

CRADLE-TO-CRADLE: THE ELIMINATION OF WASTE INTRODUCTION

By Megan Backsen & Jack Hornickel

Each year the *Vermont Journal of Environmental Law* (“VJEL”) hosts experts, lawyers, academics, and practitioners to focus on one topic. As the only environmental law journal at Vermont Law School (“VLS”), the premier environmental law school, VJEL is acutely aware of its role in guiding environmental discourse. Accordingly, this year, VJEL chose to address the broad topic of waste, challenging the assumption that waste is an inherent part of modern life. Titled *Cradle-to-Cradle: The Elimination of Waste*, the 2014 VJEL symposium was composed of a keynote speaker, four panels that each focused on a different waste stream, and a series of interactive events.

At a time when so many other crises appear more pressing, the issue of waste remains pernicious. Academics and governments alike continue to view the steady accumulation of garbage as a threat to orderly life. This is evidenced by the plastic bag ban in California, the New York City Styrofoam ban, mandatory composting in San Francisco and Portland, Vermont’s electronics recycling law, improvements in energy transmission, gray water systems, etc.

The keynote address by Lauren Valle, with John Todd Ecological Design, opened the day with a discussion of the theories of ecological design, their application to the restoration of waterways, and detailed explanations of specific projects. A complete transcript of her keynote address is published below.

The panel series began with *Lost in Transmission: Energy Waste*. The panel featured Scudder Parker of the Vermont Energy Investment Corporation, who discussed the inefficiencies of energy transmission and home use. Following was Adam Kron, an attorney with the Environmental Integrity Project, whose article on wastewater from hydraulic fracturing is published below. Finally, VLS Professor Hillary Hoffmann highlighted a unique intersection of energy waste and civil rights by telling the story of an Indian tribe that was forced to accept hydraulic fracturing wastewater on its reservation.

The next panel, *Flotsam, Jetsam, & Plastic: Ocean Waste*, was led by Dr. Kara Lavendar Law, a research professor of oceanography at the Sea Education Association. Dr. Law addressed the insidious problem of micro

plastic waste in the ocean water column while debunking the myth that marine plastic debris gathers in large garbage patches visible from outer space. Nicholas Mallos, a conservation biologist with the Ocean Conservancy, continued the conversation by discussing his organization's Trash Free Seas Alliance, which works with members of industry to help developing nations erect the necessary infrastructure to properly deal with increasing waste generation. Finally, Megan Herzog, the Emmett/Frankel Fellow in Environmental Law & Policy at the UCLA School of Law outlined the local, state, and federal policy initiatives that address the problem of marine debris. VJEL recently published her work on its EcoPerspectives blog.¹

After lunch, the symposium tackled the evolving issue of e-waste in *Planning Against Obsolescence: Electronic Waste*. The panel began with Dynda Thomas, an attorney with Squire Patton Boggs, representing technology companies that must report their sourcing of so-called conflict minerals to comply with new rules from the Securities and Exchange Commission ("SEC"). Congress charged the SEC with monitoring certain minerals—tungsten, tin, tantalum, and gold—because of their necessity in electronics and their contribution to armed conflict in the Democratic Republic of the Congo. Following Ms. Thomas was Deborah Albers, the Principal Social Strategist of Corporate Responsibility for Dell Computers who explained how the manufacturers of electronics can design products with replaceable and recyclable components. Perhaps Sarah Westervelt of the Basel Action Network, an organization working to enforce the international convention on global toxics trade, introduced the most fascinating link between electronic waste and law. Her article, co-authored by Whitney Beckham, outlines the successes and failures of the Basel Convention and is published below. Cathy Jamieson rounded out the e-waste panel by explaining the landmark solid waste legislation in Vermont, which mandates electronics recycling and created a network of collection centers for easy access.

The final panel of the day was *Clean Plate Club: Agricultural and Food Waste*. First, Jean Bonhotal, of Cornell's Waste Management Institute, framed the issue of agricultural waste by simply asking, "what do we do with all of it?" Texas, for example, applies compost to the embankments along its state highways to grow grass, which captures carbon, absorbs heat, and combats erosion. Karl Hammer, owner of Vermont Compost Company, explained the unique challenges of operating

1. Megan Herzog, *Zero Trash: Using the Clean Water Act to Control Marine Debris in California*, ECO-PERSPECTIVES (Jan. 26, 2015), <http://vjel.vermontlaw.edu/zero-trash-using-clean-water-act-control-marine-debris-california/> [<http://perma.cc/MVZ9-VJZ5>].

a commercial compost facility, while keeping the audience rolling with laughter. Theresa Snow concluded the panel by describing her groundbreaking work with Salvation Farms, a non-profit organization she founded to better manage surplus farm products in Vermont. Ms. Snow coordinates gleaning—the harvesting of edible but unmarketable farm produce—and even works with prisoners to process the otherwise wasted foods into packaged bulk products.

However, *Cradle-to-Cradle* was not simply a recitation of research and legal analysis; the event itself was an exercise in waste diversion and reduction. Attendees were served a lunch of soup, sandwiches, and salads, sourced primarily from South Royalton's own Luna Bleu Farm. For the attendees that were not card-carriers of the Clean Plate Club, volunteers from VJEL and the VLS Campus Greening Committee collected uneaten food scraps. In total, VJEL collected six quarts of food scraps and diverted them to nearby Hurricane Flats for on-farm composting and reintegration into the nutrient cycle. VJEL invited attendees, at the conclusion of the event, to a guided tour of the VLS campus, highlighting the Clivus Multrum composting toilet system and two solar arrays that help to power the law school.

On display for the month surrounding *Cradle-to-Cradle*, VJEL also hosted an exhibition of 'Seven Days of Garbage' by Los Angeles photographer Gregg Segal. The series of ten images were portrayals of families, roommates, and individuals, literally covered in a week's worth of their own garbage. The graphic, compelling images demonstrated the sheer volume of trash generated by consumers in our one-time-use society. Mr. Segal's website holds the entire series.² VJEL also commissioned Brooklyn-based illustrator Alix Pentecost Farren to produce the artwork for *Cradle-to-Cradle*. Her cyclical representation of a unified waste stream perfectly captured the essence of the event and provided an identifiable image for its promotion.

Cradle-to-Cradle was an overwhelming success, and VJEL was happy to share its environmental vision with the legal, scientific, and lay communities. For those that were unable to attend, the entire event is available for viewing on VJEL's YouTube page.³

2. GREGGSEGAL PHOTOGRAPHY, <http://www.greggsegal.com/> [<http://perma.cc/D6MC-T5ZK>] (last visited Feb. 27, 2015).

3. Vermont Journal of Environmental Law, *Symposium Videos*, YOUTUBE (Dec. 27, 2014), https://www.youtube.com/channel/UCtp-8YqefT55Vs9CA_Yqxnw [<http://perma.cc/7VWV-4HEV>].