Book Review: Beyond Individual Action

Total Garbage and the Case for Collective Change

Review of *Total Garbage: How We Can Fix Our Waste and Heal the World* by Edward Humes, Avery Publishers, 2024

Reviewed by Neil Seldman

> *Neil Seldman has been covering the political economy and political theory of Zero Waste in the US for the past 50 years. His book reviews inform organized citizens, government officials, and businesspeople on the latest thinking and developments and their implications for municipal solid waste.*

Total Garbage by Edward Humes is not totally about garbage. Humes devotes the first quarter of the book and an appendix to the discussion of municipal solid waste, or garbage. The rest of the book focuses on other wasteful sectors of our economy: energy, transportation, and industrial agriculture. This review will focus only on the author's thoughts about solid waste.

Humes is a Pulitzer Prize and PEN award winner, and has published 16 books, including a book on solid waste, *Garbology: Our Dirty Love Affair with Trash*, published in 2012. Written 10 years later, *Total Garbage* is polished and features revealing facts, as well as mini-biographies of talented and influential entrepreneurs, researchers, and activists. His prose combines meaningful anecdotes and hard data to describe the US waste challenges of our day. He is mostly concerned with plastics, as well as the pathogenic viruses and antibiotic-resistant bacteria that thrive on plastic, directly threatening nature and its inhabitants, including humans.

Recently, Bob Geddert, veteran solid waste and recycling manager and Zero Waste activist, noted that "plastics cannot be molded to fit the circular economy," as it fails to meet the three required principles. These are:

- Eliminating waste and pollution
- Circulating products and materials at their highest value
- Regenerating nature

Geddert concludes that all forms of fossil fuel-generated plastic fail this litmus test. *Total Garbage* tells us exactly why. When Humes narrows his focus mostly to individual actions to address the crisis, he limits the relevance of these actions. Solving the plastics crisis and the broader solid waste crisis will depend not on individual behavior, but on collective action organized by citizens and small businesses that demands a new set of rules for the economy: bans on packages and products with toxic elements, banning disposal of organic materials in landfills, and bans on new garbage incinerators, along with shutting down the country's current incinerators. The latter facilities are euphemistically referred to as "waste to energy," when they are actually wasting energy, destroying materials that could instead save as much as two to three times more energy than incineration produces, without the deadly pollution from lead, mercury, cadmium, and acid gases.

The Missing Movement

Curiously, *Total Garbage* glides over the incineration issue without much comment. Yet *Garbology* contains an excellent discussion of garbage incineration, which captures the spontaneous outpouring of citizen outrage as hundreds of citizens in the north Los Angeles County town of Duarte, CA, inundate city hall to stop a planned 10,000-ton-per-day incinerator. Humes also described the lengthier battle to stop five planned 1,000-ton-per-day incinerators in Los Angeles' Black, Brown, and Asian communities.

Even as citizens campaign to shut incinerators and prevent new ones from being built, Humes chooses not to dwell on this remarkable example of organized citizens in action.

Any victory over the solid waste crisis will emerge from the grassroots, as the recent history of the US recycling, anti-incineration, and Zero Waste movements have shown.

While *Total Garbage* accurately depicts the runaway consumption in the US, it does not refer to the deep determinants that reshaped and manipulated the country's economy into a throwaway society. There is ample literature from this post-WWII era detailing the manipulative strategies employed in the Advertising Age.

The Plastic Crisis

Humes attacks the global plastic crisis head on. There is no escaping this ubiquitous material and the 2,400 toxic elements contained in microplastics, whether we are drinking water melted in Alaska or swimming in the Caribbean Sea. It is unclear if Humes states that we each consume the equivalent of one plastic credit card per week or per year. But it is clear that this invasion of our bodies poses an array of unknown threats, bringing to mind Rachel Carson's profound warning that we have allowed our technology to take us too far without understanding the consequences to life on earth. If the 20th Century was the American Century, as proclaimed by Henry Luce in 1940, it is a century of prolific waste. Our 4% of the population consumes 24% of the world's resources and turns these into eight pounds of waste per capita, or over a ton per year. Solid waste, particularly plastic waste, Humes writes, is "the true battle, challenge and opportunity of our age. It is the engine driving those seemingly unrelated unstoppable global crises." By focusing on untapped ways to reduce waste, Humes shows how we can address this "elusive foe" which is "deeply embedded" in our economic, environmental and social systems.

Humes traces the origin of today's 400-million-ton plastic industry to Dr. Leo Baekeland in 1924. *Total Garbage's* description of the evolution of Bakelite and

the plastic bottle provide the necessary grounding in the plastic crisis for novice and veteran Zero Waste activists alike. Humes provides an ample description of the China debacle for US recycling in 2018. China banned imports of recycled materials with up to 50% contamination, leading to squalid "recycling villages" where hand sorting and primitive processes contaminated land, water, workers, and villagers. In the US, China's "National Sword" policy wrought havoc on local recycling programs. "What had been a revenue source suddenly became a massive expense that staggered towns and cities across America: Stanford, Connecticut, went from earning $95,000 from its recyclables in 2017 to losing $700,000 in 2018. Prince George's County, Maryland, went from earning $750,000 to losing $2.7 million." However, Humes does not note that while the US recycling rate dipped from 35% to 32%, recycling rebounded to 35% within two years, driven by over $5 billion of industry investment in domestic markets for recycled paper, plastic, and electronic scrap.

Another shortcoming appears in Humes' treatment of aluminum and glass recycling. "Aluminum is, like glass, infinitely recyclable, and though recycling both materials saves energy and reduces pollution, aluminum is the superstar," which reduces energy needed to make new aluminum cans by 95%. Yet aluminum can recycling is a dirty business, which yields 25% caustic chemicals, referred to as aluminum dross. Aluminum dross can be processed to recover valuable chemicals, but industry chooses to landfill the highly reactive material. Similarly, Humes is silent on the national scandal in glass recycling, which reduces energy needs in producing new glass products by 20% to 30%. The use of recycled glass also extends the life of expensive equipment in the glass-making process. Glass manufacturers currently use as much glass as they can get, but this is limited to about 30% of the feedstock. They would like to use as much as 90% recycled glass, but they cannot get enough "glass cullet" for their vats because Big Waste companies refuse to invest in cleaning up the glass to industrial quality materials. The mix of glass, plastic, and fibrous materials that comes from their single-stream processing lines is used for landfill daily cover, thus limiting energy savings and the number of industrial jobs in glass insulation and bottle manufacturing, construction, and abrasives industries.

Inspiring Individuals

Humes places his hopes for change in "ordinary folks." First, he advocates improving upon the original three-pronged recycling motto of Reduce, Reuse, Recycle by expanding to its eight-pronged message of Rethink, Repower, Refuse, Reduce, Reuse, Repair, Recycle, and Rot.

Humes then introduces us to not-so-ordinary people. The Metzger father-and-son entrepreneurs used their imagination for collecting used materials from their neighbors (paint, turpentine, lawn chemicals, Christmas lights, Styrofoam, Halloween candy) and created a thriving resale enterprise. The company Ridwell discovered solutions for numerous household products often discarded in the waste stream, such as multi-layer plastic food bags, plastic bags and packaging, lightbulbs, used kitchen wear, and used textiles.

Jenna Jambeck is a professor of environmental engineering at the University of Georgia whom Humes declares is the world's first "Trash Genius." She is a MacArthur Foundation Laureate based on her groundbreaking work on plastic pollution with the development of a Circularity Assessment Protocol (CAP), which gathers data on packaging in our supermarkets and opens the eyes of shoppers to the absurdity of dangers their everyday choices hold.

Sarah Nichols worked for eight years organizing and coalition building to pass a unique Extended Producer Responsibility (EPR) law in Maine. It is the only such law that fulfills the promise of applying the Polluter Pays Principle. There is no Producer Responsible Organization in the Maine version of EPR, thus embedding the skills necessary for administering this complex law in public servants and retaining the institutional knowledge in the public domain. The other state EPR laws abdicate administration to PROs dominated by the very industries that produce the waste we want to eliminate. As Elizabeth Balkan of the Reloop Platform notes, unless reuse and Zero Waste is embedded in EPR systems, they will not move us forward.

Can you reach Zero Waste with a PRO in control? It would have been good for Humes to weigh in on this issue.

The Power of Collective Action

The "ordinary" people Humes rewards by telling their stories are inspiring. But even more inspiring are the "unordinary" people, homemakers, flight attendants, stand-up comics, WWII Air Force veterans, lawyers, doctors, teachers, students, environmentalists and more, who comprise the front line troops of the Zero Waste movement. They are members of local Sierra Clubs, local chapters of Clean Water Action and Beyond Plastics, and Zero Waste organizations, and dedicated staffers of groups such as Energy Justice Network, Global Anti Incineration Alliance, Zero Waste International Alliance, Center for Health Environment and Justice, Green Education and GreenAction for Health and Environmental Justice. These people and organizations are pushing the collective action to change the rules we live by so that no company can produce a product or package that does harm to workers, consumers, or nature. These ordinary people mobilize public action for the change that Humes and all of us want and require for a positive and just future for the US and the planet.

Bottom-up change has been the calling card of the recycling, anti-incineration, and Zero Waste movements. Local changes such as mandatory recycling and composting, plastic bag bans, and taking organics out of landfills and incinerators ripple up to form state policies. The Biden administration recognized the need for top-down action to support bottom-up change. Hundreds of millions of dollars flowed to local governments, composting, recycling, and reuse programs and enterprises.

No one expects the progress to continue now that Trump has regained control over the levers of power. But you can count on the tens of thousands of Zero Wasters in our midst to continue the battle and have the stamina to outlast the next four years. We must change the rules of the economy so that capital is transferred from subsidies for extracting virgin resources to subsidies to cities and counties and companies that supply the economy with secondary resources, repaired products, and safe packaging. And as well, so that plastic is taxed at the wellhead of production, and so that refillable containers are on our grocery shelves.

We will all breathe easier when this time comes.

Further Reading

Total Garbage's 55 pages on our solid waste management provide an excellent introduction to our current crisis of waste and in particular the threat from plastic waste. Humes' clear and smooth writing makes it a pleasurable read.

If *Total Garbage* falls short in ways mentioned in this review, it should not stop those interested in this critical subject from investing their time in its pages. Two other new books on plastics should complement *Total Garbage*:

A Poison Like No Other: How Microplastics Corrupted Our Planet and Our Bodies by Matt Simon, Island Press, 2024, describes what happens when plastic breaks down and the real problems begin.

Rethink Plastic: The Impacts of Plastics on Planet Earth by Bob Geddert, to be published Earth Day 2025, describes the impacts on human health and climate change of household use of plastics and provides a six-step action plan.

For those interested in the broader question of how to rebuild a decentralized economy that supports Zero Waste principles, see my review of *Reinventing the Supply Chain: A 21st Century Covenant with America* by Jack Buffington. Buffington makes the case for community-based manufacturing and resource management systems that align with the grassroots organizing strategies essential to achieving Zero Waste.