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UNCONVENTIONAL OIL
AND THE GIFT OF THE UNDULATING PEAK

ALLAN STOEKL

In the first part of this essay, I consider why the discussion over the likelihood of imminent "peak oil" has faded from public view in the last few years. I suggest that, due to the decline in demand (due to the recession) and the development of "unconventional" natural gas and oil sources, the "cost" of fuels has passed from the obvious rise in *price* to that of another dimension: the rise of hidden, "external" costs—a recession triggered by too-high prices, pollution, climate change, and so on.

I argue, moreover, that this externalized cost forever defies precise measurement. This is clear, for example, in the case of the "unconventional" production of gas in the "tar sands" region of Alberta. How can one measure the cost of drifting underground plumes of arsenic that may not show up for hundreds of years? All of this makes a precise calculation of "sustainability" just about impossible, while at the same time not absolving us—all of those living in the current fossil-fuel civilization—from attempting to calculate it.

In the final part of the essay, I suggest that our subjectivity—as consumers, as free agents—is itself an after-effect of the agency of oil: we as subjects are interpellated by oil. Thus one response to the unknowability of externalities—tied to the impossibility of the "closed economy" of sustainability calculation—may be a different model of agency, in which calculation is replaced, or supplemented, by the act of gift-giving. Most important, perhaps, would be the giving of the gift of oil "addiction" not to any recipient (or agent), but to a necessarily repeated forgetting.

Dans la première partie de cet article, j'examine les raisons pour lesquelles les discours sur la probabilité d'un imminent « pic pétrolier » sont passés depuis peu à l'arrière-plan. Je suggère que, à cause d'une demande en baisse pendant la récession, de même qu'en raison du développement du gaz naturel et des sources de pétrole « peu conventionnelles », le « coût » des combustibles connait des augmentations non seulement en matière de prix, mais aussi en matière des coûts « extérieurs » cachés, ce qui implique une autre forme de récession provoquée par des prix trop élevés, par la pollution, par les changements climatiques, etc. De plus, je soutiens qu'une mesure précise de ces coûts extérieurs est peu envisageable. L'exemple de la production « peu conventionnelle » du combustible dans la région des sables pétrolifères de l'Alberta illustre cette proposition. Comment, par exemple, prévoir les conséquences d'un nuage mobile d'arsenic souterrain qui pourrait ne remonter à la surface que dans une centaine d'années? Ces facteurs d'indétermination rendent impossible toute prévision de la « durabilité de l'environnement », sans pourtant nous décourager de continuer à tenter de telles prévisions. En dernier lieu, je propose que notre subjectivité de consommateurs apparemment doués de libre-arbitre est elle-même une conséquence de l'action du pétrole : celui-ci nous interpelle comme sujets. Face à cela une réaction envisageable pourrait être la production d'un modèle actantiel diffèrent, dans lequel on remplacerait le calcul par le don.

Whatever Happened to Peak Oil?

A funny thing happened on the way to Peak Oil. It has not happened, or so it seems, at first. A few years ago—between 2005 and 2009, to be precise—there was much talk in the public prints (the 'mainstream media') about 'oil running out'—this was how 'Peak Oil' was apparently conceived. Kenneth Deffeyes, the author of *Hubbert's Peak*, declared that Thanksgiving, 2005 was the official date of Peak Oil: after this, presumably, oil would get progressively more expensive, and society would collapse.[1] 'Peak oilers' were identified with 'doomers,' those who imagined that very soon we would all be living in caves, surviving as well as we could with early twentieth century implements and weapons (at best). James Howard Kunstler's novel, *World Made By Hand*, published in 2008, depicted in its rather aimless narrative a society that had somehow reverted either to a nineteenth century mode of existence, or perhaps to a new dark ages, depending on how one wanted to interpret it.

Facts seemed to bear out the prognostications of the 'doomers,' at least for a while. Oil hit $147 a barrel in July of 2008,[2] and yet production did not rise, which it should have, assuming conventional laws of economics (higher price means higher production, and an eventual fall in price). Motorists were not waiting in lines before the gas pumps, as they had during the 'energy crisis' of the 1970s, but they were paying the (then) astounding price of over $4 a gallon for that precious elixir, gasoline. The world seemed to be shifting on its foundations: China was booming, ever more oil was called for, and yet production was stagnant, at best. Would we all be living in caves in a few years?

Daniel Yergin, the Pulitzer Prize winning author of *The Prize* and mainstream go-to guy on oil, was called on to make his pronouncement, and he did so: through CERA (Cambridge Energy Research Association), his high priced (and profitable) think tank, his spokesperson proclaimed: Peak Oil is garbage.[3] But which Peak Oil? At this point a careful observer could start to note a problem: Peak Oil was coming to mean different things to different observers. For Yergin, it was indeed the sudden dropoff of production leading to a 'primitive' existence—perhaps the future as foreseen in caricature by Kunstler. But Yergin himself recognized, if not a "peak" followed by a sudden drop-off in production, then at least a slow rise, an "undulating plateau" (another geological/topographical metaphor) followed, in, say, forty years by—decline.[4] He wasn't calling it 'Peak Oil'—he excoriated the term and those who used it—but it amounted to the same thing: an eventual drop-off in oil production. One had the strange feeling that people were arguing about semantics, for Deffeyes, and any number of other 'Peak Oil' gurus, had already indicated that the issue was not so much a sudden peak followed by apocalypse, but rather the steady falloff in production caused by the decline of returns on energy investment: in other words, energy from oil from here on out would cost more in energy to extract and produce; "Energy Return on Energy Investment" would tend toward a point of negative returns.[5] Oil, in short, would start to cost more. While some people were arguing about apocalypse, and trying to score points, the real problem started to appear: how to calculate the rise in the *cost* of oil (in energy invested), presumably, but not necessarily, reflected in the *price* of oil (as measured in dollars)? But how would high cost manifest itself, if not in high price?

What happened next served to discredit the peak oil as apocalypse story, but for attentive observers hardly banished Peak Oil in its larger sense to the trash heap of discredited ideas. The price of oil fell dramatically, going as far down as $35 a barrel in February of 2009.[6] Suddenly oil was 'cheap' again, but there was a massive recession; car sales fell through the floor, GM was headed for bankruptcy, and it seemed that the American Way of Motoring had finally swerved into a ditch.

If oil was cheap, its cheapness clearly had something to do with the recession. Cheap oil, coming so soon after peak oil, taught everyone a serious lesson: even if oil production is stagnant, fall in demand will cause prices to fall dramatically. Oil is not or will not be eternally expensive (in price): a recession due precisely to high oil prices will cause demand to fall, and prices along with

it.[7] One can well imagine that the famous "undulating plateau" would be caused not by continual discoveries of new (often 'unconventional') oil sources and their quick exhaustion, but by the rise and fall of demand as the world entered a roller-coaster phase in which demand gyrated with the onset and alleviation of multiple oil-price induced recessions. Peak Oil, from this perspective, would be associated, precisely *not* with a simple peak but with the undulations of a not so calming and bucolic plateau. The plateau, after all, announces the inevitable fall; thus it is a kind of long drawn out peak (long in media-attention span terms—another few years or even decades—but hardly on a geological or even historical scale). An undulating peak?

By this time the mainstream media had pretty much lost interest in the whole question: Barack Obama's election and his standoff with the Republican Party stole media attention not only from energy issues, but from questions of ecology, which had been highlighted in the last few glowing years of prosperity before the crash. Michael Pollan's locavorism, issues of city structure, food miles, active transportation—all that headed back to the blogs from whence it came.[8]

And then, starting in late 2009, the real blockbuster: natural gas was no longer in crisis mode (because there had been talk of 'Peak Gas' as well); gas supplies were growing *more* plentiful, and the bottom of gas prices was nowhere to be seen. Oil production too was actually rising; the same technological 'breakthrough' that was enabling the uptick in natural gas production—namely hydraulic fracturing or 'fracking'—was having its effect in the oil fields. The era of 'unconventional' oil and gas was finally dawning: these resources were being wrested out of the ground through the injection of steam and a witches' brew of chemicals, transforming and traumatizing local economies from Montana and North Dakota (the Bakkan fields) to Pennsylvania and New York State (the Marcellus Shale). Moreover, the Athabasca Tar Sands, producing synthetic oil from cooked down tar, were also proving to be a new major source for oil, as 'conventional' oil production inevitably declined (as per Peak Oil theory). Hence the mainstream take on oil, following, as always, Yergin: yes, conventional oil was in decline—as was natural gas—but unconventional sources would make possible not only the replacement of disappearing conventional oil, but would actually provide more oil to the market. The seeming peak of Thanksgiving, 2005 would be forgotten.[9]

So what is one to make of all this? Will the price of oil and gas continue to drop not because of a terminal recession, but because of ever increasing 'unconventional' production?

What is interesting, I think, is the fact that at a certain point people lost their ability to understand what the rising cost of oil could mean. The basic, most primary meaning, was obvious: more expensive oil was oil that had a higher price in dollars. So when oil hit $147 a barrel, everyone talked about "Peak Oil." If oil cost more it was because it was getting scarcer, the specter of 'lights out,' of the decline of empire, hovered over considerations of easily measured price. Of course some skeptics, including President Obama, argued that the price run-up was due to nasty speculators. The latter, for some reason, had never existed before, at least not in the oil markets. But the skeptics' protests were muted, as long as a general fear of high prices, and the overarching question, "Where will this end?", presided over debates. As soon as prices started to fall, however, a surprising thing happened. "Peak Oil," it turned out, really was garbage, or so it seemed, precisely because prices were falling—it was irrelevant why. Suddenly, a disconnect took place between price and cost: it was generally ignored, at least in the public prints, that the falling price was due to a recession caused in large measure by the preceding *rise* in oil prices. The fall in oil prices, in other words, was now caused by nothing less than their previous rise, and by, yes, increasing scarcity.What was starting to appear, and what subsequently appeared very clearly, was that the price of oil had to be seen in the context of the cost of oil. The cost, moreover, was not always to be measured in dollars—but then how to measure it?

One could easily answer—perhaps too easily: in recession, in generalized (or more generalized) human misery. As money went to pay for oil, it could no longer pay for other stuff: housing, industrial investments, whatever. The entire growth/debt economy was threatened. The cost of oil would now be measured in rising joblessness, in political angst, in the rise of a lunatic right, in a not-so charming insouciance pertaining to global climate change. The important thing, though, was that the cost of energy, and the cost of Peak Oil—which is always how Peak Oil will manifest itself, *through cost*—was being 'externalized.'[10] Costs, in other words, were being passed on, or passed off, in such a way that they did not seem to be a factor in what was happening. Oil seemed to be cheap—$35 a barrel—Peak Oil was dead, but now the rising cost of oil was to be measured in terms that did not lend themselves easily to quantification, uncomplicated pricing, and sudden recognition. In other words, 'Peak Oil—the ever-rising cost of conventionally produced oil products—made (and makes) itself felt though externalized costs that may not initially be associated in a direct way with the price of oil at all.

Peak Oil's really high cost, then, was not primarily the scary price of $147 a barrel, but the endless 'Great Recession,' and the larger (ecological, social) costs of the production of 'unconventional oil.' The beauty of the recession, though, is that it can be attributed to so many things other than Peak Oil. Similarly, the costs of 'unconventional' production—contaminated water, air, and land, along with the larger effects of global climate change—can be overlooked, or can be dissociated from the actual price of oil, and thus ignored. This difficulty of conceptualizing and quantifying the import and precise impact of external costs was not due, I think, entirely to the obfuscations of pundits on television or in the *Times*. It was due to the inherent and profound difficulty of determining external costs. It is one thing, in other words, to realize that the real cost of things is being passed off and somehow obfuscated. It is another thing to figure out what those real costs are, and locate them.

The Puzzle of External Costs

Externalized cost in the case of the Athabasca Tar Sands can be characterized in a number of ways. The most important, I think, and the most general, is this: *it is not fully knowable*. This is the paradox of external cost: it is extreme, but it plays out in scenarios of the future that resist representation, prediction, calculation, and that, quite clearly, extend over long periods of time into the future. In his excellent book, *Tar Sands: Dirty Oil and the Future of a Continent*, Andrew Nikiforuk says this about water use in the production of 'unconventional' oil:

> For nearly a decade, scientists, as well as environmental and Aboriginal groups, have asked the government to study how much these city-scale withdrawals are impacting the [Athabasca] river's health and instream flows. To date, nobody can say with any certainty whether the province's promiscuous permission-granting has left enough water in the Athabasca for the fish. In the wintertime, water levels drop so low that by 2015 industry will be withdrawing more than 12 percent of the water's flow. (Nikiforuk 65)

The non-knowledge of the future of environmental contamination—the externalized cost of unconventional oil (and hence of oil in general)—is in principle never fully knowable because the future is never precisely predictable. Costs will make themselves felt, but may not be recognized as costs, and will have to be 'paid,' in one way or another, for periods of time that are beyond the time scale of (modern) civilization as we know it.

Writing of proposed carbon capture technology—which in principle would store the carbon produced through unconventional production and refining—Nikiforuk notes that

> Once CO2 begins to be injected at carefully chosen sites, the EPA has proposed that regulators track CO2 plumes in salt water, monitor local aquifers above and beyond the storage site to assure protection of drinking water, and sample the air over the site for traces of leaking CO2. And this isn't something to be done over twenty or fifty years—the EPA believes this oversight needs to be maintained for hundreds, if

not thousands, of years. (Nikiforuk 141)

What's true of the imagined (really science-fiction) technology of 'carbon capture' is true of the very real and present danger of the spread of other kinds of 'plumes.' Nikiforuk writes, for example, of Arsenic plumes that result from SAGD (Stream Assisted Gravity Drainage), a technique used to "melt [bitumen deposits] into black syrup" (69):

> Arsenic, a potent cancer-maker, poses another challenge. Industry acknowledges that in situ production […] can warm groundwater and thereby liberate arsenic and other heavy metals from deep sediments. Canadian Natural Resources recently reported that one arsenic plume moved nearly twelve hundred feet over a fifteen-year period but estimated "it would take centuries, if ever," for that arsenic to affect drinking water. No one, however, knows how much arsenic seventy-eight approved SAGD projects will eventually mobilize into Alberta's groundwater and from there into the Athabasca River. (Nikiforuk 72)

Here again we see unpredictable "movement" and "leakage" (Nikiforuk 140-141) tied to deep uncertainty and an inconceivable time-frame: "centuries, if ever" for disaster to happen—or not. My point is not to highlight the dangers of all this plume-movement—Nikiforuk, with his impeccable and detailed research, has already done that—but to note the ways in which this movement is unknowable in at least three ways, at a cost so external in its hiddenness that it becomes inconceivable. Maybe (or maybe not) the arsenic will move (first unknowability); maybe this movement will happen over centuries, or over thousands of years (second unknowability). As with the CO2, one can imagine that it would have to be monitored for millennia, even in the uncertainty of its movement. But by whom, and under what circumstances? (Third unknowability.)

But at this point the smallness of human calculation collides with the vastness of cost beyond human scale, and certainly beyond the momentary scale of the spasm of capitalism now driving Tar Sands development. What human civilization will be found in Alberta in, say, two thousand years? What sense will it make of our 'addiction to oil'? What will be the cost to that civilization of the future of the 'plumes' of 'moving' arsenic? The cost of monitoring it? Of ameliorating it? Of abandoning the region because it is unlivable? All of this is unknowable, and unknowable too, for that reason, are the final, externalized costs of 'unconventional' oil.

Seeing these costs as 'hidden,' however—and unknowable in their hiddenness—has a corollary: they will leak out. Just as 'plumes' drift, and eventually show up in drinking water, or on the surface, so costs will appear, unpredictably, showing themselves in ways that do not immediately allow us to see them as costs. Just as arsenic might appear far from its initial source, on a completely different geological level, so cost might appear in forms that conceal, rather than reveal, their sources. Leakage, then, is both material and semiotic, and the two are linked, indeed inseparable. The cost of arsenic leakage depends on the movements and directions of that leakage, which can never be fully known and yet will refuse to stay hidden; in the same way cost as a measure and consequence shows up in different places, never fully knowable or definable, coming in different forms or versions, ruining things, leaving issues whose resolution or amelioration seems to have nothing to do with the strata out of which it has emerged. This will (or may) go on for centuries, millennia, forever, for people whose civilization is shrouded in the distant future. External cost, like arsenic plumes, like the fictional CO2 plumes, drifts, appears, disappears—is known, ignored, represented, conjured away. Costs continue, or will continue, to be felt (or reckoned, ignored, displaced) long after what incurred them—'oil'—is forgotten. What is the 'origin' of this (not-so) hidden cost, then, of those plumes? Our 'fossil fuel addiction'? This is as difficult to pinpoint as the movement of cost itself, in all its various guises. Just as we will have a hard time indicating the true cost—let alone price—of a barrel of 'unconventional' oil, so too we will have difficulty in accounting for the 'need' for oil that drives its extraction and refinement. We know by now all the arguments: that we could live with the consumption of a lot less energy, of a lot less fuel; that our houses could be more efficient, and our cities too. There is no need to drive

so much, heat empty and leaky rooms, waste energy consuming stuff we do not want and that only alienates us from others. We know all that. But still we consume. We consume heedlessly, locked in the semio-material linkage of leakage, of the drift of poison and cost.

What language can we use to represent cost, what calculus to quantify it? And what psychology, what physiology, what cultural urge or somatic drive to explain, fully reckon, the 'need' for the useless expenditure of energy? Energy that, moreover, comes to us from sources we do not need to know about, cannot know about. Thinking about the fate of the Athabasca river, really understanding its ecology, the movement of all the plumes, even the barest outline of all that, the future of all that to infinity, would ruin a nice drive to McDonald's. Just as cost and the origin of all those costs is unknowable, ungraspable, we have a motive to keep them unknowable. This, I suppose, is yet another level of unknowability. The unknowable, ungraspable urge to spend, to consume, to burn—by definition irrational, given all the consequences of the act, themselves (or their costs) ultimately unknowable—along with the willful desire, kept hidden no doubt, not to know. We know enough to want not to know. We want to not know all that we know is ultimately unknowable. Denegation to infinity. To blame it all on capitalism is certainly tempting, it could certainly work in an analysis—but that supposes another calculation, one in which all the numbers work out correctly, one in which the future is perfectly mapped and known in all its sustainable glory. Certainly a worthy goal, that, but one fears that sustainability posited in the teeth of the radical unknowability of the cost of the human footprint is just one more example of semiotic leakage: an equalization of material process and the powers of calculation/representation that is more wish than fulfillment. The river is already endangered, CO2 levels are already elevated, the future cost of all this is already a formidable conundrum. Ultimately the future of 'unconventional oil' may boil down not to precise calculations through which it can be known and controlled—though all that is necessary—but to its role as an *agent* in which our very subjectivities are both constituted and called into question.

The Agency of Oil

To say that the carbon footprint defies simple calculation is not to say that we have a free hand in polluting. It is to say, however, that our response to egregious catastrophes like the Athabasca Tar Sands projects must be nuanced in the sense that simple representation of a clearly identifiable event—an event without leakage, so to speak—by clearly identifiable and singularly responsible subjectivities is no longer sufficient.

Why, after all, do corporations produce oil from the Tar Sands? Why do legislators and jurists enable them? Why do television and print journalists in the mainstream media affirm their activities? More is at stake, I think, than simple economic pressure, the love of profits, and so on. To be sure, all that is involved, but I think at the same time one must go back and consider, if you will, the genesis of the subjectivity of the agent of unconventional oil.

As Paul Robbins and Julie Sharp point out in their article "Turfgrass Subjects," the subject of ideology is itself the result of an interpellation on the part of the other. If, as Althusser has argued, individuals are constituted in ideology through systems of "natural necessity and immediate practice," this is possible because they act both as seemingly free agents and as "subjected being[s] who submit[…] to higher authority" (Robbins and Sharp 121). This freedom in submission—one is a responsible subject and one is subject to authority—is characterized by a moment in which the subject recognizes him or herself in free submission: the interpellation of a policemen, followed by the response of the (now guilty, 'responsible') individual, is a moment of the constitution of subjectivity (self-awareness in subjection).

Robbins and Sharp point out that it may not be a question merely of the agency of the policeman: turfgrass, to which the homeowner is subject, can play exactly the same role. They write:

> Thus, as the turf draws its demands from the culture and the community, it helps to mould the capitalist economy into specific forms, and helps to produce peculiar kinds of people—turfgrass subjects. […]

> Industry is not producing desire, but is rather responding to the need for information required for the material practice of lawn care by the turfgrass subject. Neither does community pressure, a clear driver for individual behavior, engage in some simple way through the demands of industry. Rather, it can far more easily be argued that community pressures suit most directly the demands of turfgrass. (Robbins and Sharp 122)

Of course, the 'demanding' agent in a case like this need not be animate. To be sure, plants of all sorts 'use' humans to proliferate; as Michael Pollan has pointed out, corn, apples, marijuana and other crops "use" us to aid them in their genetic quest for dominance, just as much as we "use" them (Pollan). But what Robbins and Sharp say of turfgrass can be just as easily said of the automobile: virtually all of human society turns around the acquisition, care, development, and disposal of cars. In other words, an extraterrestrial observing earth could be forgiven for thinking that cars are the dominant species, and humans are bred simply to serve them.

Which brings us back to the Tar Sands, sustainability, and Peak Oil. As with turfgrass, oil too 'moulds the capitalist economy into certain forms—indeed one could argue that the rise of capitalism itself was a function of ever cheaper and more efficient energy sources, with the energy produced by the burning of oil at the very end of the process (see Heinberg 45-84). As subjects, we are interpellated by oil, by its demands and inconsistencies. As with the auto, we care for it, cultivate it, propagate it, rouse it from its slumber by freeing it from shale or melting it from sand, love it, abuse it, waste it. That is what we do, what we are. We are subjects of, and subjected to, the energy slaves provided by oil—we are inconceivable without those slaves, their demands are our demands.[11] When they call, we answer. (Indeed if Hegel were alive today, he would rewrite the master-slave dialectic as the confrontation between a subject living under 'late' capitalism and the energy slaves powering her appliances, cars, providing her food, her heat, her leisure.)

But the demands of those energy slaves—and ultimately of oil, whose agents they are—are as close as we can come to quantifying the external costs of oil, and understanding Peak Oil as a function of those external costs. Just as, when the policeman calls, we can never be sure what he is calling about as we turn around, so too when oil calls we can never know fully what its demands, and its costs, will be. Where will the plumes of its poison reach? What will be the limits of those demands? When will oil go away, leave us without our dear slaves, force us to respond to the demands of ever more costly fuels? We can never be sure of the 'other,' never firmly grasp its position as us only separate from us, the mirror of our subjectivity all the while being a profoundly foreign agency, a profoundly alien and even hostile one. In the face of this anxiety we will leave no stone unturned, spare nothing to provide the apparatus of oil—its vast industrial infrastructure, its energy slaves working in every continent and in every service—with what it wants and needs, despite the obvious risks to the environment and even to our own health. We can never fully and clearly calculate that cost, but we can depict, quite clearly, our dependence on an agency that is unconcerned with all that other stuff, with all the stuff of our subjectivity in (impossible) isolation from a socio-technical 'frame' that brooks no opposition.

Put another way, to free ourselves from that 'other' agency, as from turfgrass or some other noxious monoculture (corn, for example, itself obviously dependent on an oil infrastructure), we will have to imagine defeating an agency which has called forth, through its interpellation, our very subjectivities—and something to which we are *subjected*. Not an easy task, for we never really know where this agency is coming from or where it will take us; where, in other words, its plumes are drifting, where its leaks are opening, what new demands it will make. If we could draw the line once and for all and be done with it, it would perhaps be easy. But 'it' can never be pinned down: when will Peak Oil 'arrive'? How will its external costs be manifested in 30 years, 50, 100? Who will be there to attend to those costs, how can we prepare those people of the future by preparing and attending to our own needs, now and in all the possible futures to come?

It is not, then, just a matter of 'kicking our addiction to oil.' Or perhaps it is, if we can argue that any addiction—to heroin, food, cigarettes, cars, whatever—is about not just us and what we want, but also what the 'other' wants from us, how its character, makeup, whatever, determines how we go about acting (or not acting) in relation to it. If the heroin addict is called by his drug, finds it to be "my wife, and my life" (as Lou Reed put it), so we, and the entire civilization, are called by oil. We turn around to face it—with guilt, perhaps, but we turn around. Every other addiction flows (literally) from that of oil.[12] To break our enslavement to our energy slaves means literally reformulating our subjectivity: how we constitute ourselves in every way in what we are subjected to. A task a thousand times harder than kicking any specific addiction, because energy enslavement through oil is the necessary condition of all others (it is hard to imagine the current vast army of heroin addicts in a solar-energy economy).

One can imagine an antidote, after a sort, to this economy of interpellation and indebtedness (I am obliged to the policeman to turn around when he calls me: I owe it to him, to what he represents). It is the gift economy.[13] Now there is already a gift giving implied in the Tar Sands developments, but it is not a very happy one. Canada is exporting synthetic crude to the US, and retaining all the environmental destruction that goes along with it. In short, the US gets the oil and Canada gets the devastation. This is the biggest gift one country can give another, dwarfing even the gift giving of the Marshall Plan about which Bataille waxed so enthusiastic.[14] But this gifting is nothing more than an affirmation of the supremacy of oil and its agency, through recognizing above all the US's *need* for oil.

One could imagine another giving of oil: to give the gift of oil in this case would be to refuse dependence on it. Rather than giving the poisoned gift (to oneself, one's own country) of ecological devastation, one could give the gift of the agency of the other.[15] In this case, the other—here oil—would not be seen as a hostile mirror-image, but rather as a fragile, death-bound agent of finitude (which oil, at its peak, certainly is). In Marguerite Duras's screenplay for the Alain Resnais film *Hiroshima mon amour*, Duras has her heroine cut herself off from the power of the traumatizing memory of the shooting of her German lover at the end of the war. Speaking to her own 18 year old self in the city of Nevers, she says: "Je te donne à l'oubli"—"I give you to forgetting."[16] In this case, the ferocious agency of her other, her double—herself as a traumatized girl, guilty of collaboration—is *given* to forgetting. In this scenario, a lack of remembrance is an agent—it receives something, a memory—but an agent as non-agency. Of course no forgetting is permanent, one is always subjected to the horror of the eternal return, but in this case forgetting can serve as a recipient of a gift whose giving puts in question an economy of demand, need, addiction, and careful calculation of payback (cost). This is, in other words, a movement by which *another* economy is embraced; this one, however, is not one of giving to another clearly defined entity (the US, for example) but to forgetting—the absence of agency—itself. A forgetting as gift.

This, then, is a relation not of precise calculation but of disengagement. Imagine if one could give turfgrass to forgetting. Just stop watering and mowing it. But how to give oil—now in its imperious agency 'unconventional'—to forgetting? That's a much more difficult question, because oil, as I've noted, is in many ways the 'root' of all other addictions.

This is hard, in the same way that kicking turfgrass is hard. The agency of turfgrass depends not just on what grass wants (water, pesticides, the labor of mowing), but on what a number of socio-technical infrastructures demand: neighbors, friends, communities, industries. Grass's demands, we could say, are framed by a number of other subjectivizing structures. But the demands of oil, its unknowability—Where is it? Where are the plumes associated with it leaking? How is it to be gotten? What is its finitude and futurity?—is tied to the demands not just of some other people but the gravity of one's apparent survival. My car interpellates me, but my food keeps me alive.

Perhaps this is the true moment of not-knowing. At a certain point, the gift to forgetting cannot be knowing, anticipating, calculating. Calculation may be only an infinite regress in which the overweening agency of the other—oil's interpellating power—is recognized and ultimately affirmed: how can we balance accounts, how can oil be mastered, but only to the extent that its use is formatted within a fully sustainable economy? *Forget* by just doing it: stop feeding it. Starve the beast. Consume less. Eat less (especially 'cheap' food). Stop driving. Hell, give up the internet. Do anything to break a dependency in which external costs are seen only as a staggering sublime, a mind-boggling infinite, rather than what they also are: ideological forms to be given away, to the recurring oblivion of forgetting.

Such a forgetting cannot be permanent, definitive—any more than can be that of Duras's heroine. The days of the supposed easy measure of efficacy (like the easy measure of externalities) is over. But it is a gesture, the first one to 'take,' or to let go.[17]

(Endnotes)

1. See, for example, the prediction of Thanksgiving 2005 as the official date of peak oil, at Kenneth Deffeyes's website: http://www.princeton.edu/hubbert/current-events-05-11.html.

2. On July 11, 2008, to be precise: http://afp.google.com/article/ALeqM5gsJAY3OhpMxZLy_GSprXLsqqTY2A

3. "'Peak Oil theory is garbage as far as we're concerned', said Robert W. Esser, a geologist by training and CERA's senior consultant/director of global oil and gas resources, according to *Business Week* online national correspondent Mark Morrison (Sept 7)." See http://www.energybulletin.net/node/20418. HIS-CERA defines itself as a "global energy information company," providing research to corporations. Its website: http://www.ihs.com/about/index.aspx.

4. See Yergin's comments, as reported on The Energy Blog: http://thefraserdomain.typepad.com/energy/2006/11/cera_the_undula.html

5. On "Energy Return on Energy Investment" (EROEI), see Heinberg 125-126.

6. See the *Los Angeles Times*, 18 Feb., 2009: "Crude Oil Slides Below Key Threshold of $35 a barrel": http://articles.latimes.com/2009/feb/18/business/fi-gas18

7. See Gail the Actuary, "Oil Limits, Recession, and Bumping Against the Growth Ceiling," for an exhaustive discussion on the relation between the availability of oil and the prosperity of the growth economy.

8. See Pollan, "Why Bother?" on the virtues of confronting global climate change through changes in energy and food policy—this in an open letter addressed to the next president (undecided at the time of the writing of the article). Such idealistic, and inspiring, articles rarely seem to appear in the *Times* any more (at least as of 2012).

9. See Krauss: "This striking shift in energy started in the 1990s with the first deepwater wells in the Gulf of Mexico and Brazil, but it has taken off in the last decade as a result of declining conventional fields, climbing energy prices and swift technological change. […] The United States may now have the means to reduce its half century of dependence on the Middle East."

10. On external costs, see Laffont.

11. On energy slaves, see Heinberg 30-31.

12. By this I mean that the flourishing of our "late capitalist" economy is entirely dependent on fossil fuel inputs: agribusiness (monocultures), transportation, the widespread production of delightful commodities and toys, all of this is unthinkable without massive fossil fuel inputs. The cost of every other addiction goes up when the overall cost of oil goes up.

13. For the classic analysis of gift economies, see Mauss.

14. See, for example, the last chapter of Bataille's *The Accursed Share*.

15. In German, of course, *gift* means poison. On the poison-gift connection, see Mauss 81.

16. The full line is: "Petite tondue de Nevers, je te donne à l'oubli"—"Little shaved-headed girl from Nevers, I give you to forgetting" (Duras 118). Duras's heroine has had her head shaved by members of the Resistance (or simply by nasty townspeople), as punishment for "horizontal collaboration."

17. Szeman notes the absence of a coherent discourse on the left concerning peak oil and all its consequences. How, precisely, to see that capital will end before nature, and not vice versa? (820-821). Citing Jan Oosthoek and Barry Gills (821), Szeman notes that what's needed is "a new political economy [that] must take our impact on the planter's environment fully and realistically into account." As Szeman also notes, this is "easy enough to say, but much, much harder to produce when what is called for is a full-scale retraction against the flow of a social whose every element moves toward accumulation and expansion." I would note here only Oosthoek and Gills's use of the word "realistic" in the above quote. How does one take one's impact realistically into account? What is real? I can only suggest here that a gift economy might very well have a different definition of the real—or the Real—than that of a growth/debt economy.

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