

Re: Going around in circles

Regimes of waste

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Greenpeace activists painting «l'Europe intoxiquée l'Afrique» on the hull of the cargo vessel Probo Koala, involved with the illegal toxic waste dumping incident in the Ivory Coast region of Africa on August 19, 2008. (Photograph by Christian Aslung, copyright Greenpeace)

Waste is society's dirty secret. Mira Engler¹

The madness of it all: round and round in circles we go, where it stops nobody knows. That we are trapped in a vicious circle should come as no surprise. Though contemporary civilization is driven by the desire to attain ever-higher standards of living, the consequences leave much to be desired. The more intractable the challenges, the more entrenched our resistance to confront them. We dream of an endless supply of goods while neglecting the aftermath of consumption-generated waste. Prosperity seems to ripen the principle of decay. Recalling Goethe's ballad *The Sorcerer's Apprentice*, efforts to keep means in check often spiral out of control. A self-reinforcing dynamic is fueled by the open-ended drive for material wealth.² And so the circle continues.

While some believe that technology is *the* answer, others are more skeptical, arguing that reductive technical idealism will only exacerbate the mess and accelerate the proverbial end. So, where are we heading? The responses range from the ecstatically positive to the emphatically negative. Optimism is played against pessimism, as is utopia against dystopia.³ But before the doomsayers are dismissed outright in favor of a more upbeat future vision, clues may be taken from the downside of this stalemate, where crisis rules in an apocalyptic setting.

Anyone familiar with *Mad Max*, the low-budget film trilogy set «just a few years from now,» might gain insight from such adverse prophecy in which the world has come full circle and descended into chaos.⁴ What

remains of the past are scraps of civilization scattered across a wasteland stripped of resources and roamed by marauding gangs. One human outpost in particular is given the telling name Bartertown. Here, used goods are the only material resource available, and waste, whether animal excrement or technological debris, is the currency of trade in closed-loop material and energy flows. The bottom line is that everything is recirculated for auction in the «house of good deals,» a market place of second-hand commodities. In this desolate world, Bartertown boasts its role in «helping build a better tomorrow.» Yet, this pledge is remote to those championed by similar calls for the same in our time. There is nothing pristine in this environment. With excess but a distant memory, whatever is at hand is mined for other possible purposes, yielding to a haphazard, impromptu mode of tinkering for survival. Denizens of this makeshift settlement form a rudimentary community loosely held together by tacit rule. It is not quite clear who runs this patchwork of top-down and bottom-up governance - with Aunty Entity's apparent authority from above curbed from below by the underworld power-duo Master Blaster.

Notwithstanding the pervading scenario of gloom, a series of key diagrams are enacted in this regime of waste. Remove the popular notion of abundance from the equation and you get a self-sustaining, albeit crude, colony of mutually reliant players whose coexistence is strictly dependent on the cooperative reprocessing of a reduced palette of resources. While utopian visions tend to frame the world from the vantage of a new beginning that holds out the promise of a corrective and homogenizing ideal, they seldom account for the messy reality of things as taken by *Mad Max* to its extreme. Whether utopia or dystopia, it is this reality that will not conveniently go away in a flight of fancy where what is here today is gone tomorrow. Looking back at the madness played out in the trilogy, it would seem that our future is not only «just a few years from now», but can no longer be what it used to be.⁵

1 Re: Reduce, Reuse, Recycle

But let us backtrack for a moment. Are we not already players in modern-day Bartertowns, would-be recyclers in a deteriorating landscape that has become our own profane junkyard? Supporting evidence can be found anywhere. Take for example the weekly classifieds of large metropolitan regions such as the Los Angeles Edition of *Recycler*, a free-for-the-taking circular found in every gas station, car wash, or diner. As with so many other cut-rate gazettes, this one is also poorly printed on cheap, second- or third-generation paper. Founded in 1973 on the heels of the first Earth Day as a local advertising platform for used goods, *Recycler* has grown into a network with thousands of distribution points throughout Southern California and has since been updated with its own accompanying website. Anything under the sun can be found in this smorgasbord of rejects, «cars, pets, jobs, real estate, it's all here.» Imagine a garage sale extended to the scale of an urban territory with more than 20 million inhabitants, where commodities are kept in circulation by a last gasp offer prior to being thrown away and deemed useless. The operation has been so successful that it has expanded to include castoffs from the construction industry, from copper, aluminum and plywood, to appliances, doors, windows, pools, fences, and gates. Perks include therapy for overweight pets, penis enlargement treatments, and girls of all sizes offering their services.

This hodgepodge assortment aside and despite all good intentions, the term *recycling* might not be quite appropriate for what is actually taking place here. This economy of hand-me-down merchandise functions as a delay in the linear chain that links resource extraction, production, accumulation, and consumption to waste. As a detour in this process *en route* to landfills, *Recycler* serves to absorb the overflow of goods at least provisionally, while clearing the ground for consumers to purchase more stuff. What's more, this proxy form of recycling further brokers the proliferation of capital, which in turn results in an escalation of junk.

Modern economics is founded on waste, produced at ever more frenzied rates. As is well known, the expenditure of resources is intrinsic to consumption. It can even be argued that waste constitutes the suppressed *other* of capitalism, a dirty secret kept hidden under the mantra «out of sight, out of mind,» though subsidized by externalized social and environmental costs. The equation seems to hold that the more profitable the markets, the more garbage produced. Consumption begets refuse, which in turn increases the stocks and flows of scrapped material. Based on what has been termed a linear metabolism, the input of resources within the system correlates with its output in the form of detritus. But sustained accumulations of trash, amplified by the built-in obsolescence of one-way commodities, are visibly leaving their mark on ecosystems. Thus not surprisingly, everyone clamors about keeping waste streams in check. Calls are made to shift from linear to circular processes in order to mitigate environmental pressure from trash run amok.⁶

Such pleas are made more than evident in the ubiquitous symbol for recycling that, as fate would have it, is printed on so many discarded products. As the winning entry in a competition sponsored in 1970 by the paperboard-packaging manufacturer Container Corporation of America, the recycling logo was originally designed by Gary Anderson, a University of Southern California architecture student at the time. A rallying icon for green awareness, the design could not be simpler. Comprised of three chasing arrows, the diagram circumscribes a closed-loop system, where one segment feeds into the next interminably. Though usually presented as a flat, two-dimensional image, the figure recalls the seamless continuity of a Möbius strip unfolding in space. Referencing the impossible realities of M. C. Escher's 'Strange Loop' motifs, the diagram implies the phenomenon of continuous return, a veritable perpetual motion machine fueling its own cyclical revolutions. The message is clear: waste must be tapped for all its worth.

Clearly, efforts to promote the virtues of eco-friendly practices were at the forefront of the day, for minding the environment had become a moral imperative. Yet, this is not the full story of the recycling symbol. With options for getting rid of waste narrowing by the hour due to increasingly stringent legislation, companies in the US were forced to go on the defensive. Rather than mining natural sources, as was commonplace, mining discarded material took on a new value. What can ostensibly be viewed as a benevolent turn by industry was allied with a shrewd business tactic to adhere to policy pressures and growing environmentalist demands. Reprocessing was born of necessity rather than choice. To stretch natural resources, *recoverable* material became the newly honored *raw* material. Corporate endorsement of recycling killed two birds with one stone: while providing industry with a badge of environmental correctness, endless material supply could meet endless market demand, and all of this without ever reducing consumption. In time, the three little arrows - without ever being credited to their author - were printed on virtually everything.⁷

The tripartite symbol was aligned with the three R's - reuse, reduce, recycle - to become a clarion call for all, for they seemed to offer a panacea for the situation. Similarly, a later array of initiatives, including William McDonough's 'cradle to cradle' and Paul Palmer's 'zero waste' approaches to material life-cycle management, have recently claimed to provide equally viable solutions.⁸ Though commendable, such efforts are limited in their effectiveness as long as prevalent economic mechanisms remain intact, particularly those that factor out the impact on the environment and displace the cost to the public domain.

Notwithstanding the pretense of cleanliness associated with Anderson's logo, recycling is hardly a clean-cut affair. As demonstrated in the near-future world of *Mad Max*, Bartertown is dirty and far from ideal. Material and energy shortages coupled with power struggles dictate the very political economy of waste. And, our cities are no different. The messy reality of material stocks and flows and their relevance for urban production must be acknowledged. Though commonly correlated with a condition of stasis, material things are in a state of flux. Matter is not just stored in the environment but incessantly circulates through it, all the while being transformed. Cities are in fact processing machines of enormous amounts of physical substances, with the building sector alone absorbing up to 50% of all material resources globally used, while generating a similar proportion of construction and demolition waste.⁹ To make things more complicated, cities are formed by highly heterogeneous material composites made from a range of partially incompatible parts, all transforming at different rates of velocity in mutually dependent flows. Darling of green lobbies of all stripes, the perfect circle model is thrown off course, broken up into a profusion of interlocking loops that are enmeshed in further cycles. With current urban development primarily relying on linear input-output processes, more and more matter is being accrued in cities, constituting a vast reservoir that has yet to be fully quarried. A case in point: there is now more copper in urban environments than in nature, suggesting only one of many material reserves that need to be recovered.¹⁰ Were such re-sourcing to happen, our own Bartertown would become a city that is itself a closed-circuit, where - as Lavoisier's first law concerning the conservation of mass stipulates - «nothing is lost, nothing is created, everything is transformed.»¹¹ But to frame urbanity in view of a sustainable handling of material resources requires a paradigm shift premised on circular urban metabolisms, a reorientation undoubtedly requiring changes in political and economic structures.

Cities are constituted by an accumulation of matter that is generally in step with capital accumulation. With the recent increase in the mobility of capital, material flows have likewise accelerated and become more complex. From the outset, capitalism has always taken advantage of the simple fact that raw material can easily be converted into processed artifacts, which can be sold as consumable goods. Such intertwined developments of the economic system and the material requirements of society are the very stuff of 'historical materialism,' a concept introduced within political economy and its attendant discourses concerning the production and reproduction of material and social relations.¹² So, with the advent of the green revolution and the maxim of

the three R's, a new chapter opens that offers the opportunity to potentially rewrite economic practices as we know them. But, capitalism - in its current form - has proven adverse to both reduction and reuse, for they stand in contradiction to unbridled growth and forewarn of imminent scarcity. The remaining R, however, while at first met with resistance, has proven to be a blessing. As a socio-technological fix, recycling requires its own industry, therefore mandating more production and ensuring more consumption. By the same token, recycling has kept capitalism alive by satisfying its insatiable appetite and taking the guilt out of wasting. Consuming means never having to say you're sorry.

2 Re: Regulate

Tracing another loop in the story, it is apparent that the knot of circles must be disciplined. The lesson from Bartertown shows the extent to which power-clashes pervade the scene and disparate interests collide, reflecting all too closely our own predicament. To enforce compliance with principles of sustainable development, an additional R was introduced quite early on in the game, for it became alarmingly clear that waste requires regulation. If capital ran its course unrestrained, it would more than likely leave the public behind. The private sector had to be curtailed. A barrage of legislation aimed at reducing pollution and ensuring more diligent waste management was unleashed, including environmental policies, taxes, levies, restrictions, and so forth to control the entire life cycle of commodities, with similar austerity measures taken in the building industry. Bottom line, cities would have to become cleaner.

As might be expected, a tug-of-war ensued between commerce and government, setting the tone on the playing field thereafter. While some companies complied, others looked for loopholes to evade restraints, outwitting the system where possible. Still others sought refuge in offshore havens, where laws are either lax or non-existent. Meanwhile at home, waste evolved into a lucrative enterprise in its own right. The very possibility to make money from the end-cycle of consumption turned attention away from the purely environmental to the financially alluring prospects of new markets. Recognizing in the interim that garbage means business, the State's response has been to reconsider Draconian policies and make it easier for companies to benefit from refuse. What one encounters here is a constant give and take in the hard-edged gamble of drawing the line, being side-lined and then brought back into play, all the while negotiating where the next line will be drawn, with bartering the name of the game.

Insofar as waste is a repressed matter, it has from time in memorial lurked in the nether world of social life. And, with waste made invisible, covert regimes below the radar have enjoyed free reign ever since. While the formal sector is engrossed in administering the logistics of refuse, other players silently operate in the margins. It is here where clandestine industries flourish. Manhole covers, copper pipes, and aluminum panels, for instance, are stolen and sold on the black market for considerable profit, thus revealing the hidden worth of the city as a veritable gold mine. Off the books and under the table, the informal sector can easily sink its talons in anything associated with value, including garbage. The recent trash crisis in Naples, yet another Bartertown of our time, is a poignant example of the skirmishes between municipal authorities and local syndicates that operate beyond legal jurisdiction. Mountains of uncollected rubbish lined the streets, producing a sickening stench that was «a cross between rotten eggs, burned skin and dead animals.»¹³ The results were appalling: the air was poisoned, Italy embarrassed, and, as feared, the local Mafia empowered.

Organized crime in this region, as in other parts of the world, has a strong foothold in both the construction and waste industries. Strange enough, it is these sectors of the economy in particular that bring various strains of the underworld into a volatile alliance where different clans compete for a share of the business. Building, excavation, and demolition not only produce a tremendous amount of residue, but also spawn illicit channels for handling waste. But here again, legitimate business and its illegitimate twin are mutually dependent. As is common practice, companies throughout Italy contract the Mafia to do the dirty work of disposal, including illegal dumping, waste exports, the remixing of toxic substances with other material, as well as the falsification of customs documents and merchandise certificates. Such services comprise what Roberto Saviano refers to as the business of *phantom refuse*.¹⁴ Outsourcing of this breed relies on an unexpected reversal of economic principles, where money changes hands not to acquire but rather to get rid of things. But it doesn't end here. As common sense would have it, one fundamental rule of business is to diversify. *Ergo*, covert operations of Neapolitan families have turned to other dubious sources of revenue such as counterfeit fashion, money laundering, drug dealing, weapons smuggling, and prostitution. Ventures of this sort demanded a larger arena, thus turning what had begun as a local business into a global enterprise, with partners of like kind in countries as diverse as Spain, Great Britain, Bulgaria, China, Russia, and Nigeria to mention a few. Such growth has

given crime syndicates amazing lethal power to paralyze entire cities and muscle them into submission, with Naples being the most recent home turf casualty.

The trail of garbage leads next to New York, Gotham City *cum* Bartertown. As funny as it may seem, we know the Mafia primarily from popular movies, *The Godfather*, *Scarface*, *GoodFellas*, and so on, with television following suit in the hit drama series *The Sopranos*. Here, the main protagonist is officially in waste management, a vocational cover for his underworld activities as Capo of a New Jersey gangster family. The irony of the script is that waste, socially repressed as a rule, serves as the foil of choice for his own suppressed psychological woes, which - in keeping with good Freudian practice - require therapy. His analyst is surely «accustomed to concealed things from despised or unnoticed features, from the rubbish-heap of our observations.»¹⁵

Taking clues from real life, the plot of *The Sopranos* mirrors actual events taking place in New York in the early 1990s, when mob-controlled garbage cartels were brought to justice. The story of this tight circle of friends unfolds from the mid-20th century onward. Organized crime had moved into the consumer age, with waste becoming the best thing since Prohibition. Their power stemmed from a simple precept: «control the flow of garbage, and just as surely as if you owned the supply of fresh water or electricity, you had an entire sprawling metropolis by the jugular.»¹⁶ This fit neatly with an organization already commanding the construction industry in many parts of the country. The waste monopoly in New York was territorially anchored by an illegal property rights system granting Mob-controlled trash collectors ownership of specific customers and locations. Anyone doing business in the city had to pay what amounts to a modern-day feudal tax to have trash removed. With volumes of refuse diminishing due to environmental laws, the Mob expanded their enterprise to capitalize on the collection of recyclables. Fortunes were made, albeit in dirty money. All this ended rather abruptly when the cartel was taken down by government agencies seeking order by formalizing informal waste management practices. As a consequence, waste streams needed to be redirected and new organizational structures devised. The business was handed over to the private sector and garbage corporatized.¹⁷

In the space opened up by the crackdown, companies moved in to clean up after organized crime, ultimately rivaling the prices of cartel extortion. Two early players that spearheaded the consolidation of the garbage trade in the US were Waste Management Inc. and Browning-Ferris Industries. They began by swallowing small local firms all over the country to form national monopolies before spreading into international markets. They successfully seized control of waste, setting an example thereafter for multinational conglomerates to emulate. Not only was the big business of mega-trash born, but also - as in so many other sectors of the economy - corporations overtook public works functions of municipalities, making the entire affair a private matter. As such operations expanded, waste traffic crossed borders to circulate as yet another global currency and followed the path of least resistance. Waste wound up where labor is cheap, environmental legislation weak, and ethics not an issue. The irony is that while the bulk of consumer goods are increasingly produced in the developing world, the majority of consumption-generated detritus is now also deposited there.¹⁸ Affluent nations turn out to be nothing more than a middle-world, an intermediate circuit in material flows constantly crisscrossing the planet.

And, it is these flows that are rewriting the political economy of waste. Whereas the surge in new business opportunities might stimulate ailing economies in poorer parts of the world, the same ventures can take advantage of not only being out of sight, but also out of mind. As the line dividing the legal from the illegal in this industry is so thin as to be negligible, garbage offers a good foil to hide behind. To operate in the dirty business of rejectamenta, whether domestic or elsewhere, is to enter the troubled waters of less-than-legal gray zones. An extreme case in point is the import and export of toxic substances. Nations predominantly in the Southern hemisphere serve as the world's dumping ground. What amounts to widespread environmental discrimination stands in direct defiance of the Basel Convention, which was ratified to regulate «transboundary movements of hazardous waste» particularly from developed to less developed countries.¹⁹ Insofar as the not-in-my-backyard mentality prevails in more prosperous regions, illegal dumping continues, encountering little opposition from those who stand to gain at either end, those too disadvantaged to mount resistance, and those all too eager to wash their hands of dirty deeds.

3 Re: Reframe

Rumors have it that a fourth installment of *Mad Max* is currently being discussed. That future «just a few years from now» is in pre-production. With the script still open, we might consider possible scenarios. At the end of the trilogy, surviving nomads set off from their deprived world to seek a better life, with utopia once again promising to prevail over dystopia. But, as the proposed title for the final sequel *Fury Road* suggests, the journey to paradise will be turbulent. In our time, sustainable development holds out a similar promise of delivery from dire circumstances, for its premises and objectives are perhaps the best last options at our disposal. However, calls for sustainability have been primarily cloaked in a moral robe fashioned on austerity, scarcity, and restraint. We are warned that a period of deprivation is imminent and encouraged to accept sacrifice and renunciation as ideals over and above indulgence and excess. A value system centered on constraint is put forth as the road map for the way forward. Slowing down is the hymn of the day.

But it is exactly such a mindset that might need to be reframed, without losing sight of what is at stake in this vision. While calls for a sustainable future admit to the central role of capitalism in getting us there, stopping has never been a part of its enterprise. As a matter of fact, no one can turn down the growth machine of capital. Thus, a possible take could be to capitalize on this internal momentum, taking advantage of the collective drive for prosperity, but to the n-th degree. This means discarding the moral robe of guilt in favor of redirected forms of expenditure. As Georges Bataille argues, the resolution of the problem cannot be formulated relative to scarcity and the shortage of resources *per se*, but rather in terms of how to deal with the abundance of energy and matter that we are wasting, if only by not using them.²⁰ He points out acutely that any living organism receives more energy than is necessary for sustaining life. Supplied primarily by the sun, this excess energy that he equates with wealth can either be absorbed for growth or expended. Basically, we are in the midst of a vast surplus of renewable energy sources that for the most part remain untapped. This argument holds for matter as an equally renewable resource, and specifically for waste. Bataille, as a matter of fact, was somehow «in favor of waste,» which he reframed by jettisoning its pejorative stigma and recasting it instead as a «gift».²¹ Lest this seem anti-ecological, it is actually a call for understanding refuse in all its heterogeneity as wealth to be mined, as a material endowment to be recycled, reprocessed, and recirculated. Framed as an economic principle, waste is expenditure with return. It must be granted new functions rather than being simply relegated to formless and useless matter. Bataille's deconstruction of a *restrictive* economy - preoccupied with deficiency and the fulfillment of momentary needs - opens up to a *general* economy predicated on how the wealth of resources available can be squandered. Re, re, re is the refrain for the future, a ritornello, so to speak, premised on recurring movements played in the different keys of energy and matter in continuous variation.²² Such a refrain, unfortunately, failed to inspire one of Italo Calvino's invisible cities. As we are told, «the city of Leonia refashions itself everyday.» Here, the new is exalted in a hyper-linear metabolism where everything is used only once and then discarded. Heaps of refuse surround the city on all sides like a chain of man-made mountains. Commodities and waste are ratcheted closely together in an ever-accelerating one-way sequence of use and disposal. «This is the result: the more Leonia expels goods, the more it accumulates them; the scales of its pasts are soldered into a cuirass that cannot be removed.»²³ The doomsday aftermath is well known, for as it is in the tale, so it is in our story: cities become buried by the rubbish they try in vain to reject. Although classified under the heading of «Continuous Cities,» Calvino's fable falls short of portraying a closed-loop system running *ad infinitum*. He does, however, hint that the true passion of Leonians is not really the accumulation of new things, but is actually driven by the pleasure of getting rid of them. «Street cleaners are welcomed like angels, and their task of removing the residue of yesterday's existence is surrounded by a respectful silence, like a ritual that inspires devotion.»²⁴ Waste and its meticulous handling are valued as gifts offered by society to itself. Were we to turn the parable's missed opportunity to our advantage, a modified economy would be set into motion. Perhaps then we would come full circle in being sustained by the constant transformation of matter and energy at hand, without beginning and without end.

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- ⁴ *Mad Max*, directed by George Miller and featuring the then-little-known actor Mel Gibson, was released in 1979. The film's sequels, *The Road Warrior* and *Mad Max Beyond Thunderdome*, appeared in 1981 and 1985 respectively. The first installment of the trilogy opens with the narrator framing the plot in a not too distant future.
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