

Going Around in Circles: Regimes Of Waste

Waste is society's dirty secret.

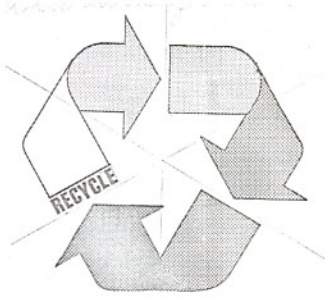
– Mira Engler¹

Contemporary civilization is driven by the desire to attain ever-higher standards of living, but the consequences of the consumption this spurs leave much to be desired. The more intractable the challenges of the cycles of consumption and waste, the more entrenched our resistance to confront them. We dream of an endless supply of goods while neglecting the aftermath. Prosperity seems to ripen the principle of decay.

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, utopia against dystopia.²

Mad Max, the low-budget film trilogy set “just a few years from now,” prophesizes a world without oil that has come full circle and descended into chaos.³ 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 apposite name *Barbertown*. 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. Everything is recirculated for auction in the “house of good deals,” a marketplace of secondhand commodities. In this desolate world, Barbertown prides itself on its role in “helping build a better tomorrow.”

While utopian visions tend to frame the world from the vantage point of a new beginning that holds out the promise of a corrective and homogenizing ideal, they seldom account for the messy reality of things that *Mad Max* takes to its extreme. Whether utopian or dystopian, it is this reality that will not conveniently go away in a flight of fancy. Looking back at *Mad Max*, it would seem that our future is not only



GARY ANDERSON, SKETCH FOR THE RECYCLING SYMBOL, SELECTED AS THE WINNING ENTRY IN A DESIGN COMPETITION SPONSORED BY THE CONTAINER CORPORATION OF AMERICA IN 1970. DRAWING COURTESY OF GARY ANDERSON.

1. Mira Engler, *Designing America's Waste Landscapes* (Baltimore: Johns Hopkins University Press, 2004), 14.

2. See Kevin Lynch's juxtaposition between “Waste Cacotopia” and “Wasteless Cacotopia” as two extreme models of worst-case scenarios, in Kevin Lynch, *Wasting Away – An Exploration of Waste: What It Is, How It Happens, Why We Fear It, How To Do It Well*, ed. Michael Southworth (San Francisco: Sierra Club Books, 1990), 3–10.

3. *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.



FILM STILL FROM THE *MAD MAX* TRILOGY, STARRING MEL GIBSON, DIRECTED BY GEORGE MILLER, AND RELEASED IN 1979, 1981, AND 1985. IMAGE COURTESY OF THE AUTHORS.

“just a few years from now,” but also can no longer be what it once was.

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 circular found in every gas station, car wash, and diner. Like so many other cut-rate gazettes, this one is poorly printed on cheap, second- or third-generation paper. Founded in 1973 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 Web site. Anything can be found in this smorgasbord of rejects: “cars, pets, jobs, real estate, it’s all here.” It has even expanded to include castoffs from the construction industry, from copper, aluminum, and plywood, to appliances, doors, windows, pools, fences, and gates.

Modern economies are founded on waste produced at ever-more-frenzied rates. The expenditure of resources is intrinsic to consumption, and consumption begets refuse, which, in turn, increases the stocks and flows of scrapped material. The term *linear metabolism* is often applied to this situation, where the input of resources within a system correlates directly 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 now clamors about keeping waste streams in check, and calls are being made to shift from linear to circular processes, to mitigate environmental pressure from trash run amok.⁴

4. See Peter Baccini and Paul H. Brunner, *Metabolism of the Anthroposphere* (Berlin: Springer Verlag, 1991). Herbert Girardet, *The Gaia Atlas of Cities: New Directions for Sustainable Urban Living* (London: Gaia Books Limited, 1992). Richard Rogers, *Cities for a Small Planet*, 1995 BBC Reith Lectures, ed. Philip Gumuchdjian (London: Faber and Faber, 1997).

Such pleas are highly evident in the ubiquitous symbol for recycling that, as fate would have it, is printed on so many discarded products. The winning entry in a competition sponsored in 1970 by the paperboard-packaging manufacturer Container Corporation of America, the now-ubiquitous recycling logo was originally designed by Gary Anderson, then a University of Southern California architecture student. The design, a rallying icon for green awareness, could not be simpler. Composed of three chasing arrows, the diagram circumscribes a closed-loop system. 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 loops," 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.

But 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 went on the defensive in the 1980s and early 1990s. Rather than mining natural sources, as was commonplace, mining discarded material took on a new urgency. 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 chasing arrows were printed on virtually everything – without ever being credited to their author.⁵

Though commonly correlated with a condition of stasis, material things are always 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, machines processing enormous amounts of physical substances, with the building sector alone absorbing up to 50 percent of all material resources used globally, while generating a similar proportion of construction and demolition waste.⁶ To make things more complicated, cities are formed by highly heterogeneous material composites made from a range of partially incompatible parts, all transforming at dif-

5. See Heather Rogers, *Gone Tomorrow: The Hidden Life of Garbage* (New York: New Press, 2005), 168–73.

6. John Storey, "An International Overview of Construction Materials Stewardship," in *Construction Materials Stewardship* (Wellington, New Zealand: Center for Building Performance Research, Victoria University of Wellington, 2008), 8.



AERIAL VIEW OF MOUND 1/9 AT FRESH KILLS, STATEN ISLAND, NEW YORK, SHOWING DEMOLITION CREWS SIFTING THROUGH DEBRIS FROM THE WORLD TRADE CENTER COLLAPSE AFTER SEPTEMBER 11, 2001. PHOTO: GREGG BROWN. COURTESY OF GETTY IMAGES.



BIRDS SCAVENGING MOUNDS OF REFUSE AT FRESH KILLS, STATEN ISLAND, NEW YORK, PRIOR TO ITS CLOSURE IN EARLY 2001. PHOTO: STEPHEN FERRY. COURTESY OF GETTY IMAGES.

7. Peter Baccini, "Cultural Evolution and the Concept of Sustainable Development: From Global to Local Scale and Back," keynote address delivered at the International Geographical Union (IGU) in Lucerne, Switzerland, 2007.

ferent rates of velocity in mutually dependent flows. 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 needs to be recovered.⁷

So, with the advent of the green revolution and the established maxim of the three Rs – reduce, reuse, recycle – a new chapter opens that offers the opportunity to potentially rewrite economic practices as we know them today. 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* (recycle), however, while at first met with resistance, has proven to be an economic boon. As a socio-technological fix, recycling requires its own industry, thus mandating more production and ensuring more consumption.

RE: REGULATE

It is also apparent that the knot of circles must be disciplined. The lesson of Bartertown, with its power clashes and disparate interests, reflects all too closely our real predicament today. To enforce compliance with principles of sustainable development, an additional *R* was introduced early in the game, for it became alarmingly clear that waste requires regulation. If capital ran its course unconstrained, it would more than likely leave the public behind. Legislation aimed at

BURNING RUBBISH USED TO BARRICADE STREETS DURING PUBLIC PROTESTS IN RESPONSE TO THE NAPLES GARBAGE CRISIS, MAY 19, 2008. PHOTO: MARIO LAPORTA. IMAGE COURTESY OF AFP.

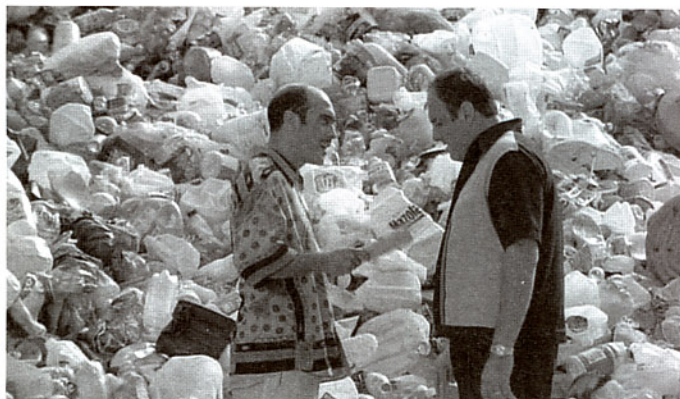


reducing pollution and ensuring more diligent waste management was put into place, including environmental policies, taxes, levies, restrictions, and so forth, to control the entire life cycle of commodities, with similar austerity measures taken in the building industry. Bottom line: cities would have to become cleaner.

As might be expected, a tug-of-war ensued between commerce and government in the last decades of the 20th century, setting the tone for their relationship 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 were either lax or nonexistent. Meanwhile, 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 concerns to the financially alluring prospects of exploiting waste. Recognizing in the interim that garbage means business, government response, mostly in the US and partially in Europe, has been to reconsider draconian policies (such as regulating consumption) and make it easier for companies to benefit from refuse. What one encounters here is a constant give and take – with “bartering” the name of the game (buying, selling, repackaging, and leveraging waste).

Insofar as waste is a repressed phenomenon, it has always lurked in the nether world of social life. With waste made invisible, covert regimes have enjoyed free reign below the radar. While the formal sector is engrossed in administering the logistics of refuse, other players silently operate in the margins. Here, clandestine industries flourish. Manhole covers, copper pipes, and aluminum panels, for instance, are stolen and sold on the black market for considerable sums, thus revealing the hidden worth of the city as a veritable mine. Off the books and under the table, the black market

STILL FROM THE PREMIER TV EPISODE OF *THE SOPRANOS*, JANUARY 10, 1999, SHOWING TONY SOPRANO OFFERING AIRLINE TICKETS FOR A FORCED VACATION TO A SYNDICATE MEMBER. IMAGE COURTESY OF HBO.



8. Tracy Wilkinson, "Italians Raise a Stink Over Trash," *Los Angeles Times* (January 8, 2008): A5.

9. Roberto Saviano, *Gomorra: A Personal Journey into the Violent International Empire of Naples' Organized Crime System*, trans. Virginia Jewiss (New York: Picador, 2007), 286.

can easily sink its talons into 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 municipalities 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."⁸ 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. Strangely 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. Construction, 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 codependent. As is common practice, companies throughout Italy contract the Mafia to do the dirty work of disposal, including illegal dumping, illegal waste exports, diluting toxic substances with other material, as well as falsifying customs documents and bills. Such services comprise what Roberto Saviano refers to as the business of *phantom refuse*.⁹ Outsourcing of this type relies on an unexpected reversal of economic principles, where money changes hands not to acquire things but rather to get rid of them.

The illicit activities of these Neapolitan syndicates do not end here – for common sense dictates that a 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

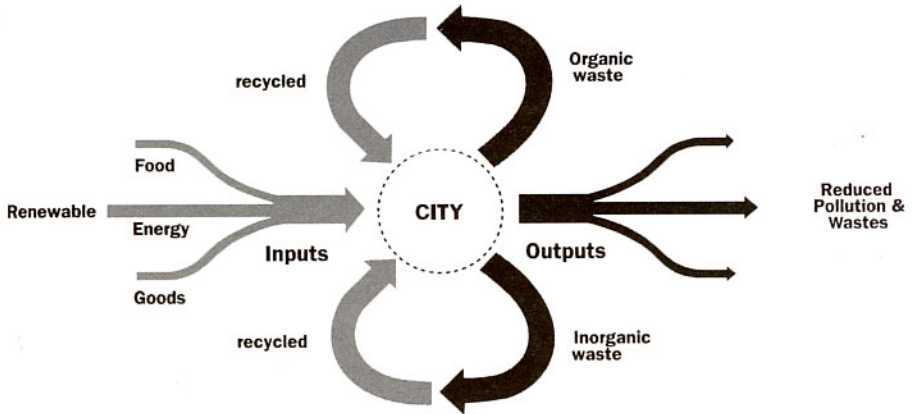
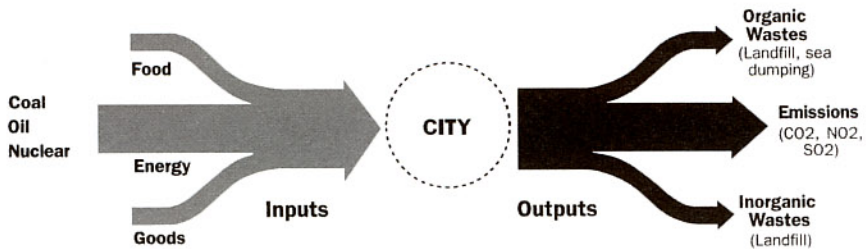


DIAGRAM COMPARING LINEAR AND CIRCULAR METABOLISMS IN CITIES, FROM RICHARD ROGERS, *CITIES FOR A SMALL PLANET* (1997). IMAGE COURTESY OF THE AUTHORS.

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 only a few. Such growth has given crime syndicates amazingly lethal power to paralyze entire cities and muscle them into submission, with Naples being the most recent example.

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 with the series, *The Sopranos*. Here, the main protagonist is officially in waste management, a vocational cover for his underworld activities as the *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 suppressed psychological woes, which – in keeping with good Freudian practice – require therapy. His analyst is surely “accustomed to . . . concealed things from unconsidered and unnoticed details, from the rubbish-heap . . . of our observations.”¹⁰

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. By then organized crime had

10. Sigmund Freud, “The Moses of Michelangelo” (1914), in *The Standard Edition of the Complete Psychological Works of Sigmund Freud*, vol. 13, ed. and trans. James Strachey, et al. (London: The Hogarth Press, 1953–1974), 222.

GREENPEACE ACTIVISTS PAINTING
 “L’EUROPE INTOXIQUE 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. PHOTO: CHRISTIAN ASLUNG.
 COURTESY OF GREENPEACE.



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.”¹¹ 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 agreement 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 dismantled by government agencies seeking to stop 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 went corporate.¹²

In the space opened up by the crackdown, companies moved in and capitalized on a lucrative market in much the way organized crime had, 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.¹³ 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 took over public works functions of municipalities, formally pri-

11. Rick Cowan and Douglas Century, *Takedown: The Fall of the Last Mafia Empire* (New York: G.P. Putnam, 2002), 14.
 12. Rogers, *Gone Tomorrow: The Hidden Life of Garbage*, 183–86.
 13. A third player in waste management in the US was Allied Waste, which merged with Republic Services in 2008 (combined employees totaling 35,000). Republic Services is traded on the New York Stock Exchange. See <http://www.republicservices.com> for a PDF of the 2009 “Sustainability Report.”

vating waste management. As such quasi-monopolistic 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 lax or nonexistent, and ethics not an issue. The irony is that while the bulk of consumer goods is increasingly produced in the developing world, the majority of consumption-generated detritus is now also deposited there.¹⁴ Affluent nations are now nothing more than a middle world, an intermediate circuit in material flows constantly crisscrossing the planet.

These flows 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 that divides legal from illegal in this industry is so thin as to be negligible, garbage offers a good foil to hide behind. An extreme case 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 1989 Basel Convention, which was ratified to regulate "transboundary movements of hazardous wastes" particularly from developed to less developed countries.¹⁵ 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 too eager to wash their hands of toxic waste.

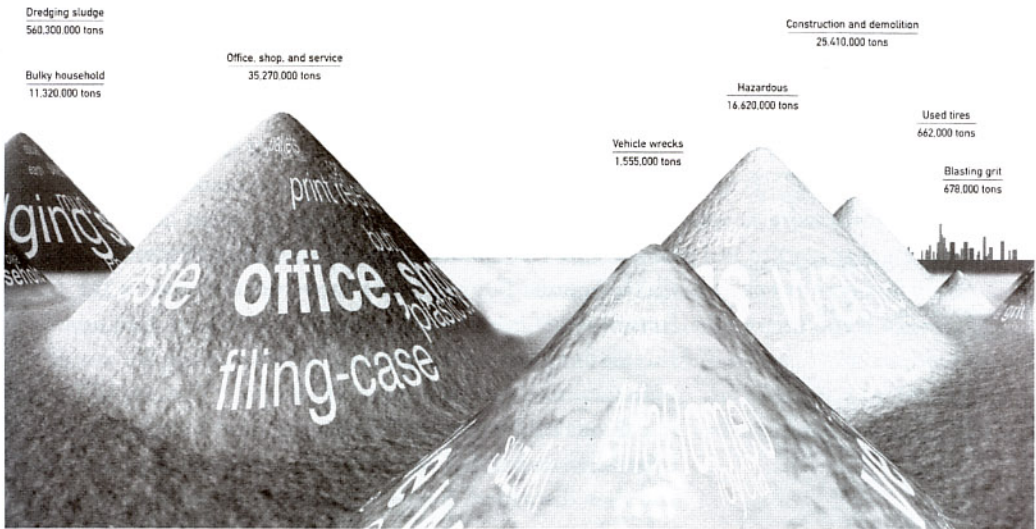
RE: REFRAME

Rumor has it that a fourth installment of *Mad Max* is in preproduction. With the script still open, we might consider possible scenarios for that future "just a few years from now." At the end of the trilogy, surviving nomads had 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 sequel – *Fury Road* – suggests, the journey to paradise will be bumpy. In our time, sustainable development holds out a similar promise of delivery from dire circumstances, for its premises and objectives are perhaps the best known options at our disposal. However, calls for sustainability have been primarily cloaked in the moralistic language of 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

14. Rogers, *Gone Tomorrow: The Hidden Life of Garbage*, 184–88.

15. The "Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal" is an international treaty signed by 172 parties on March 22, 1989, in Basel, Switzerland, and effective as of May 5, 1992.

One year of waste production...



MVRDV, ILLUSTRATION SHOWING HEAPS OF TRASH ACCUMULATED IN A HYPOTHETICAL CITY OF 160,000 SQUARE KM. AND GENERATED DURING A PERIOD OF ONE YEAR.

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 growth has never been a part of its enterprise. As a matter of fact, no one can turn down the growth machine of capitalism for long. Thus, one strategy could be to capitalize on this internal momentum, taking advantage of the collective drive for prosperity, but to the nth degree. This means discarding the rhetoric of guilt in favor of redirected forms of expenditure. As Georges Bataille argued some 40 years ago, 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.¹⁶ He shrewdly points out that any living organism receives more energy than is necessary for sustaining life. Supplied primarily by the sun, this excess energy, which he equates with wealth, can either be absorbed for growth or expended. Understood in these terms, we are in possession of a vast and untapped abundance of renewable energy sources. This argument holds for matter as an equally renewable resource, and specifically for waste. Bataille is somehow “in favor of waste,” but he reframes it and renames it “expenditure,” jettisoning its pejorative stigma and recasting it instead

16. See Georges Bataille, *The Accursed Share: Vol. 1, Consumption*, trans. Robert Hurley (New York: Zone, 1991), “The Meaning of General Economy” and “Laws of General Economy,” 19–41. Bataille’s *La Part maudite* (1949) was published in two volumes in English. The second is *The Accursed Share: Vol. 2, and 3, The History of Eroticism and Sovereignty*, trans. Robert Hurley (New York: Zone, 1993).

17. See Allan Stoekl, *Bataille's Peak: Energy, Religion, and Postsustainability* (Minneapolis: University of Minnesota Press, 2007), Chapter 5, "Orgiastic Recycling," 115–49.

18. The term *orgiastic recycling* has become something of a cultural phenomenon, perhaps best documented in Agnès Varda's film *The Gleaners and I* (*Les glaneurs et la glaneuse*), 2001.

19. See Gilles Deleuze and Félix Guattari, "1837: Of the Refrain," *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. Brian Massumi (Minneapolis: University of Minnesota Press, 1987), 310–50.

20. Italo Calvino, *Invisible Cities*, trans. William Weaver (San Diego: Harcourt Brace Jovanovich, 1974), 115.

21. *Ibid.*, 114.

as a "gift."¹⁷ Lest this seem anti-ecological, it is actually a call for understanding refuse in all its heterogeneity both as wealth to be mined and as a material endowment to be recycled, reprocessed, and recirculated.¹⁸ Framed as an economic principle, waste is expenditure with return. It must be granted new functions rather than 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 available resources 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.¹⁹

Such a refrain, unfortunately, failed to inspire one of Italo Calvino's invisible cities. He writes, "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."²⁰ The real consequences are well known: cities become buried in the rubbish they try in vain to reject. Although classified under the heading of "Continuous Cities," Calvino's fable does not portray 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."²¹ 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, sustained by the constant transformation of matter and energy at hand, without beginning and without end.

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