



## TEACHING MATERIALS

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**Dear Colleagues:**

Thank you for considering adopting the 2010-11 Winona State “Common Book,” Heather Rogers’ *Gone Tomorrow: The Hidden Life of Garbage*. The Common Book Project brings together a large community of readers in the discussion of a single work.

Through exhaustive research and surprising revelation, *Gone Tomorrow* details what happens whenever we eat take-out, buy shoes, or discard packaging. The United States is the planet’s number one producer of garbage, with each American throwing out 4.5 pounds of trash daily. *Gone Tomorrow* shows how we end up with this much waste—where it all goes, and what it ultimately costs.

*Gone Tomorrow* provides many opportunities for interdisciplinary study. It addresses concerns of environmentalism, sustainability, waste management, corporate communications, public relations, marketing, packaging, recycling, and consumerism. Rogers’ book will be adopted in a range of classes across the curriculum as well as in many sections of first-year composition.

These teaching materials, researched and designed by English graduate assistants Tammy Brians, Matt Elsen, and Eric Ling, are provided as a courtesy for your classroom use. They are designed primarily for adopters in introductory composition courses but may be used or revised in any course in any relevant area. This packet contains general suggestions for teaching the book; questions for reading and discussion; writing projects; and suggestions for further reading and viewing.

**Other information:**

- **Faculty adopters** should simply list the book (ISBN 978-1-59558-120-4) on their book request form through the WSU Bookstore.
- **Desk/examination copies:** *Gone Tomorrow* is published by The New Press: more information about the book is available from the author’s website, <http://www.gonetomorrow.com>, and examination copies are available from The New Press at <http://www.thenewpress.com>.
- **Author visit:** Heather Rogers will appear at WSU October 12 & 13, 2010 to discuss *Gone Tomorrow* and her recent research.
- **Related programming** will be publicized as the academic year begins.
- **For additional copies of these materials:** contact J Paul Johnson at [pjohnson@winona.edu](mailto:pjohnson@winona.edu).

Sincerely,



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## INTRODUCTION

### *Gone Tomorrow: The Hidden Life of Garbage* – Teaching Materials

The following teaching materials packet is divided into five sections. Each section then provides, in sequence, teaching suggestions, vocabulary lists, reading questions, discussion questions, and research questions. After section five follows a related bibliography, filmography, and scientific glossary.

In the **teaching suggestions**, ideas for classroom activities connect the students to the content of the book. The teaching suggestions also contain websites for additional related materials. Although Heather Rogers seamlessly blends the technical jargon of science with historical facts to tell a powerful story, a **vocabulary list** has been included in each section. We include words that might cause some students difficulty. In the **reading questions** sections, we included mainly recall questions that can be used to gauge whether students are reading and comprehending the text. **Discussion questions** differ from reading questions in their scope and depth of information, prompting students to think more critically about the topics at hand. Lastly, a list of potential **research questions** to provide students an opportunity for further learning about the concerns addressed in *Gone Tomorrow: The Hidden Life of Garbage*.

The **bibliography** provides a list of resource materials. Rogers cites some of the materials mentioned in the bibliography, and some were used in the creation of these materials. Also included are other sources that have topics related to the themes in *Gone Tomorrow: The Hidden Life of Garbage*. The **filmography** provides a description of several films that cover topics similar to those that appear in Rogers' book. Several films have been viewed and summarized and a list of other related films are provided. The **scientific glossary** contains definitions of the scientific terms and technical jargon found in the book.

We hope that this booklet will be a helpful resource as you teach *Gone Tomorrow: The Hidden Life of Garbage*.

**MATERIALS: SECTION ONE (INTRODUCTION & CHAPTER 1, pp. 1-27)**

**Teaching Suggestions**

1. The prologue to the Disney/Pixar film *WALL\*E* (dir. Andrew Stanton, 2008) presents a Chaplinesque take on a dystopian scenario directly related to the topic of *Gone Tomorrow*. Ask students to view the first 15 minutes of the film and unpack its assumptions about the environmental impact of unchecked waste and its management.
2. Have students watch the short film *The Story of Stuff* (<http://www.storyofstuff.com>) for an informative and engaging overview to U.S. production and consumption.
3. Rogers introduces the concern about the ever-expanding garbage problem in the United States. Have students identify the main points of the Introduction. What information is new to them?
4. Ask students what they know about the garbage system from their hometowns or from Winona. Have your students heard of any controversies regarding these systems of garbage removal? Then, assign groups of students to search online databases for local news stories or incidents of disposal, recycling, or pollution.
5. Ask students to look or search for a site that has been impacted by waste—a landfill, perhaps, a community, or a plant, and to begin collecting information about it for a later research report (formal or informal, oral or written). For an example, students might read this short, but sobering, account of a trip to Kahuku Beach in Oahu:  
[http://www.treehugger.com/files/2010/07/designing\\_for\\_plastic\\_reincarnation.php](http://www.treehugger.com/files/2010/07/designing_for_plastic_reincarnation.php).
6. As students begin reading the book, have them keep track of the various methods for disposing of garbage. In addition, students can make a list of the positives and negatives for each method described.

**Vocabulary**

**Introduction—**

**estuary** (1) *n.* — the tidal mouth of a large river, where the tide meets the stream

**phantasmagoric** (2) *adj.* — representative of images seen in a dream

**rejectamenta** (4) *n.* — things or substances regarded as worthless

**metastasize** (4) *v.* — spread or grow, esp. unfavorably

**aquifer** (4) *n.* — a body of permeable rock that can contain or transmit groundwater

**onerous** (5) *adj.* — involving an amount of effort and difficulty that is oppressively burdensome; involving heavy obligations

**ubiquitous** (5) *adj.* — present everywhere

**Chapter 1—**

**palliative** (11) *adj.* — relieving pain or alleviating a problem without dealing with the underlying problem

**effluent** (11) *n.* — liquid waste or sewage discharged into a river or the sea

**dross** (12) *n.* — something regarded as worthless; rubbish

*fetid* (13) *adj.* — smelling extremely unpleasant

*cloying* (13) *adj.* — disgusting or disagreeable by reason of excess

*slough* (15) *v.* — drop off; shed

*circumscribed* (15) *v.* — to restrict within prescribed limits

*perpetuity* (16) *n.* — forever

*flue* (24) *n.* — a duct for smoke and waste gases produced by a fire, a gas heater, a power station, or other fuel-burning installation; a channel for conveying heat

*benign* (26) *adj.* — not harmful (to the environment)

### Reading Questions

#### Introduction—

1. What recent statistics support the fact that the United States is the leading producer of garbage? **The U.S. consumes 30% of the world's resources, produces 30% of the world's garbage, and yet has only 4% of world's population.**
2. How many pounds of garbage are made by the average American each year? **1,600 pounds per year; about 4.5 pounds per day.**
3. Has the U.S. signed the Kyoto Protocol? **No.**
4. Name one of two harmful effects of landfills. **Toxic runoff pollutes aquifers and decomposing garbage releases methane.**
5. What percentage of U.S. products are used once and then discarded? **80%.**

#### Chapter 1—

6. Where are transfer stations most commonly located? **Near poor and working class neighborhoods, highways, waterways, and railroads.**
7. Why is aluminum the only material regularly recycled? **It is the only profitable material.**
8. What feature is common at new landfill storage sites? **They have cells that are supposed to hold garbage in perpetuity.**
9. Who is responsible for dealing with contamination from the new storage cells? **The company has responsibility for leaks 30 years after closing the cell. The public must clean any leak thereafter.**
10. Why is incineration not more widely used for the disposal of garbage? **Incineration requires a great deal of capital up front, constant maintenance, and larger numbers of skilled workers.**

### Discussion Questions

1. Is garbage inevitable? Why do Americans produce so much of it?
2. Rogers claims, "Many people feel guilty about their waste and helpless over how to avoid it" (2). How accurate is this assessment of people's guilt and helplessness?
3. Having read about the devastating effects on the environment caused by garbage, what can you do to limit the impact you have on the environment?

4. Rogers claims that much of the material that is recycled “ends up at the landfill or incinerator, having found no buyer on the other end” (6). How effective is recycling in general, and under what circumstances can such programs be made more effective?
5. Rogers mentions that U.S. manufacturers are not legally required to use recycled materials in the creation of their products; however, businesses are allowed to use the recycling symbol on non-recycled products (6). What are some products that do so? What do you think about this practice?
6. Recent estimates put the income from garbage collecting at \$50 billion per year. What is the impact of this economic profit on the environment?
7. Rogers mentions that smaller garbage businesses cannot compete with the larger corporations because of the high costs associated with the new methods of disposal (20-21). What are the implications of the consolidation of businesses in the garbage industry?
8. Rogers lists the various PR slogans used by garbage disposal companies (24-25). What is the purpose of the educational activities of the waste companies? Compare these slogans with those employed by companies in other industries.
9. Why would the WMI facility host an “electronics recycling event in a nearby town” if they had no intention of recycling the e-waste that comes out of it (25)? Is the company just blatantly misrepresenting its own actions by calling the event an “electronics-recycling event”? Is this type of misrepresentation widespread or a simple anomaly? What are its effects?

### Research Questions

1. Rogers lists methane as one of the dangerous vapors that escape from landfills (4). A recent study (<http://news.bbc.co.uk/2/hi/science/nature/6638705.stm>) indicates that methane may be able to be harvested. How might such harvesting ameliorate landfill problems?
2. Rogers notes that in 2002 waste companies sold \$1 billion dollars of garbage to foreign countries (9). What are these countries doing with the garbage that they purchase from the United States?
3. Rogers highlights the role of paper in the waste cycle. She writes, “the bales of paper will be loaded onto another truck and, like other salvaged materials, hauled either to a recycling center or more likely to a broker for resale” (15). What does a broker do with paper waste that has not been recycled?
4. In light of events over the past several years (the sub-prime mortgage financial crisis or the B.P. oil spill to name just two), we have seen the potential risks of deregulation in favor of letting corporations regulate themselves. Rogers says that the Environmental Protection Agency (EPA) under the Bush Administration proposed “deregulating landfills nationwide, arguing that mandated environmental protections have become obstacles to innovation” (21). Were these regulations loosened? What has been the outcome of any changes you can determine?
5. Incinerators are designed to be environmentally safe. Rogers reports about one such incinerator that was “armed with minute-by-minute computer data on a smattering of the plant’s toxic releases and an annual third-party emissions audit” (24). What information can be found to substantiate the claims made by the industry that incinerators are safe? Who are the third-party auditors?

**MATERIALS: SECTION TWO (CHAPTERS 2 & 3, pp. 29-77)**

**Teaching Suggestions**

1. Have students create a timeline of the major events in this section. Keep track of the people and events that helped shape the garbage industry in the U.S. Have students look for connections between causes and effects from this timeline.
2. Have students watch the following video clip: <http://abcnews.go.com/WN/american-heart-secret-millionaire-helps-hometown-grave/story?id=10870876>. Is it worth being frugal to make a fortune? Have them compile a list of ways they could save money and cut down on waste.
3. Introduce students to Colin Beavan's No Impact Project (<http://www.noimpactproject.org>): Beavan attempted to live in the middle of New York City with as little environmental impact as possible. His site features a trailer for the documentary film *No Impact Man* (dir. Laura Gabbert and Justin Schein, 2009), excerpt from his book of the same name, a blog, and stories from contributors. Additionally, upon registration, educators can receive an excellent set of lesson plans addressing the environmental impacts of consumption, food, energy, transportation, and water. Although designed for students in grades 6-12, many of the activities therein (e.g. the alternative gift registry, the bottled water calculator, etc.) will be equally engaging for first-year college students.
4. Have students compare the different ways that a consumer can buy a product. For example, how many different ways can a consumer buy oatmeal? Compare the cost and the amount of waste from buying the individually proportioned packets to buying in bulk. Have students create a visual representation of the various methods.
5. Have students browse the Environmental Protection Agency website (<http://www.epa.gov>) to look for recent data related to waste management or a related concern. Working alone or in pairs, students can identify a fact or statistic and design an accompanying visual to introduce it to their peers.

**Vocabulary**

**Chapter 2—**

**profligate (33)** *adj.* — recklessly extravagant or wasteful in the use of resources

**agronomist (33)** *n.* — a specialist in soil management and production of field crops

**efficacious (34)** *adj.* — an effective means for producing a desired result

**offal (34)** *n.* — entrails and internal organs of an animal considered inedible; rubbish; refuse

**preponderance (35)** *n.* — the state of being great in number or importance

**abattoir (36)** *n.* — a slaughterhouse

**bourgeoisie (40)** *n.* — the middle-class of society; typically concerned with material wealth; not the working class

**priggish (41)** *adj.* — self-righteous behavior; acting as if one is superior to others

**miasma (42)** *n.* — a highly unpleasant or unhealthy smell or vapor

**imbricate (45)** *v.* — to overlap

**venality (47)** *adj.* — showing a willingness to take bribes

*legerdemain* (47) *n.* — skillful manipulation of hands when performing a conjuring trick;  
deception

Chapter 3—

*ablution* (63) *n.* — the act of cleaning

*putrescence* (67) *adj.* — undergoing the process of decay; rotting

*flotsam* (68) *n.* — things that have been regarded as worthless

*encomium* (70) *n.* — a speech or writing that praises someone or something

Reading Questions

Chapter 2—

1. From where did resourceful conservation in the early 1800s stem? **Conservation was directly linked to the availability and cost of manufactured goods. Products were mended and reused as long as possible.**
2. After the Civil War, manufacturing led to unprecedented levels and forms of waste. Due to corruption, where did the new waste accumulate? **In the city streets and in the slums.**
3. Waste in pre-industrial and early industrial societies is described as being mostly harmless. Rogers says, “the contents of the rubbish bin were relatively benign” (31). Why was this the case? **Most of the discards were organic, and those that were not were minimal enough to be absorbed back into the earth.**
4. Rogers describes historian Richard A. Wines’ concept of “expanded recycling” (35). How did this process function? **Farmers sold food and hay for animals to people in the city, and the people of the city collected animal droppings and sold it back to the farmers.**
5. What were some of the major consequences of the accumulation of filth in the poor neighborhoods? **Cholera, death.**
6. Instead of blaming the outbreaks of disease on garbage, to what did experts at the time attribute the spread of disease from poor slums? **They believed that the poor had bad morals, and the bad morals led to the spread of disease.**
7. What effect did the Civil War have on sanitation concerns? **Volunteer groups raised awareness of cleanliness because as many Union soldiers died from disease as were shot by Confederate soldiers.**
8. In what way did the Civil War impact the country’s garbage? **The Civil War unleashed manufacturing and industrialization, which in turn produced an unprecedented transformation in the quantity and quality of garbage itself (i.e., industrial garbage).**
9. Who played a pivotal role in transforming refuse collection and removal in New York City in 1894? **Colonel George E. Waring, Jr.**

Chapter 3—

10. What branch of science, at the turn of the century, had a profound effect on the view of germs and garbage? **Bacteriology.**
11. What was the driving force behind the sanitation movement in the twentieth century? **Economics and industry.**

12. What was the importance of street cleaning? **Clean streets helped to raise property values, and allowed for freer flow of the industrial infrastructure.**
13. What invention in travel greatly reduced the amount of waste that blocked the streets? **The automobile replaced horses and their waste.**
14. How did advances in industrialization change the nature of garbage? **Packaging, pushed by mass production, changed to disposable forms of paper and cardboard.**
15. What were some of the early methods of disposing of garbage? **Burying garbage in the land, dumping it in the bodies of water, and incinerating it.**

### Discussion Questions

1. A symbiotic relationship had been achieved between the farmers and city dwellers in terms of their “expanded recycling” (35). What prompted them to abandon such a mutually beneficial relationship?
2. Under Colonel George E. Waring, Jr., New York City shipped garbage to Barren Island in Jamaica Bay. According to one newspaper reporter, garbage workers sifted through the garbage and were able to salvage around sixty percent of the garbage (54). Is such a percentage achievable today? What percentage of garbage might be salvageable, and how could a higher percentage be salvaged?
3. Rogers quotes Waring: “Cremation means the destruction and loss of matter which may be converted into a source of revenue” (56). Could this rationale be a more effective campaign for recycling programs? Would people be more interested in recycling for money than for nature?
4. How did the view of garbage change at the beginning of the twentieth century? What role did the sanitation engineer play in this changing view?
5. Rogers claims that city officials often neglected poor or immigrant neighborhoods when directing street cleaning (63). What differences do you see between different neighborhoods from your own community? How do you think this reflects on the community as a whole?
6. Rogers quotes garbage historian Martin V. Melosi who says people do not “realize what the transition from animal power to mechanical power signaled for the city’s physical environment” (64). In light of recent events in the Gulf of Mexico, how true do you think this statement is for people of the twenty-first century in terms of not investing more into alternative energy sources?
7. Rogers claims, “Demonstrating reliability by keeping products clean and undamaged helped earn the trust of consumers suspicious of goods made by producers they did not personally know” (66). Why do people feel a connection to a company or a product if they have a certain kind of packaging?
8. Rogers describes the early representation of the engineer as “an entirely rational expert seeking only what’s right and best” (70). Why were engineers portrayed in this light?
9. As garbage retreated to the privacy of homes, what effect surfaced in the garbage industry? What were the positive and negative effects of this transition? If garbage had been kept in the public domain, would that have changed the nature of garbage in the U.S.? How?

### Research Questions

1. Rogers mentions that citizens in the eighteenth and nineteenth centuries worried about cholera outbreaks. In fact, cholera outbreaks were the given reason for rounding up the swine in 1847. What is cholera? How is it transmitted?

2. Amidst the historical shift of the populace from the rural setting to the urban areas, Rogers discusses the concept of primitive accumulation (50). Investigate this concept and explain the connection to this chapter.
3. Rogers claims, “Garbage as we know it today is one outcome of a fully realized capitalist system” (50). Research another country’s economic system and compare and contrast the ways that garbage is used and/or disposed there.
4. Throughout Chapter Two, Rogers makes several allusions to early discards being turned into soap and candles. What discards were used to make soap and candles? Are these methods still being used?
5. What are the possible environmental and health problems that can be caused by burying trash? Throwing trash into the rivers, lakes and oceans? Burning trash?

**MATERIALS: SECTION THREE (CHAPTERS 4 & 5, pp. 79-127)**

**Teaching Suggestions**

1. In groups, have students research Fordism and make a list of the different ways that Ford's assembly line changed the way American's live and work. Discuss what positive and negative effects have resulted from Fordism.
2. Discuss the ideology behind the "war effort" of World War II. How were citizens compelled to contribute to the war effort? How did this patriotism result in the higher consumption of goods? Then have students work in groups to research the ways that spending and consumption were promoted as patriotic ideas in the wake of 9/11.
3. In groups, have students research one particular government subsidy program. Have each group generate a visual aid that shows how the subsidy worked. Who did it help? Who did it prioritize? Who did it hurt? What were the positive and negative ramifications of the program? Was the program a long-term solution to a problem or more of a quick fix?
4. Discuss the ramifications of America's obsession with fashion in connection to the idea of built-in obsolescence. Have students examine clothing advertisements. Ask students to question who is targeted in the advertisement and what the advertisement says about the targeted audience.

**Vocabulary**

**Chapter 4—**

**nascent (79) adj.** – just coming into existence and beginning to show signs of potential

**disgorging (82) v.** – empty into a sea

**entombed (86) v.** – to bury or trap in or under something

**dragline (87) n.** - a large excavator with a bucket pulled in by a wire cable

**streamlining (88) v.** - to make more efficient and effective by using faster or simpler methods

**nomenclature (90) n.** – the devising of a name for something especially in science or other disciplines

**megalomaniacal (92) adj.** – being obsessed with one's own power

**inimitable (94) adj.** – so good or unusual as to be impossible to copy

**Chapter 5—**

**plethora (103) n.** – an excess of something

**epoch (103) n.** – a period of time in history, typically marked by notable events or particular characteristics

**capital (108) n.** – wealth in the form of money or other assets owned by an individual or organization

**subsidies (110) n.** – a sum of money granted by the government or a public body to assist an industry or business so that the price of a commodity or service remains low or competitive

**illustrative (113) adj.** – serving as an example or explanation

**ethereal (115) adj.** – extremely delicate and light in a way that seems too perfect for this world

**tandem (115) n.** – a group of two people or machines working together

**irreverent (115)** *adj.* – showing a lack of respect for people or things that are generally taken seriously

**apex (115)** *n.* – the top or highest part of something

**nondurables (115)** *n.* – something that is not able to withstand wear, pressure or damage

**desuetude (116)** *n.* – a state of disuse

**commodified (119)** *v.* – to turn into or treat as a commodity

**sartorial (124)** *adj.* – of or relating to tailoring, clothes or style of dress

**maelstrom (125)** *n.* – (figurative) a scene or state of confused and violent movement or upheaval

## Reading Questions

### Chapter 4—

1. What did most larger U.S. Cities adopt in the 1930s? **Some form of organized refuse collection and disposal.**
2. What is the cheapest method available for garbage disposal? **Land dumping or landfill.**
3. What is ‘resource recovery’? **Garbage disposal that generates electricity and steam power.**
4. What is “the Beccari method”? **A large-scale composting system.**
5. What was one of the touted benefits of the sanitary landfill? **Created new land or filled in previously unusable land.**
6. What were two problems of the early sanitary landfill? **Rat infestations and fire dangers because of toxic gasses.**

### Chapter 5—

7. What is “built-in obsolescence”? **Commodities that intentionally wear out faster so that consumers would be inclined to replace them more often.**
8. How did Fordism create cooperation among capital, labor, and the state? **Government regulated economy, capital paid higher wages, workers accepted consumerism as political power.**
9. Why were polymers so popular? **Business loved them because they meant “unfettered production flow.”**
10. What had been the greatest obstacle in industrial production? **The limits of nature.**
11. What appliance became common in American households, which helped new advertising techniques to spread? **Television.**

## Discussion Questions

1. Ocean dumping was ruled illegal because people thought the beaches were being fouled up. What does the author seem to think about these motives?
2. Even though “The Beccari method” turned raw organic garbage into fertilizer, thereby reusing the garbage, the method never really caught on. Why?
3. What does Rogers mean when she says, “The sanitary landfill not only remade wasting, it also remade modern landscapes” (89)?

4. How did technological advances in machinery make scavenging a politically unpopular idea?
5. How did Vincenz promote the idea that sanitary landfills were cleaner and safer for communities than scavenging?
6. How did the creation of organizations like The Salvation Army and Goodwill make wasting seem pious?
7. How has “built-in obsolescence” led to the consumption of more goods?
8. How did the efficiency of industry lead to the use of less reusables?
9. Why does Rogers claim that Fordist production externalized the costs of manufacturing onto nature?
10. What does Rogers mean when she says “workers for their part accepted consumerism in place of political power on the job and in society as a whole” (108)?
11. How was America’s consumerism used as an argument for capitalism over communism?
12. How does the fashion industry factor into the creation of excessive waste?
13. What is Rogers referring to when she claims, “the ever-expanding plastics market was not simply the result of consumer demand for convenience, as is often argued by the industry” (123).

### Research Questions

1. How did the New Deal help shape the garbage industry?
2. Research the garbage collection in your home areas. How have politics and political figures helped shape the way the garbage is used in your area?
3. Research Fredrick Taylor’s ideas on scientific management. How did they help shape the garbage industry?
4. Research how the U.S. Government encouraged the public to recycle materials during World War II. How did this propaganda paradoxically help the patriotic ideas of consumption that were becoming popular?
5. Research how World War II brought factory workers and owners together in a perceived common goal.
6. Research one of the companies listed on page 106 (Western Electric, DuPont, or General Electric). How did these companies benefit from both consumerism and the assembly line? How were these companies able to become so large and powerful? What are the goals of the political action committees (PACs) of these companies?
7. Rogers says, “Fordism was marked by relative peace and cooperation among capital, labor and the state” (108). Research the relationship between these three before Fordism. What were the conflicts between the groups? How were these conflicts resolved? How did Fordism change the relationship?

**MATERIALS: SECTION FOUR (CHAPTERS 6 & 7, pp. 129-181)**

**Teaching Suggestions**

1. Keep America Beautiful (KAB) officials claim that proponents of industry regulations on packaging were “communists” and that their position “defies and denies the free will of the people expressed by their free choice of containers” (150-151). Have students research the connections between the ideas of capitalism and communism and the tenets behind industry regulation. Have students take a side and debate the issues.
2. Watch the 1955 video “The Responsibility of the American Citizen” <http://www.archive.org/details/Responsi1955>. Ask students to take note of the way that the producers of this video, the National Education Program, characterize Americans. What do students think that the producers are trying to point out about Americans in this video? Do students think that this type of propaganda is effective? Students might be asked to script and/or produce a contemporary version.
3. Ask students to keep a journal of their own garbage for a week and reflect on the type and amount of garbage they throw out, individually or collectively (as a household or group). Then ask them to brainstorm a list of possible changes in their behavior that would impact the amount of waste produced.
4. Have students investigate different recycling plans. Assign students different companies in the United States or different countries’ primary stance on recycling to investigate. For example, Waste Management Inc., one of the corporations mentioned in Rogers’ book, has a website (<http://www.wm.com/wm/services/recycling.asp>) that can provide some information to students, though such research is best done with other sources in mind for comparison.
5. If you have considered teaching or have taught last year’s common book *The Latehomecomer* it may be worthwhile to connect these two topics with a discussion or report from students on Agent Orange. Used in the Vietnam War that is the setting of the beginning of *The Latehomecomer*, Agent Orange shares an ingredient with one of the most dangerous byproducts of incinerators: dioxins. Research and discuss the effects of dioxins and their application, both intentional and non-intentional.

**Vocabulary**

**Chapter 6—**

**mantra (130)** *n.* – a statement or slogan repeated

**insalubrious (131)** *adj.* – unhealthy, especially of a climate or locality

**counterculture (138)** *n.* - a way of life and set of attitudes opposed to or at variance with the prevailing social norm

**culled (138)** *v.* – to select from a large quantity or obtain from several sources

**subversive (138)** *adj.* – seeking to subvert an established system or institution

**stalwart (138)** *adj.* – loyal, reliable and hardworking

**indefatigable (141)** *adj.* – persisting tirelessly

**obfuscated (144)** *v.* – to render obscure, unclear or unintelligible

**opulently (146)** *adv.* – very rich and luxurious; wealthy

**lobbying (146)** *v.* – seeking to influence public officials or politicians on a particular issue

**mudslinging (149)** v. – the use of insults and accusations, especially unjust ones, with the aim of damaging the reputation of an opponent

**mendacity (149)** n. - untruthfulness

#### Chapter 7—

**Superfund sites (155)** n. – a location or facility that utilizes a fund designed to aid in long-term and/or expensive development of a given project; here referring to landfills

**shuttered (156)** v. – closed; shut down

**bloc (156)** n. – a grouping, usually of larger entities such as countries or companies, with a common purpose or goal

**grassroots (157)** adj. – the most basic level of an organization or group; here referring to the response from the general public to proposed incinerator sites

**refuse crematory (161)** n.p. – another way of saying *incinerator*; utilizes the term “refuse” meaning trash or garbage and “crematory” typically indicating a place where dead bodies are taken to be burned following a funeral ceremony

**greenwashing (173)** n. – information or misinformation used to indicate positive environmental practices regardless of actual practices (cf. whitewashing)

**polymer (175)** n. – a substance that is made up of mostly or all the same sort of molecular unit; referring here to plastics

**veneer (175)** n. – a covering meant to distract from the nature or quality of what lies beneath (cf. façade)

**infrangible (177)** adj. – not fragile; difficult to break or separate

#### Reading Questions

##### Chapter 6—

1. What decade marked the beginning of the U.S. Government’s involvement with environmental concerns? **1970s.**
2. What did the beverage industry say was the reason for the new “one-way” beverage containers? **Consumer demand for convenience.**
3. What did Abbie Hoffman’s book, *Steal This Book*, teach readers to do? **Find free commodities.**
4. What was the main focus of the Keep America Beautiful (KAB) program? **Littering.**
5. Who were the major supporters of KAB? **Industry.**
6. Why did the KAB want Americans to believe that individuals were responsible for pollution? **They didn’t want to restrict industry.**
7. How did the plastic industry fight back against regulatory methods? **Lobbying and legal work.**

##### Chapter 7—

8. Do all recyclable materials get recycled? Why or why not? **No, a percentage is sent to landfills or incinerators usually due to a lack of market for the reprocessed materials.**

9. What was the public's reaction to the building of incinerators according to Rogers? **Negative: not in my back yard/not in anyone's back yard.**
10. Name one of the reasons people reacted negatively to the building of incinerators. **The danger posed to communities by dioxins and heavy metals ejected from incinerators in the form of exhaust/smoke or ash. The increased traffic and pollution from vehicles, usually diesel powered, delivering trash to the site.**
11. What are some of the positives of recycling discussed in chapter 7? **For example, the energy savings from utilizing reprocessed materials, the positive feeling the population gets from doing something (anything) about waste, or the reduction of the volume of garbage sent to landfills.**
12. What are some of the negatives of recycling discussed in chapter 7? **For example, the number of items that are sent to landfills and incinerators despite being "recycled," the monetary cost of recycling and the lower monetary cost of landfilling items, or the misappropriation and misinformation surrounding the use of the "chasing arrows" symbol and the grade assigned to plastics.**

### Discussion Questions

1. How were the large beverage companies able to monopolize and push out the smaller companies?
2. Rogers claims that the Keep America Beautiful (KAB) program "distracted the public from other options that might inconvenience industry, like production restrictions or forcing can, bottle and beverage makers to reinstate the vastly less profitable refillable container" (143). Why might the supporters of this program have wanted to focus on anti-littering campaigns instead of slowing the flow of disposable products?
3. "The engineering of consent" is a "sophisticated shaping of public opinion" (144), says Rogers. Brainstorm examples that would support, refute, or complicate Rogers' claim, whether related to the specific topic of garbage or not.
4. American Can executive and KAB leader William May claims that container producers are "caught in the middle" between consumer pressure for convenience and a desire to use less packaging (quoted in Rogers 148). Discuss some specific examples of containers for products you consume. Have they changed for the sake of convenience, the environment, both, or neither?
5. Rogers claims that "industry spread the word that what was good for the environment was bad for labor, a message that persists to this day" (151-152). Is this notion still pervasive today? Are people conflicted between needing jobs and wanting to help the environment?
6. Labor researcher John Marshall claims, "The important thing to remember about landfills is that they're not just an unfortunate byproduct of capitalism; they actually represent the success of capitalism" (qtd. in Rogers 153). To what extent are landfills the symbolic byproduct of capitalist success? Are landfills necessary to economic prosperity?
7. To what extent do incinerators efficiently dispose of waste? What means of disposal are more (or less) efficient?
8. Growing up, did your family separate their recyclables? What about at school or other organizations? How about now? Discuss the differences you discover between generations or between cultures.
9. Patricia Taylor claims that recycling has "a frightening potential for institutionalizing waste generation" (qtd. in Rogers 172). How would this be so? Do recycling advocates acknowledge this as a possibility?

10. Rogers states, “the rhetoric of recycling targeted individual behavior as the key to the garbage problem, steering public debate away from regulations on production” (176). Examine this rhetoric as it is evident in sites like [www.dosomething.org/recycling](http://www.dosomething.org/recycling) or others.
11. Why is the argument that recycling is inadequate because it can’t compete on the open market “oft-repeated and bizarre” (Rogers 180)? Pick a side of the argument to argue from; keep in mind that one can sometimes learn more from effectively arguing from a stance one is against.

### Research Questions

1. Research the Keep America Beautiful (KAB) program to find out what their initial objectives were. Who did these objectives serve? Many of the commercials mentioned are archived on YouTube and will illuminate classroom discussion.
2. Research the lobbying systems of the major beverage companies. How do they get what they want out of congress?
3. Abbie Hoffman’s *Steal This Book* (and its antecedent *Fuck the System*) are available online at <http://tenant.net/Community/steal/steal.html> and <http://roma.indymedia.org/node/3986>, respectively. How would Hoffman’s exhortations impact the current economy and environment? Do groups still advocate for free food, shelter, and other resources?
4. Rogers says that the 1973 Packaging Review Act in Minnesota was held up by the Minnesota Supreme Court, “but gutted any means of implementation, leaving it to founder” (148). Research this act. What were its consequences, and why?
5. Research the trends in industry regulation. When has industry regulation been a popular idea? When has it been seen as an infringement on business? What are the results of these trends?
6. Labor researcher John Marshall wonders, “What other productive, scientific, creative pursuits could we have invested time in [instead of] products that were specifically designed to wear out faster than they needed to” (qtd. in Rogers 153). Have students research the average lifespan of a particular product, such as the toaster, to see if it typically lasts shorter or longer than it did thirty or forty years ago. What reasons does a company have to make something less resilient over the years instead of more efficient and resilient?
7. Rogers states that “in cities like Minneapolis, rates [for dumping trash] spiked sixfold from \$5 to \$30 per ton” (155). Why did this happen? Specifically what was the cause in Minneapolis? Did other cities in Minnesota and its surrounding states have similar problems? Why?
8. Who built the incinerators? Why? Was it/is it still effective? Do you know of an incinerator in your area? Consider respectfully requesting information regarding its history and operation.
9. Incinerators are still operated today. What is done with the ash they produce? How does this ash effect the environment? How long does it take dioxins in the ash and exhaust to break down or become neutralized once disposed of?
10. Why don’t more cities and counties utilize something more like CBNS’s four color-coded container trash sorting method (167)? Do other countries do this kind of sorting<sup>1</sup>?
11. How safe is it to wash and reuse a bottle of store-bought bottled water? Are certain bottles better? Is there a risk inherent in certain kinds of packaging?

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<sup>1</sup> Yes. For example Japan, particularly Tokyo, is a good example of such. New study abroad students at Tokyo University’s International House (an apartment-style dormitory) are instructed to sort their trash into three groups—burnable, recyclable, and non-recyclable—which is then deposited in the correct receptacles in a lower level loading area for the collection of trash.

**MATERIALS: SECTION FIVE (CHAPTERS 8 & 9, pp. 183-231)**

**Teaching Suggestions**

1. Rogers claims “Exporting wastes is the result of cheap labor abroad and stricter environmental controls at home. If it’s prohibited or too costly to discard in the United States, companies can just send refuse overseas, and at a competitive price” (186). This same idea holds true for imported products as well. Ask students to examine the ethics of this situation. Should Americans worry about America first and the global world second? If American law prohibits the disposal of waste in the U.S., why is it acceptable to send this waste to another country? Ask students to debate the issue.
2. Encourage students to learn about the larger changes both in business and waste management in the late ‘80s and early ‘90s. Further exploration of this topic in light of local businesses could also prove worthwhile. For example, last year one of the two Midtown grocery stores in town closed its doors, many speculate because of competition from Hy-Vee and Wal-Mart. Something similar may happen with the new arrival of a GameStop across from Wal-Mart here in town this year. Two other stores, Jimmy Jams and Warpzone, currently cover the market for used video games.<sup>2</sup>
3. If you are familiar with the TV show *The Sopranos*, selections from it may prove informative to students in regards to the nature of the business to which the corporations were attempting to break in. It may also be worthwhile to examine the show as a revenge of sorts as Rogers states on 191.
4. Many people are mentioned in the final chapter of Rogers’ book. Have students keep track of all the different people. Consider splitting students up into groups that will focus on a specific person or set of persons, collecting additional information and presenting it to the class.
5. Have students select a company that has recently promoted a green image. Have students chart and review the actions of that company.
6. After they have completed reading *Gone Tomorrow*, have students watch Rogers’ documentary, available at <http://video.google.com/videoplay?docid=5934530156227758850#>.

**Vocabulary**

**Chapter 8—**

**mafia (183)** *n.* – a group of organized criminals

**stock (186)** *n.* – money raised by offering part-ownership in a company and the extension of the benefits and risks inherent in such ownership

**wane (188)** *v.* – to weaken or become lesser over time

**Gotham (189)** *n.* – a nickname for New York City

**cartel (190)** *n.* – a business grouping that is arranged to keep prices artificially higher than they would in a free market as well as limiting the effectiveness of competitors

**trust (194)** *n.* – a large company with monopolistic aims

**infrastructure (197)** *n.* – the underlying and necessary facilities and services required by businesses, political states, or other similar organizations

**barge (200)** *n.* – a flat-bottomed boat used primarily for commerce

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<sup>2</sup> Though both also cater to niches within the market not addressed by GameStop, or really any other store in town—Jimmy Jams with trading cards, comics, and manga and Warpzone with vintage, classic, and import games.

**e-waste (200)** n. – unwanted or discarded electronic materials such as computers, televisions, or multimedia devices

**Global South (202)** n. – a somewhat outdated term referring to a number of country-states located mostly to the south of more industrialized nations (such as the US, UK, or Russia); refers to a group of nations previously referred to as “3<sup>rd</sup> world countries” now more commonly called lesser developed countries, or LDCs

#### Chapter 9—

**bungalow (207)** n. – a low house typically of one level or with additional levels incorporated in the roof

**refuseniks (209)** n. – a person who refuses to follow a selected aim, order, or procedure

**bioplastics (213)** n. – a plastic alternative made from renewable biomass sources such as plant starches

**eco-friendly (214)** n. – not harmful to the environment; a combination of the words ecologically and friendly

**cataclysm (218)** n. – a large-scale, violent event

**refillables (221)** n. – packaging materials that are designed for multiple reuses

**biodegradable (225)** n. – able to be broken down by natural processes over time

**incomprehensible (226)** n. – not able to be conceived of or understood

#### Reading Questions

##### Chapter 8—

1. Who was ultimately in charge of New York City’s garbage hauling since the mid-1950s? **The mafia (183).**
2. Recent revenue for the nation’s two largest solid waste management companies, BFI and WMI, can be measured in what quantity of dollars (hundreds, thousands, millions, billions, trillions, etc.)? **Billions (187, 188).**
3. According to Rogers, what is one of the primary differences between Jewish-American and Italian-American mobsters, the two groups that were major players in the formation of New York City’s garbage cartel? **Jewish mobsters do not allow their children to take over the “family business.” This was a key factor in the transfer of mafia power from the Jewish mob to the Italian mob (189).**
4. What kind of transport was the *Khian Sea*? **A barge, boat, ship, or seafaring vessel (200).**
5. Name one of the countries Rogers indicates as the eventual home for a substantial amount of US waste? **India, China, South Africa, or the Philippines (203).**

##### Chapter 9—

6. Describe the main goal of the group that lives in the Batcave. **Reducing waste. The group throws out only a single small bag of garbage per week; the rest is recycled (208).**
7. What issue makes it difficult for companies to go green and still compete well in the market? **Costs. The extra costs that going green tends to entail can often make a company less marketable and, therefore, less profitable (214).**
8. In what country did the green dot system originate? **Germany (218).**
9. What movement aims to shut down landfills and incinerators permanently? **The zero waste movement (226).**

10. Name one of the ecological crises to which Rogers draws readers' attention to in the final lines of her book. **Dying oceans, ozone depletion, global warming, or the proliferation of toxic chemicals throughout our food, water, and air (231).**

### Discussion Questions

1. Rogers cites a "major restructuring in the garbage industry" (184) as one of the primary factors that led to the downfall of the mafia's garbage hauling monopoly in New York City. This kind of restructuring is relatively common in the business world. In what other businesses is this kind of restructuring occurring? How might this kind of restructuring affect that business? How does the restructuring compare with the waste industry?
2. Have you lived in a location to which waste was imported or from which it was exported? If so, what were some of the relevant environmental or economic impacts?
3. The previous chapter introduced us to some of the locations chosen for incinerators and the problems that has caused. Rogers has mentioned the locations of several other trash-related facilities in earlier chapters as well. Rogers refers to a 1984 industry study stating that "low-income rural areas with populations of less than 25,000 that were older and had high school or less education" (198) are seen as the ideal sites for waste treatment facilities. Is there an ideal place for waste management? If not, what are some possible solutions?
4. Rogers briefly mentions the Basel Convention, "an international accord that regulates the trafficking of hazardous waste from industrialized to developing countries" (203). Do you agree with the statement made by Larry Summers that "the economic logic behind dumping a load of toxic waste in the lowest wage country is impeccable, and we should face up to it" (qtd. in Rogers 201)?
5. "Garbage is one of the great cultural exports of the United States" (Rogers 204). What does this mean for American culture? What does this mean for Americans? How does garbage compare to other cultural exports? What kind of image does garbage as a cultural export project?
6. Consider Rogers' description of the Batcave (207-208). Would you consider living in a similar manner? Doing so for parts of a year? Just to try it once? Why do you feel this way? Are there elements in the process described that you find interesting? How can you relate such to your own current living?
7. The green capitalism movement aims to continue the consumerist model that America has grown to embrace so closely. How feasible is the plan?
8. Rogers makes the argument that green capitalism cannot bring about the changes it intends alone; a government presence is necessary. She indicates several programs that have brought about changes, generally, for the better: social security, welfare, and food and drug inspection (216). Is there a similar method that might be applied to creating a greener nation? What would you suggest or support?
9. What is your impression of the zero waste movement (224)? Can you envision a future like what Rogers lays out here? Why or why not? Are there negatives to this approach in the short term? In the long term? Positives?
10. Rogers demonstrates that "the biggest beneficiaries of a trash-rich marketplace are those at the top [in a business hierarchy]" (230). Can you refute the elements Rogers has used to support her claim? If so, what would you change about Rogers' claim?

## WRITING PROJECTS

The following writing project suggestions are designed to help students further engage in the issues raised in the book. These suggestions could be used as formal or informal writing assignments, in-class writing, or even collaborative writing projects.

The writing projects cover a wide range of topics discussed in the book. They are divided into three categories: non-research/reflective writing projects, community-based research, and library-based research. The non-research/reflective writing projects mostly focus on student's behavior and thoughts. Students are asked to draw on their own personal experience for these writing projects. Community-based research writing projects encourage students to become involved in their own community. Many of the community-based research writing projects are collaborative projects that could include an entire classroom. These projects aim to engage the student in the discourse of community in a positive way. The library-based research writing projects involve traditional skills of library research. These projects require formal citation and documentation.

Any of the writing projects can be altered to suit the needs of the classroom.

### Non-research/reflective

1. As you read the book, generate a list of the scientific terms. Define these terms and keep them at hand for easy reference when you read the text. (There is a partial list in the back of this study guide.) Select a few that you find most relevant to the analysis of garbage and explain their relevance.
2. Keep a journal of your reactions as you read this book. Highlighting the main ideas of each chapter will help you organize your thoughts. Try to see the patterns of the garbage industry that emerge.
3. Considering that it is shown a few times in the book that waste facilities are more likely to be placed in low-income, immigrant and/or African American communities, reflect on the effects that these facilities cause for people in these communities. How does your own race and/or class inform your opinion about the placement of these facilities?
4. Examine the exportation of waste to underdeveloped countries that have low or no regulations.
5. Reflect on your own behavior as a consumer. How often do you buy the more convenient, but less ecologically friendly product? Are there any behaviors you can change to lessen your own impact on the environment? Would you consider trying to change? Why or why not?
6. Does *Gone Tomorrow* empower readers to make changes or take action? Or does the book seem to say that we as individuals cannot change the way things are?
7. How have the consumer behaviors of your parents affected or shaped your own behaviors as a consumer?
8. Rogers claims that "the public has no say in manufacturing" (229). Can you challenge this claim? What would it take for the public to have a say? Does the public have any power in the choice of products or the boycotting of products?
9. According to Rogers, advertisers are able to claim that an item is recyclable even if it isn't. Should advertisers be required to be truthful in their advertising or must the "buyer beware?"
10. Think back to artifacts of culture you have recently viewed. Artifacts may include such items as movies, TV shows, books, video games, music, or other similar, culturally relevant items. How is garbage or waste depicted in these artifacts? If they represent different cultures, how do these cultures differ in their depictions? How do the depictions differ from Rogers' depiction or your own experience?

### Community-based research

1. Last year the local affiliate of Greenpeace presented free screenings of *The Age of Stupid*, a movie about the effects of pollution on global warming. Attend a movie screening, lecture, or other public exhibition that highlights some issue related to garbage. The Frozen River Film Festival Club often screens movies that tend to be socially aware in this manner and their members may be able to help locate screenings or videos available at no additional charge from the Winona State Library or the Winona Public Library.
2. Investigate the recycling program at Winona State University. Find out how much recyclable materials are collected in an average semester or year. Try to ascertain what happens to the aluminum, paper, and plastic that the university collects. Who collects it? Most importantly, what ultimately becomes of the recyclable materials? Put your findings in a report to present to the Student Senate, President, etc. (Alternatively, research and report on a program at another institution.)
3. Investigate local recycling or composting programs and try to persuade others to take part in (or improve) these programs.
4. Visit grocery and retail stores in the area and find out what they are doing to try to reduce the use of reusable bags. Is there anything you could do to help them raise awareness and encourage their customers to use reusable bags? Consider creating a visual presentation showing the effects of the bags and ask local stores to display the visual presentation.
5. Write a blog discussing the changes that you are making in your local community to help reduce the amount of waste you produce. You could give tips to other students about how they could make small changes in their lives that could equal big changes collectively. Or create a wiki showing different ways that products can be reused. This could be done individually, as a whole class, or campus-wide. Promote the wiki throughout the campus.<sup>3</sup>
6. Vicki English, Community Liaison of the Student Life and Development Office at WSU, oversees a local Adopt-a-Block program that aims to clean up refuse left by careless individuals, troublesome animals, etc. around Winona. Look into the effects and reception of this program.
7. Wm. Miller Scrap Iron & Metal Co. of Winona is responsible for a fair quantity of the scrap metal recycling in the Winona area. Research the company and look into its activities in the area that aid in increasing reusability and appropriately disposing of appliances and several forms of e-waste. If a company spokesperson is available, consider interviewing him or her for an inside look at the company.
8. In nearby Rochester, MN is one of the largest incinerators in the area, the Olmsted County Waste-to-Energy Plant. The plant has recently been undergoing a major upgrade to double its capacity. What kind of reaction has the incinerator garnered from the general populace of the area? The lawmakers and elected officials? If tours are available, narrate and describe the experience.
9. As mentioned in Section Five above, Winona has its very own refillable bottle program through the local Coca-Cola Bottling Company. Several retailers in the area, including Hy-Vee, sell some Coke products in refillable glass bottles. Look into some of the local effects this program has and apply what you have learned from Rogers' book (221-224) as well as through additional research to the effect this could have if done on a larger scale. What is the general reaction to the program throughout the area? Is it profitable? Should profitability even matter? Why or why not?

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<sup>3</sup> If you or your students are unfamiliar with constructing and utilizing a wiki or blog, contact WSU Teaching, Learning, and Technology services (<http://www.winona.edu/it/tlt.asp>) as early as possible to arrange for recommendations and/or solutions.

10. Examine the packaging of any consumer product you have purchased, and investigate its promotion, marketing, and environmental impact. How has the product packaging changed over time, and to what degree or effect?

### Library-Based Research

1. Chronicle the fictional journey a piece of refuse would make as it travels along the waste system of Winona or another community. Be sure to use as many facts, real terms, and real situations as possible from Rogers' book and outside sources. Use descriptive language that activates all of the senses.
2. Write a letter, to a politician of your choice, asking for improvements in a waste-related issue (e.g. recycling, alternative energy). Support your claims with researched evidence.
3. A recent article cites the example of Amy Korst, who limited her yearly trash output to the volume of a four-pound shoebox (Wendy Koch, "A Reason Not to Take out the Trash," *USA Today* J22 July 2020: 3A. [http://www.usatoday.com/printedition/news/20100722/trash22\\_st.art.htm](http://www.usatoday.com/printedition/news/20100722/trash22_st.art.htm)). Research and analyze other published examples, assessing their impact and success.
4. In *War on Waste*, Blumberg and Gottlieb claim "technology was presumed capable of solving any number of social problems" (qtd. in Rogers 96). Research one technological advance that seemed to solve social problems easily and efficiently. Has this advance solved the problem or created new problems?
5. Research the ideas behind *laissez-faire* economics in capitalist societies. How has the popularity or problems of this idea changed in America's history? What effects has *laissez-faire* economics had on the economy, the environment, and the people?
6. Research Karl Marx's writings on the problems he saw with industrialized manufacturing.
7. Research the rise of the plastics industry. How was this product able to outcompete other possible resources? What role did government play in the success of plastics?
8. Rogers says, "A 1987 report by the United Church of Christ's Commission for Racial Justice, titled 'Toxic Wastes and Race in the United States,' documented that a geographical area's racial composition was the single most reliable factor in predicting the location of waste disposal sites. This report confirmed a larger pattern of discrimination" (166). Read the 2007 follow-up report to see if there have been any changes in this pattern of discrimination. Have those changes come as a result of the initial report? Discuss some of the reasons that race or income would factor into the people's ability to fight the development. The report is available at: <http://www.ejrc.cau.edu/TWARTFinal.htm>
9. Rogers claims "manufacturers of all kinds began to comprehend the valuable PR and marketing opportunities that could spring from recycling and green branding" (173). Research the advertising history and labeling of one specific product and discuss if and how the product is presented as being environmentally friendly. Test the claims of the product.
10. In her discussion of the plastics codes, Rogers states, "plastic packaging bearing the triangular symbol misleadingly telegraphed to the voting consumer that these containers were recyclable and perhaps had even been manufactured with reprocessed materials themselves. But often neither was the case" (174). Research the current plastic codes. Create a visual presentation of your findings to show how much plastic and which kinds are really recyclable. Write a persuasive essay based on your findings.
11. Rogers says that there are "no restrictions on the use of the recycling symbol" (215). Does this mean that any product can be labeled as recyclable even if it is not manufactured with recycled materials? Should government put restrictions on what advertisers can claim to the American public? How else can these claims be checked? Is the U.S. essentially allowing industry to lie to the public? If so, what can be done about it? Write a persuasive essay showing the results of your findings.

12. Freegans are people who use items that are taken from the trash, including food. Often times, these people are rather well off and do not have to engage in this practice, but do so in order to lessen the amount of waste they produce. Research and analyze the challenges and effects of a freegan lifestyle.
13. What has been the reaction of readers to *Gone Tomorrow*? Has the book changed peoples' opinions or behaviors? How have readers responded? Compose an essay that sorts and cites these responses.
14. Ask students to refute or revise Rogers' primary thesis, using counterexamples and additional research.
15. The Winona County Historical Society (160 Johnson Street, <http://www.winonahistory.org>) provides archives and search engines for researching historical topics. Use these to examine a specific garbage-related episode in the past.
16. Research the effectiveness of any specific effort by any institution (such as a university), corporation, or community to minimize its environmental impact.
17. Evaluate the rhetoric employed by any institution or advocacy group on the topic of garbage or environmentalism. For example, you might critique the publications of [www.dosomething.org](http://www.dosomething.org) or the public relations efforts of major corporations like Coca-Cola, Ikea, or Wal-Mart in their efforts to "go green."
18. Investigate the topic of green capitalism, which Heather Rogers addresses in her second book, *Green Gone Wrong*. What are some prominent examples and effects of green capitalism?

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### Filmography

**The 11<sup>th</sup> Hour.** Dir. Leila Conners Petersen and Nadia Conners, Warner Independent Pictures, 2007. DVD.

[www.11thhourproject.org](http://www.11thhourproject.org). *The 11<sup>th</sup> Hour* is produced and narrated by Leonardo DiCaprio and looks at the following issues: Global Warning, pollution, politics, economics, nature/eco-system, climate change, waste, consumerism, and sustainability. This film interviews scientists, journalists, and other experts about the climate crisis and possible solutions. There are some interwoven video clips from natural disasters, like Hurricane Katrina, but this film, unlike *The Age of Stupid*, the main thrust is interviews from experts.

**The Age of Stupid.** Dir. Franny Armstrong. Snag Films, 2009. DVD. [www.ageofstupid.net](http://www.ageofstupid.net). A cross between documentary, drama, and animation, *The Age of Stupid* addresses such topics as climate change, pollution, economics, waste, and politics. Actor Pete Postlethwaite plays the part of an old man in the year 2055 looking back on the events, in the form of video clips, from 2008. The movie follows the lives of six individuals to illustrate how climate change and its causes influence their lives. His character asks the metaphysical question: why did humans not act to save themselves from global warming when they had the chance?

**Bag It.** Dir. Suzan Beraza. Reel Thing Films, 2010. Film. [www.bagitmovie.com/](http://www.bagitmovie.com/). This documentary follows Jeb Berrier, an average American, as he makes a resolution to stop using plastic bags. As he begins to research plastic use and waste all over the world, he discovers alarming statistics and contemplates our society's throw away mentality.

**Garbage Dreams: Raised in the Trash Trade.** Dir. Mai Iskander. Iskander Films, 2009. DVD.

[www.garbage dreams.com/](http://www.garbage dreams.com/). *Garbage Dreams* follows the lives of three teenage boys born into the trash trade on the outskirts of Cairo, which is the home of the 60,000 Zaballeens who run the trash trade for the entire area. The Zaballeens, who remarkably recycle 80% of the garbage that they collect, face new challenges with the globalization of the garbage industry.

**Garbage! The Revolution Starts at Home.** Dir. Andrew Nisker. ANP, 2007. DVD. [www.garbage revolution.com](http://www.garbage revolution.com).

The documentary records a family who volunteers to keep their garbage in their garage for three months. The film captures the volume of garbage that one family creates without consciously realizing the totality. The director was hoping that people who see the film begin to think critically about their own habits of garbage and how their habits impact the environment. Other impacts from energy use are also examined.

**Garbage Warrior.** Dir. Oliver Hodge. Open Eye Media, 2007. DVD. [www.garbagewarrior.com](http://www.garbagewarrior.com). Michael Reynolds is an architect who builds experimental houses called "Earthships." His goal is to produce homes that are completely sustainable for power, water, and sewage; he builds homes that are off the power grid. This film follows Reynolds from the United States to the tsunami disaster region, as he tries to spread the word about his vision of sustainable housing.

**Gone Tomorrow: The Hidden Life of Garbage.** Dir. Heather Rogers. 2005.

[video.google.com/videoplay?docid=5934530156227758850#](http://video.google.com/videoplay?docid=5934530156227758850#). Rogers' documentary investigates some of the issues later addressed in her book of the same name: recycling, consumerism, built-in obsolescence, corporate greenwashing. Rogers investigates these themes with photographs and videos. In addition, she interviews a recycling worker, a professor, a researcher, an activist, and salvage worker. Rogers also looks at the methods employed by corporations to thwart changes in public policy aimed at helping the environment.

**No Impact Man.** Dirs. Laura Gabbert and Justin Schein. Oscilloscope Laboratories, 2009.

[www.noimpactproject.org](http://www.noimpactproject.org). A Sundance-selected documentary by independent film producers Laura Gabbert and Eden Wurmfeld, *No Impact Man* tells the story of Colin Beavan, who in November 2006, launched his year-long "No Impact Man" experiment in which he, his wife, his two-year-old daughter and their dog attempted to live in the middle of New York City with as little environmental impact as

possible. They tried to adopt new everyday habits that would be less harmful to the planet, and discovered in the process that such changes also make them happier and healthier. Beavan's experiment in lifestyle redesign is also the subject of his *No Impact Man* book and project.

**The Wasteland.** Dir. Lucy Walker. Almega Projects, 2010. Film. [www.wastelandmovie.com/](http://www.wastelandmovie.com/). Documentary filmmaker Lucy Walker follows artist Vik Muniz as he travels to his native Brazil and the largest garbage dump, Jardim Gramacho, located outside of Rio de Janeiro. The artist photographs the catadores, who are pickers of recyclable materials, and gains access to the lives of this unique group of scavengers.

## GLOSSARY OF SCIENTIFIC TERMS

- anaerobic (85)** *adj.* – (of an organism or tissue) living in the absence of oxygen
- atomized (125)** *v.* – convert into very fine particles or droplets
- bentonite (18)** *n.* — a clay that is formed by the breakdown of volcanic ash; such clay has the ability to absorb large amounts of water and expand many times its normal volume
- CFCs (169)** *n.* — chlorofluorocarbons; a group of substances that deplete the ozone layer
- chloracne (162)** *n.* – a disease of the skin resembling severe acne directly correlated with exposure to dioxins
- citizens association (46)** *n.* — a group of wealthy volunteers who formed in reaction to the draft riots and political corruption; one of the group's aims was to improve sanitation and public health
- conservationist (56)** *n.* — a person who works to preserve nature, animals, and the environment
- creosote (92)** *n.* - a dark brown oil distilled from coal tar
- dioxins (5)** *n.* — polychlorinated dibenzodioxins; highly toxic byproducts of incineration and some manufacturing processes
- double helix (32)** *n.* — the complementary nature or structure of strands of DNA
- EPA (4)** *n.* — Environmental Protection Agency; an agency of the United States government to coordinate federal programs aimed at combating pollution and protecting the environment
- epidemiology (47)** *n.* — the branch of science that investigates the spread and prevalence of disease in large populations; examines the causes of diseases
- ferrous (14)** *adj.* — substance that contains iron
- GROWS (16)** *n.* — geological reclamation operations and waste systems; massive landfill operated by Waste Management, Inc.
- guano (35)** *n.* — a natural fertilizer made from bird excrement, or an artificial fertilizer made from fish parts
- gypsum (35)** *n.* — a soft mineral, hydrated calcium, that is sometimes found in plaster of Paris; also used as a fertilizer
- HAP (5)** *n.* — hazardous air pollutants; can cause or may cause cancer or other serious health, environmental, or ecological effects
- HDPE (19)** *n.* — high-density polyethylene; a synthetic resin commonly used to make milk jugs, has a high melting point and density of 0.96 or more
- heavy metal (201)** *n.* — a toxic group of elements including mercury and cadmium that pose health risks to humans and the environment
- humus (85)** *n.* – an organic compound of soil, formed by the decomposition of leaves and other plant material by soil microorganisms
- leachate (1)** *n.* — a liquid that in passing through or by other materials absorbs small parts or elements of that which it comes in contact with
- methane (1)** *n.* — a colorless, odorless flammable gas that is the main component of natural gas
- MRF (14)** *n.* — materials recovery facility; place in the garbage system where materials are sorted and collected for recycling.
- nematode (84)** *n.* - a category of worms that are found mainly in soil and water and are typically parasites
- nondurables (115)** *n.* – something that is not able to withstand wear, pressure or damage

**parasitic (84)** *adj.* – living as a parasite; habitually relying on others

**PCBs (201)** *n.* — polychlorinated biphenyls; a toxic byproduct of some manufacturing processes

**PET (177)** *n.* — polyethylene terephthalate; a synthetic resin commonly used to make soda pop bottles

**petrochemicals (141)** *n.* – a chemical obtained from petroleum and natural gas

**polyethylene (122)** *n.* – a tough, light, flexible synthetic resin made by polymerizing ethylene, chiefly used for plastic bags, food containers and other packaging

**polyethylene terephthalate (PET)(141)** *n.* – a type of clear plastic used to make some household cleaning product bottles, soft drink bottles and other kinds of food containers

**polymer (175)** *n.* – a substance that is made up of mostly or all the same sort of molecular unit; referring here to plastics

**polymers (118)** *n.* – a substance that has a molecular structure consisting chiefly or entirely of a large number of similar units bonded together e.g. many synthetic organic materials used as plastics and resins

**resin (118)** *n.* – a sticky flammable organic substance, insoluble in water exuded by some trees and plants; (173) synthetic resin, a base component in a number of manufactured goods; referring here to plastics

**smog (5)** *n.* — fog mixed with smoke and other atmospheric pollutants

**superphosphates (35)** *n.* — a fertilizer made by treating prepared phosphate rock with sulfuric acid

**synthetics (118)** *n.* – a synthetic material or chemical

**technocrat (94)** *n.* – an exponent or advocate of technology

**trichinosis (84)** *n.* - a disease typically from infected meat characterized by digestive disturbance, fever and muscle rigidity

**unadulterated (124)** *adj.* – not mixed or diluted with any different or extra elements; complete and absolute

**vesicular exanthema (84)** *n.* – an infectious viral disease of swine characterized by blisters on the snout, mucous membranes and feet

**VOC (5)** *n.* — volatile organic compounds; emitted from certain solids or liquids, may have short-term or long-term adverse health effects, commonly found in paints and pharmaceutical products