2009.

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Polygraph. *You've had a lot to say about the conceptual dualism of humanity versus nature over the years, but there are contributors to this issue who would contest any notion of nature—even calling for an “ecology without nature.”*

Ariel Salleh. Well, I think we are talking about different preoccupations here. Tim Morton's thesis in *Ecology Without Nature* is rather like Judith Butler's ejection of the idea of woman from feminism.¹ Each author sets out to demonstrate how language is never adequate to its object. Yet paradoxically there is a de facto quest for positivist certainty beneath this restless constructionism. And it seems to me that Morton's deferrals actually end up reifying his elusive nature and personifying it as a trickster, a move that echoes Donna Haraway's earlier seduction by the coyote figure.² Three decades of poststructuralism, “the linguistic turn” and its flight from essentialisms, suggests that the voyage to conceptual purity inevitably founders in a semantic swamp. On the other hand, it is possible to acknowledge politically fraught terms like nature or woman and yet still work with them. In fact, if political theory is to be grounded in praxis, it has to bracket out or suspend these epistemological nuances to reach people in everyday in life. To reinforce the ecological resistance of ordinary women or to encourage sex-gender sensitivity in activist men, one must use the words they understand. This means working both in the ideological medium and against it at the same time—with people, so that they can develop reflexivity. Morton himself is vaguely dismissive of ecofeminist politics, though in a rather unscholarly way, without citations to substantiate his view. However, if he engaged with our literature, he would find that it resonates with his desire to push ecocriticism deeper than deep ecology by taking it to the realms of “dark ecology.” Morton's rejection of deep ecology's naïve entrancement with the scientism of systems theory was already part of our thinking 25 years ago.³ The ecofeminist analysis also predates Morton's use of Adorno's philosophy of non-identity, the chiasmus, and quantum theory, to challenge the nature/humanity dualism in a deconstructive way.⁴

For there is no denying it—humans are nature in embodied form. If people were not earthly flesh, the metabolism which keeps us alive could not happen. This humanity/nature split is thoroughly historical, rooted in depth psychology, a *dispositif* of capitalism, and pre-capitalist patriarchal formations before that. But the static essentialized deformation of nature should not be confused with the material potentiality of nature, just as the deformation known as womanhood should not be confused with the material potentiality of a specific embodiment. Just as humans exist in continuity with nature, so beneath culturally inscribed sex-genders there is no binary opposition either, but a continuum of body types and dispositions.⁵

Human knowledge of the green wild and of embodied nature is corrupted by politically contaminated discourses but this does not mean that such entities have no existence outside of language. That popular, if fading, postmodern assumption simply defies commonsense; so where did it come from? Certainly universities in the global North have had a fair bit to do with propagating it. As materialist ecofeminists observe, capitalist patriarchal economies rest heavily on a profound human alienation from nature, one that is generated in the exploitation of people's labor and

resources. The rationalization of this condition permeates all capitalist practices and structures, including hegemonic institutions like the academy. The radical grassroots feminism emerging in the 1970s was quickly contained and sanitized by a new discipline called gender studies. Soon enough, more critical strains of environmentalism would be de-politicized by cultural studies. If the practitioners of poststructuralism began as methodologists, they soon came to serve as ontologists for capital.

PG. *To further problematize the humanity/nature divide, what are we to make of iterations of the binary that aligns European men with nature against the influence of an overly feminized culture? How do such figurations complicate the nature-culture binary from which ecofeminism draws so much of its interpretative strength?*

AS. I've not come across any research that scrambles the masculine/feminine, history/nature, progress/regress pairs which ecofeminists have used to expose the operations of the globalizing mindset. But I can see how somebody in an idiographic field like literature or cultural studies might turn up odd instances that slip through the dualisms. However, the only thoroughly "feminized cultures" I am aware of are residual matriarchies in South China and Mexico, and these are no threat to the telepharmo-nuclear complex. The Biblical creation myth puts Eve in with the serpent, while Adam stands with civilization and a transcendent father-god. So too, during the European witch burnings, women were accused of bestiality. This said, the traditional concept of woman is hybrid. Sometimes she is constructed as the madonna (tamed by patriarchal mores), and sometimes as whore (filthy nature). But each of these femininities is an object of resourcing by men. In the private sphere, the madonna/mother/housewife "mediates nature" for the family; but even in public employment, women service workers are implicitly understood as "closer to nature" and receive significantly lower wages than men do. Of course, living women are neither of these essences—madonna/whore—but a blend of many learnings including so called masculine attributes. The Muslim argument that women should cover themselves because of men's potent natural drives adopts the madonna route to oppression, but the dualism and othering process is still there. Occasional identifications of men with nature appear in the utterings of down-home right-wingers. But theirs is an image of masculine nature as brute strength and control—which does not upset the familiar categories too much. I think the question to ask is: who is subject and who is object in these formulae? These irrational strictures will get to be assembled in different combinations in order to legitimate the exercise of power.

In the very welcome anthology *Material Feminisms*, brought out by Stacy Alaimo and Susan Hekman in 2008, a number of academics visit the ecofeminist epistemological terrain by addressing the humanity/nature split.⁶ As Alaimo observes, for too long nature and the biological "served as feminism's 'abject'—that which, by being expelled from the 'I' serves to define the 'I.'"⁷ What is so interesting about this collection of essays is that women who were previously taken with the linguistic turn—Elizabeth Grosz, Donna Haraway, Vicki Kirby—are now taking seriously "the very stuff" of bodies and natures. Theirs is not always a full emancipation from the body

as inscribed text, but a new appreciation of material agency is emerging. Alaimo herself uses the term “trans-corporeal” to describe the space between humanity and nature as a site for new theoretical work. For indeed the body comes to know itself, through its environmental interactions. Discursive allusions and permutations can carry on to infinity, but political action calls thinking people to test their analysis in material doing. Here, the woman = nature metaphor draws attention to the massive theft of women’s reproductive labors, a theft that is the very foundation of capitalism. This woman = nature metaphor speaks of resourcing; an appropriation of time and energy that might be quantified as “embodied debt.” The paradigm shift is not complete though. The move from an elusive postmodern “materiality” of the corporeal body is just a beginning.

The next step is to spell out women’s unique implication in the humanity-nature metabolism. Then, this must be articulated with the materialism of economic domination. For this, the linguistic turn will be complemented by multiple lenses and transdisciplinary thinking. In addition, it is impossible to write sense-fully about politics without practical experience at the grassroots. My own activism has criss-crossed the movements from social justice to ecology and back, and I have found that analysis of the humanity/nature binary helps interconnect the diverse political strands. The positioning of humanity (read man) over nature marks Eurocentric knowledge-making from religion to philosophy to science, and the same convention is complicit in the breakdown of Earth life-support systems. Yes, I am saying, for example, that climate change is sex-gendered. The domination of nature is intrinsic to masculinity as we know it—a preconscious but social identity for whom the mother (and women, as bodies in general) exists as primal ground.⁸ The sublimation of this attitude is amplified in geopolitics when the Intergovernmental Panel on Climate Change reduces the regenerative powers of nature (and women) to “source and sink.” The sociological effects of this sex-gender dissociation play out in violence on women, economic dispossession, and political silencing. But the humanity/nature binary can undermine the efforts of radical movements too—from deep ecology on the Right to eco-socialism on the Left. There will be no lasting change until this libidinally charged sex-gender rift is recognized as a political phenomenon. No easy matter. The call for historical reflexivity threatens to open up an abyss of doubt; masculinist disorientation. It is far easier to fantasize a higher-order control over the meat of nature through technological transcendence of its/her powers. By my ecofeminist interpretation of Michael Hardt and Antonio Negri, this “affective” management is the real agenda of the cognitariat.⁹ Meanwhile, you can be sure that “Mother Earth” will continue to carry the scientific risks and mop up the industrial spills...

There is a fair way to go in actualizing this layered political understanding. Postings by North American knowledge workers on the ENVIROSOC Listserv offer another glimpse of the humanity/nature disjunction—and indeed the limitations of “immaterial labor.” Climate change is typically objectified here and treated at one remove, as a matter of policy manipulation or technics. And no surprise that a recent sex-gender challenge to List readers from one Clay Grantham at the University of Oregon, fell into an electronic vacuum. The posting read:

An “elegant” collapse seems very needed at this time in history. Of course, having an elegant collapse, rather than an ugly collapse, would have to go hand in hand with freeing ourselves from the patriarchal cultures/structures that have subjugated and destroyed all non-patriarchal culture over the past few thousand years... I increasingly see patriarchy as the root of authoritarianism, imperialism, global capitalism, racism, and ecological degradation (all of which closely overlap). Nothing inherently wrong with men. Just a culture that privileges aggression, emotionally stunts everyone, subjugates women as objects, etc. We are so immersed in it that it’s like the water a fish swims in. Most men, and even women, just take it for granted. Otherwise “enlightened” people end up reinforcing it at every turn. Time to turn it around.¹⁰

The ENVIROSOC List goes quiet when sex-gender difference is raised in the context of ecological questions, but you’d expect better of sociologists. After all, it’s simply a matter of applying one aspect of the discipline (gender analysis) to another (environmental behaviour), and bringing these together, hopefully in tandem with a critical Marxist perspective. Last month, the Listserv had American Sociological Association members congratulating themselves on the high visibility of their professional contribution to the climate change debate.¹¹ But not a single woman sociologist writing about climate was named. As noted already, a significant body of research is uncovering the fact that global warming—causes, effects, solutions, and policies—are sex-gendered and it is plain that the lifestyle choices of affluent white men are primary drivers of the crisis.¹²

PG. *Were you going after this sort of one-dimensional thinking in the exchange with John Bellamy Foster and Paul Burkett published by Organization & Environment (2001)?¹³ As we recall, this took the form of a conversation over how to schematize methodological articulations of the nature of reality, or the reality of nature. Can we revisit this debate?*

AS. Yes, the essay “Sustaining Nature or Sustaining Marx?” was about hidden sex-gendered tensions in ecopolitical thought—among other things. Don’t get me wrong, Foster and Burkett, separately and together, are major theorists of eco-Marxism. And they are absolutely right that the environmental crisis will not be resolved until capitalism is dismantled. However, if the end of capital is a necessary condition for sustainability, it is not a sufficient one. For capitalism itself is a modern version of patriarchal social relations, and so a parallel political devolution is called for. In other words, the ties between hegemonic masculinity and the diminishment of nature and of women still have to be unravelled. So far, neither Foster nor Burkett carry their work to this level, which means that their political remedy for the emancipation of nature may be self-defeating in the end. Sex-gender silence is prevalent across the social sciences, among political economists, environmental ethicists, and so on—and as I say, the bias is not just intellectual but fueled by embodied libidi-

nal energies. Perhaps some kind of Reichian practice will be found to release these deeply enculturated attitudes?

PG. *So you differ with Foster and Burkett over the causal relevance of gender, but you share with them a determination to avoid positivist scientism, on the one hand, and culturalist, postmodern skepticisms such as deconstruction, on the other.*

AS. Not exactly this. I mean ecofeminist politics is itself deconstructive in its exposure of the triangular ideological dynamic between iconic “men,” “women,” and “nature.” To reiterate: you can’t address the oppression of nature by men without simultaneously addressing the oppression of women by men. This deconstructive moment has been a domain assumption of our politics from its beginnings—well before postmodernism came to academic ascendancy. But to say this, is not to say that we focus on the discursive. Environmental struggles cannot be resolved simply by some corrective intervention or symbolic displacement from nature to trickster. The man-woman-nature triangle is thoroughly material, solidly embedded in biological, social, and economic structures. A purely cultural or philosophical analysis has no purchase when it comes to engaging in political action over embodied processes—like rape or domestic labor. Postmodern feminist articulations that are limited to discursive politics risk idealism, becoming complicit with the invisible hand of mastery—the logic of the market, in other words.

I thoroughly agree with Foster and Burkett on the need for a materialist analysis vis-à-vis such idealism. But then again, they tend to apply the idealism label across a too broad spectrum of folk—basically to whoever interrogates some aspect of Marx.¹⁴ Curiously, I believe they do this, precisely because their own materialist stance is itself somewhat idealized and reified! What I mean by this is that Foster and Burkett bypass the concrete particularities of sex-gendering in everyday life; the embodied materialist character of social and natural relations—and even of theory making itself. The 19th century master text is thin in this area—which fact explains why classical socialist theory fails women, peasants, and indigenes—labor outside of the factory. So while I stand with Foster and Burkett in their opposition to capitalism and with their case for a materialist analysis, I try to draw them towards an embodied materialism.

PG. *But how is it possible to maintain a materialism, and a broadly realist ontology, without succumbing to positivism?*

AS. Foster and Burkett themselves aspire to a “non-determinist materialism” or “ecological humanism,” but this call has a certain rhetorical feel to it. As you point out they are at heart ontological realists—strong on economic structures, thermodynamics, evolutionary processes, and they convey a rather positivist reading of Marx. This is why my *O&E* reply to them sketched out a more critical dialectical approach, materialist, realist, yet reflexively aware of its own social construction and permanent re-visioning as a knowledge. But both of our realisms contrast with the postmodern idealism that has nature and society exclusively constituted by dis-

cursive practices. Take for instance, the “production of nature” theme popularised by Neil Smith and others in the 1990s. Nor is it any coincidence that Smith’s commodification-speak appeared in the hyday of neoliberalism.¹⁵ This tension between realism and constructionism seems to have been greater in a right-leaning U.S. than it was elsewhere. In the U.K., sociologist Peter Dickens’ critical realism offered a way to mediate the two epistemological extremes. In Germany, Jurgen Habermas’s blend of phenomenology with Freudo-Marxism gave permission for the subjective dimension.¹⁶ In any event, my agenda in conversation with Foster and Burkett was to bridge ecofeminism and eco-Marxism, to help build Left resistance as a more inclusive social force. As long as Marxists have no sex-gendered sociology of their own theoretical knowledge, this movement alliancing will remain very difficult. There is a certain irony here, because Bertell Ollman demonstrates that Marx himself was exemplary in his capacity to shift between lenses and levels of abstraction in order to unpack different facets of the political object.¹⁷ This dialectical method is about as far from positivism or naïve realism as you can get.

PG. How would you characterize the major fault line within ecopolitical thought, and how does the “embodied materialism” you have been proposing negotiate this conceptual difficulty?

AS. The globally dominant culture is crossed by many political fault lines—class, ethnicity, and so on—but in my view, the sex-gender fracture cuts beneath the others because it is not only sociological but heavily somatic, material, infused with psychological energies. To say this might be to risk the accusation of essentialism, but only if one assumes that nature and/or the body, is somehow separate from historical influence. Whatever its originary force field, the capitalist system diminishes the maternal body and sets up a predisposition for othering. The value of “reproduction” gives way to value in “production” and man-to-man exchange. Today, G20 politicians ramp up the machine—mining, banking, electronics—but the harnessing of natural resources and human labor for capitalist aggrandisement was always a substitute, an elaborate compensation for the denied abject body. What is needed right now is a movement coalition mature enough to acknowledge this; one ready to organise social life around the logic of regeneration.¹⁸ This would put human well-being before egoistic competition, industry, and war; put ecosystem integrity before accumulation.

An embodied materialism reaches out to re-ground Left thought and action by re-membering our human origin as nature.¹⁹

- Embodiment joins the human condition to its natural condition, making politics deeply and consistently material. This is a message for idealists and postmoderns.
- Embodiment joins theory to praxis, making politics historically sensitive and accountable. This is a message for realists and positivists.

- Embodiment joins the experience and knowledges of workers, mothers, peasants, gatherers, making Left politics whole. This is a message for all movement activists.

Too many political programs rest in ossified and disembodied belief systems, whereas an embodied materialism is a transitional idea, a tool for making change at this moment now. Once attitudes and structures shift, the ecofeminist critique can be discarded. Ecopolitical thought from eco-socialism to social ecology to deep ecology, stares into the humanity/nature divide but does not neutralise it. A tacit sex-gender investment, an embodied fault line, holds the regressive aspects of this opposition in place. Our analysis offers to cut the knot, but achieving this means personal reflexivity among activists. An energy shift.

PG. Among the obstacles, theoretical and practical, that deter steps toward political unity, how has the charge of gender “essentialism” hindered the collaboration you are seeking between the various green and socialist formulations?

AS. Morton writes that essentialisms are everywhere—and thus nowhere. Whole civilizations are built on them, so there’s nothing especially essentialist about ecofeminism. That charge has often been tossed off before any effort is made to understand what our epistemological claims actually are. And sometimes, the prosecutor has only a very hazy idea of what essentialism itself actually means. I’ve written about this in all sorts of places, but nothing beats Diana Fuss’s classic treatment of the problem in *Essentially Speaking*.²⁰ In our anthology *Eco-Sufficiency & Global Justice*, I explain how everyday life and political thought is rife with taken for granted essentialisms—bureaucratic, economic, humanist, liberal feminist, Marxist, and patriarchal ones. For example, a common essentialism in ecopolitics is the humanist assumption that men and women are implicated in environmental degradation in the same way, or that men and women are able to practice citizenship responsibilities in the same way. Our analysis has always been about deconstructing essentializing concepts and practices. Despite this, my writing has been subjected to this theoretic charge on several occasions. When the old chestnut turns up in eco-socialist or deep ecological writing, I interpret it as a resistance on the writer’s part to the embodied rethinking that our politics calls for.²¹ But when the charge is laid down by one’s ecofeminist sisters, then it’s a worry! One case concerned the rhetorical essay “Deeper than Deep Ecology” where I used the phrase “closer to nature” and all hell broke loose from literal minded readers who missed the teasing tone of the text.²² In another case, my discussion of the Man/Woman = Nature formula was stripped of critical context and turned into a case of heterosexist imperialism and homophobia. The author was apparently unaware that I’ve always considered sexualities to be a continuum (not binary) and was writing about the liberation of transgenders as early as 1981.²³

The attribution of essentialism is often a category mistake made by synchronic thinkers like analytical philosophers or people untrained in recognizing a text

designed as provocative intervention. The charge illustrates what critical Marxists call one-dimensional reasoning and as such, it plays into establishment hands. Unfortunately, the contemporary hegemony of measurement-based science favours fixed terms (parameters, variables) and identitarian logic, so there is an increasing tendency for scholars and publics alike to use or read words in a concrete essentializing way. I've noticed as well, that in U.S. writing, the noun (solid commodity) will be preferred to a verb (action, change). The phrase "the American People" is one such objectification, whereas the open adjectival form "American people" allows for difference and agency. As Herbert Marcuse pointed out some decades ago, capitalist culture is prone to one-dimensionality, where movement, complexity, and paradox in language is suppressed.²⁴ A dialectical methodology offers an antidote to this by focusing on meaning in transformation. Thus, woman is not an essence fixed for all time, but a being with multiple political potentials. So too, an embodied materialist perspective which has people's consciousness formed in the labor that they do, sees identities like transgenders, indigenes, men, etc. continually being re-made through their practical action in/on the world. We are all works-in-progress.

PG. *You have been using the journal Capitalism Nature Socialism as a platform for dialogue between eco-socialist and ecofeminist factions within the Left in the hope of initiating a kind of integrative stage of discovery. What is the current status of this hoped for fusion?*

AS. I joined the editorial of *Capitalism Nature Socialism* at its inception in 1988 and had a little round of the tables with eco-socialists Jim O'Connor and Dan Faber in 1991. Needless to say, I was often frustrated by Marxist misconstruals of our politics, that is, until Joel Kovel took over as chief editor in 2003.²⁵ At that point, I came forward with a plan for at least one ecofeminist article per issue to get eco-socialist readers engaging with women's writing. Then, in 2006, we brought out a 12 piece special issue entitled "Ecosocialist-Ecofeminist Dialogues," which symposium ran conversations between a variety of women thinkers and respondents.²⁶ I can't do justice to the richness of these texts here, but themes included the complicity of working class men and capital in the economic subsumption of women, the betrayal of women by international development agencies and Third World elites, the displacement of women from livelihood resources by designated national park enclosures, and the ecological impact of unnecessary technologies.

If my vocabulary appears more explicitly Marxist these days, it simply reflects my more proactive movement alliancing; but my domain assumptions have not changed much since I first started writing about ecofeminism. My hope is that eco-socialism will eventually join women's, peasant, indigenous' and ecological struggles in a single force for sustainability and global justice. But integrating these groups in political action means dealing with questions like:

- How are productive and reproductive labor interrelated?

- What is the political economic function of woman = nature or native = nature ideologies?
- How is gender constitutive of class and how is materialism embodied?
- Can eco-socialism coexist with cultural diversity and with ecocentric values?
- What technologies are compatible with democracy and sustainability?
- Who are the key agents of alternative globalization and struggles for the commons and resource sovereignty?
- Is a new theory of value called for to build an ecologically sustainable society?

Questions like these might be discussed on the Listserv of the Eco-Socialist International Network (EIN), but they are not. In fact, in the first two years of this List, 99 percent of contributors have been men, and I cannot think of any contribution by a woman that got a reply.²⁷ For sure, the *CNS* journal project brings ecofeminism into the peripheral vision of Marxists, but I have to say that the intellectual apartheid by which feminist writing is passed over as “women’s stuff” is not giving way yet. The odd citation of our work is not enough. Ideally, the comrades will engage with our ideas and apply them in their own theory and praxis.

PG. *In Eco-Sufficiency & Global Justice, you argue for a reflexive ecological economics, a hybrid discipline capable of investigating “all forms of debt”: economic, ecological, and embodied, as are incurred in the global production of goods. But how do we call these debts to account without at the same time falling back into the instrumental logic of the market?*

AS. Yes, written with a team of scholar-activists, *Eco-Sufficiency & Global Justice* does call for a critical examination of the objects and methods of ecological economics.²⁸ It highlights everyday problems like the systemic devaluation of women’s labor, the violence of development, the futility of neoliberal mainstreaming, sex-gender blindness in economic indicators, women for nature swaps, and the precarity of capitalist accumulation. The studies reinforce the ecofeminist focus on subsistence and reproductive labor, global struggles for the commons, solidarity economies and ecologically sound indigenous provisioning. Thus, the essays contest the ad-hoc separation of political economy (man), feminism (woman), and ecology (nature),

and suggest their triangulation as a single discourse dealing with meta-industrial labor, embodied debt, and metabolic value. These rhetorical challenges are directed at liberal professionals, but my forays into deep ecology and eco-socialism were part of the same agenda. Of course, I am not literally committed to the idea of building a new ecological economics, a remedial study that will remain necessary only as long as capitalism stands. Rather the book is about consciousness raising in ecological economics, to begin the process of structural change. By my reckoning, practitioners in this field are less bound by an overarching theory than say Marxists are, which fact could make the interrogation of sex-gender easier.

PG. So is this why you write that yours is not “an argument for reproductive labors to be waged, just as the case for ecological debt is not literally about monetizing nature’s “services” across the globe.” Do you reject the notion of postcolonial reparations then? How do you see your ecological and embodied debt being politically activated?

AS. This activation was already underway at the climate conversations of COP15 in Denmark, December 2009—even while nation-states were unable to agree on how to stabilize nature. The idea of reparations has had currency since Jubilee 2000 prompted the global South to ignore World Bank loan repayments. The group Acción Ecológica based in Ecuador and Belgium extended this to include a claim for the environmental damages of colonial plunder by Europe and the U.S. The movement of movements known as Climate Justice Action has ecological debt high on its list—no surprise that Tadzio Muller and other leaders wound up in jail at Copenhagen. The debt concept forces free riders of the global North to think twice about how international market economies really work, and I would be very happy if the U.N. or World Bank reversed South to North monetary flows. However, it’s not so simple. The methodological problem of commensurability—i.e. dollars for what exactly—might be met by lateral thinking combined with good will. But the political reality is more challenging. The recipients of reparation would most likely be the ruling class clones of the North who manage nation-states in the global South, so it is doubtful that impoverished communities would benefit from the payments. This is already written in the failed history of overseas AID projects and more recently, the faltering administration of REDD schemes in Africa or South East Asia.²⁹ There is no guarantee that money will reach the grassroots. Even more apposite is the material fact that financing the adaptation or mitigation of a damaged environmental metabolism does not itself restore nature. Reproduction of humanity-nature flows involves hands-on work by people who understand the history of their habitat in its complexity. This is the class of meta-industrial labor.

And so we move to embodied debt—an ambit claim, riding pillion to its political brother ecological debt. Environmental protection programs already acknowledge the need to honour indigenous expertise. In Northern Australia, rangers skilled in Aboriginal fire techniques are being employed preemptively for climate mitigation, and they receive a salary for their work. On the other hand, the depth psychology of sex-gender leaves mothering work in the trans-corporeal sphere unspoken and unwaged. While a country like Sweden has generous maternity leave provisions,

nowhere is the embodied debt accrued to women for the reproduction of society itself acknowledged in its multiple dimensions—biological, social, and economic. I support postcolonial reparations, albeit as a temporary corrective, and recommend sex-gender reparations as well. Even then, this symbolic gesture would be a solitary milestone along the road to global transformation.

PG. *We are very interested in your figuration of this “meta-industrial” sphere, inhabited by an apparently new class of labor whom you identify paradoxically as both outside of capitalism and completely integral to it.*

AS. The notion of “meta-industrial labor” is another strategic tool, to help open up hitherto closed notions of class. People who maintain the humanity-nature metabolism are certainly not a new class, but they have not been dignified by sociologists as a social class before this. For sure, there are cultural differences among meta-industrial workers, but materially speaking, these differences are less formative than the phenomenology of the embodied labor that they each do. The non-monetized work of meta-industrials like mothers or peasants not only sustains everyday life; in many “developing” regions, it backs up the infrastructure of global markets as well. I am thinking here of peasant contributions to the protection of biodiversity and soil quality and the indigenous management of water catchments.

Meta-industrial work, whether domestic care or organic farming, involves principles learned hands-on in the material world. It generates a vernacular epistemology replicating and reciprocating the thermodynamic circuits of nature. This labor is flow oriented avoiding entropy, it is intergenerational and precautionary; its unique rationality is a capacity for economic provisioning in a way that keeps “metabolic value” or ecological integrity intact. Unlike the extractive capitalist mode of production which sacrifices metabolic value to the manufacture of profitable commodities, locally eco-sufficient economies meet human needs without externalizing costs as ecological debt or embodied debt.³⁰ The seeming contradiction that you pick up on, with meta-industrials both inside and outside of capitalism at the same time, simply speaks the humanity/nature ideology. That is to say, these workers are inside of capitalism as labor resources and natural energy, but outside of capitalism when it comes to recognition of their humanity with a wage or citizenship rights. The most urgent project of 21st century politics is to draw together the social movements in a sustainable alternative to globalization, and here, it is critical that the voices of this invisible class be heard.

PG. *How would you compare your choice of this group as a kind of epistemically privileged loci to Marx’s choice of the proletariat as revolutionary class? Or for that matter, Slavoj Žižek’s “de-structured masses” of the urban slums, identified by him as the locus of 21st century struggle.*

AS. Marx, writing at the inception of the industrial revolution, was a relentless critic of capitalist depravity and of the metabolic rift it sets up between parasitic towns and ravaged countryside. Even so, Marx was hopeful that well-managed

industry would deliver material progress to humanity, universally. History would soon enough prove that technological progress for the few means “regress” for the many. Then, the proletariat, entranced by the cargo cult of consumerism failed to step up to its anticipated role of overturning their exploiters. Today, global capital replaces viable land based subsistence communities with mining and agro-industry; it throws factory workers into poverty; it captures governments to the service of a death wish. Enter Žižek. And here I have to confess to not reading his work, which strikes me as written for intellectual masochists! So I ask you—am I right to assume that his “de-structured mass” is similar to Andre Gorz’ disaffected “post-industrial neo-proletarians”?³¹ If so, my response is that while alienation and resentment may be good for fuelling political agitation, what is needed is people with aptitudes and skills for creating the alternative to industrial decay—a green, autonomous, just, and eco-sufficient commons. Neither Marx’s, nor Žižek’s, putative revolutionaries have this capacity—victims of industrial mal-development that they are.

Similarly, I would disagree with the thesis of Hardt and Negri that affective labor is the new hegemon and agent of qualitative change. The thesis panders a little too much to the urban cognitariat, a relatively small and atypical section of humanity.³² For sure, affective workers prioritize reproductive over productive relations, but that’s about as far as the convergence of autonomous Marxism and ecofeminism goes. As Hardt and Negri describe the constitution of subjectivity in contemporary societies, their vision of reproduction is fully embedded in the high tech infrastructure of capitalism. The ecological debt that keeps this lifestyle afloat goes unexamined; yet its material base is a vast thermodynamic cost against environmental sustainability. The embodied debt accrued by the cognitariat in its dependency on migrant cleaners or silicon slaves might also be problematized. Immaterial labor speaks the domination of the middle class economic North, but the majority of workers in the world exist outside of that electronic buzz. The meta-industrial class labors at the human interface with nature, and as such is very broad, transhistorical even, beyond cultural differences. One might argue that these caregivers and gatherers are actually autonomous labor in the true sense of the word, since their materially embodied work is not reliant on ecologically destructive technologies. As I contemplate the 2010 Peoples’ World Conference on Climate Change and Mother Earth Rights in Cochabamba, the claim of Hardt and Negri that the peasant class is a residue of history seems quite askew to me.³³

PG. *In your schematization, the meta-industrial worker operates in the global system where humans directly metabolize nature, where farmers, peasants, mothers, “oversee biological flows.” But agribusiness now affects the very possibility of such metabolic spaces, introducing hyper-industrialized modes of farming that bypass or speed up metabolic processes.*

AS. True, capitalism expands its global reach and must do, according to Rosa Luxemburg, to find new markets. But the Earth is not yet fully paved in concrete... In this respect the financial crisis may be a boon. You are right that self-sufficient agricultural communities are facing the onslaught of “green revolution” from the

World Bank, UNDP, CGIAR, transnationals, and corporate funded university research centres.³⁴ On the other hand, since 40 percent of the world's workers are farmers, there is still a great body of land out there, where eco-sufficient provisioning happens. In the global North permaculture and community gardens are becoming popular too. So do I sense a touch of the hyper-industrial fantasy in your devil's advocate question? Do you tease me with the capitalist soft sell? A deep metabolic rift exists between that abstract spatial imagination and kinaesthetically tended biological transformations. The rift is confirmed in that GM technology has not demonstrated its efficiency as a production method. Ecological feminists have been very focused on genetic engineering, most likely because it concerns reproductive labor.³⁵ But the argument for recognition of meta-industrial labor belongs to the alternative globalization movement at large, with its struggles for land and water sovereignty. These political actors gather at the World Social Forum in Porto Alegre; they sit in on Davos and meetings of the G8.

PG. What do you see when you turn your ecopolitical lens on the new U.S. administration? Nominally it has a green economic agenda and wants global mandates like carbon caps in the U.N. Framework, but the liquidity crisis and economic collapse threaten to push the environment to the back burner.

AS. I am horrified that every government response to the financial meltdown has been linear, more of the same: print more money, lend and spend, till the economy grows back again. Global elite decision makers don't recognize that liquidity and solvency are not the same thing. Disconnected, immaterial thinking is the order of the day. Looking at climate change, I'm not sure what the latest political moves in the U.S. are, but I know that they will have been made in dismal ignorance of how the humanity-nature metabolism functions. Besides the absurd cap and trade idea, I understand Al Gore has been talking up solar, wind, and geothermal spots in the deserts of the Southwest; a national low-loss underground grid; hybrid cars and retrofitted buildings.³⁶ A high tech wish list like this deflects attention from lived social and indeed, natural thermodynamic realities. And the capitalist economy dependent on permanent consumption remains intact with "the conversion to green product." This is because the construction of new solar cities will consume vast amounts of front-end fuels—in welding turbines and grids, road making, water supply, component manufacture for housing; air conditioning for shopping malls. What is offered is yet another mortgage—but this time an ecological one. Moreover, the new urbanization will mean a loss of farmland, possibly to be replaced by agricultural leases in the Third World. How then will the displaced peasants of Central America feed themselves? And what global warming pollution will be generated by the long haul of food back to the U.S.?

The Green New Deal plans that I have looked at also prime a faltering economic system, postponing consciousness-raising and fundamental structural change.³⁷ Many middle class critics of capitalism are suspended in ambivalence, because they cannot imagine any other way of life for themselves. Then it's business as usual in the

meta-industrial peripheries—where peasant farmers are corralled by the promise of green revolution, indigenous peoples seduced by mining royalties, and housewives by luxury goods. International activists who recognize the moral force of ecological debt demand monetary reparations for peoples in the global South. However, the expectation that technologies can mitigate global warming is very naïve. The material bottom line of an economy is a healthy integrated ecosystem represented by metabolic value. That cannot be bought, or restored by mechanical means. A sounder way to avoid human exploitation and natural entropy is to de-link from the global North and its hyper-industrial programs. Ecological debt is best resolved by people holding land for eco-sufficient provisioning. As for embodied debt, the thermodynamic draw down from the bodies of reproductive workers is still to be taken up by scholars and by the alternative globalization movement.

For me, hope resides in the fact that meta-industrial labor comprises the largest bloc of workers worldwide. The capacities of this class—peasants, mothers, gatherers—have never been fully colonised by eurocentric modernity or post-Fordist immateriality. The contradictory inside/outside sociology of this class gives it a special leverage over capitalism, because it is in principle autonomous, and while capital leans on the free services of meta-industrial workers, their gifts may be withdrawn at any time. This majority is central to transforming the present conjuncture—and that is not mere coalition pragmatism. It does justice to instate hitherto silenced political voices alongside those of urban workers and ecological activists. Now the question for intellectuals and activists in the global North becomes how to create the psychological space to listen and learn from meta-industrial skills and values. The World Social Forum has yet to enact its historical mission. What other options do we have? ■

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- 8 Clearly there are as many ways of performing a masculine identity as there are versions of the feminine, but I am referring to hegemonic masculinity here.

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- 14 Namely, John Clark, “Marx’s Inorganic Body,” *Environmental Ethics* 11 (1989): 243–58. Other idealists according to Foster and Burkett are physicist Fritjof Capra, philosophers Kate Soper, Val Routley, John O’Neill, and ecofeminist Salleh.
- 15 Neil Smith, “The Production of Nature” in George Robertson et al (eds.), *FutureNatural* (London: Routledge), 1996.
- 16 Peter Dickens, *Reconstructing Nature* (London: Routledge, 1995); Jurgen Habermas, *Knowledge and Human Interests* (London: Routledge, 1983).
- 17 Bertell Ollman, *Dialectical Investigations* (New York: Routledge, 1992).
- 18 The term “reproduction” is used here in its generic sense, applying to the maintenance of biological processes, economic relations, or cultural practices—and it dovetails with sustainability. The phrase “reproduction of capitalism” is a specific usage characteristic of Marxism and it is at odds with sustainability.
- 19 Salleh, 1997; and Editorial, “Moving to an Embodied Materialism,” *Capitalism Nature Socialism* 16 (2005): 9–14.
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- 22 Salleh 1984a. Subsequently, Noel Sturgeon, *Ecofeminist Natures* (New York: Routledge, 1997), following Zimmerman 1987, went on to use the piece as an essentialist prototype.
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- 26 Ariel Salleh, Editorial: “‘Towards an Inclusive Solidarity on the Left’, Symposium: Eco-socialist-Ecofeminist Dialogues,” *Capitalism Nature Socialism* 17 (2006): 33–38. The paired contributors were: Maria Mies and Victor Wallis, Ana Isla and Robert Chapman, Silvia Federici and Salvatore Engel-di Mauro, Terisa Turner, Leigh Brownhill and Stuart Rosewarne, Phoebe Godfrey and Jesse Goldstein, Ariel Salleh and Alan Rudy.
- 27 Eco-socialist International Network, EI-Netork-subscribe@yahoogroups.com.

- 28 Ariel Salleh (ed.), *Eco-Sufficiency & Global Justice: Women Write Political Ecology* (London: Pluto Press and New York: Palgrave Macmillan, 2009).
- 29 REDD stands for Reducing Emissions from Deforestation and Degradation.
- 30 On the epistemology of meta-industrial labour: Ariel Salleh, "Is Our Sustainability Science Racist?" Ockham's Razor program, ABC Radio National, October 4, 2009, www.abc.net.au/RN.
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- 32 Hardt and Negri, 2004, 88–89, 236–28, 349–350.
- 33 Peoples' World Conference on Climate Change and Mother Earth Rights, Cochabamba, Bolivia, April 19–22, 2010, www.boliviaun.org/cms.
- 34 CGIAR stands for Consultative Group on International Agriculture Research.
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- 37 For example, World Watch Institute, *Toward a Transatlantic Green New Deal: Tackling the Climate and Economic Crises* (Brussels: Heinrich-Boell Stiftung, 2009); ACF et al, *Joint Statement Towards a Green New Deal*, www.acfonline.org.