Introduction

Archaeologists have always been interested in trash. In fact, the discipline of archaeology depends upon trash to understand the past. It is hardly surprising that the study of contemporary trash emerged in parallel with a sustained attention on formation processes in archaeology to produce new ways to understand practices of consumption and discard in archaeology. William Rathje’s pioneering work with the “Garbage Project” in Arizona starting in the 1970s established him as the father of “garbology.” His work paralleled that of Michael Schiffer, who developed practices and methods in ethnoarchaeology, to inform behavioral archaeology, formation processes, and modern material studies, and both taught at the University of Arizona in the 1970s and 1980s, wrote an textbook together (Rathje and Schiffer 1982), and, as we have seen, worked early on to establish an “archaeology of us.” In an interview near the end of his life, Rathje himself has noted, the rise of garbology, ethnoarchaeology, and historical archaeology was hardly a coincidence. The study of contemporary and past garbage provided archaeologists with an opportunity not only to understand discard practices in general, but to recognize how shifts in access to goods, the rise of industrial manufacturing, the changing character of consumer culture, and differing attitudes toward recycling, reuse, and disposal produced distinctive assemblages.

Many of Rathje’s most compelling observations concern the tension between responses on surveys and the analysis of trash from particular neighborhoods. For example, Anglo and Hispanic households represent on surveys their consumption of alcohol in very different ways with Anglos tending to underrepresent the quantity of alcohol that they consume and Hispanics either reported no alcohol or recorded it very accurately (Rathje 2012, 366 [find a better citation]). Such research reveals how our relationship with garbage and by extension consumer culture and the life cycle of things often involves practices that obscure discard practices. As a result, the processes that see objects transition from being useful to being useless remains as obscure as many of the processes that create contemporary dumps. It is important to note that many of these more complex formation processes that produce assemblages at local landfills are not just materially invisible, but socially invisible too. The growing attention to contemporary discard practices reveals individuals and communities who work both within and around the modern system of solid waste removal in the U.S. There has also been the recognition that discard and recycling practices have become a global
phenomenon and archaeological inquiry holds forth the potential to reveal the hidden costs of consumer culture as well as the hidden fate of its victims. In this context, work to draw greater attention to repurposing of trash as art stands as social commentary. It is fitting, of course, that the American West offered a context for Rathje’s garbology project, the Atari excavation, as well as so many of the post-war, Cold War, and apocalyptic fantasies and tragedies of the American experience.

The History of Trash and Archaeology

In the field of archaeology, the study of contemporary or nearly contemporary trash is as old as the discipline itself. Dietmar Schmidt, for example, argues that preeminent German anthropologist Rudolf Virchow’s accidental discovery of rubbish pits in Berlin represented a crucial moment in the understanding of archaeology as both a practice and metaphor for modern social science (Schmidt 2001). In the late 1860s, Virchow thought he had discovered the remains of an Iron Age pile dwelling in the middle of the modern city, but soon realized that the deposit of bones, shells, and kitchen pots was discarded rubbish from the previous century. Despite his disappointment, he documented the deposits carefully and presented a number of papers arguing that this deposit of 18th century kitchen waste revealed a good bit about the culinary habits of the German aristocracy and their predilection for oysters and mussels in particular. When Virchow goes on later in the century to visit Heinrich Schleimann’s dig at Troy, he comments on the discarded refuse. Moreover, Virchow’s work led to periodic investigations of modern sewers and other nearly contemporary refuse deposits elsewhere in Europe. Schmidt suggests that Virchow’s and others’ interest in the mundane trash rather than simply the glorious inspired Freud’s use of the archaeological metaphor to characterize his exploration of the human consciousness. Both trash and Freud’s construction of the unconscious represent objects that are hidden but also poised to reveal their formative and foundational influence on contemporary life.

A similar early examination of a nearly contemporary garbage dump comes from Alfred Kidder early exploration of the dump in Andover, Massachusetts. In 1921, Kidder, who is better known for his systematic excavations at Pecos, New Mexico, found himself in Andover caring for his aging mother. Over the summer, he made regular visits to the dump initially attracting the attention of the local police who thought he was either a vagrant or an escaped resident of a psychiatric hospital. While we have little direct records of his observations in the Andover dump, the various bits of information that Raymond Thompson gleaned for archival sources demonstrated Kidder’s fascination with both the depositional processes that created the landfill as well as the sequence of lamps that mapped the shift from whale oil to lightbulbs (Thompson xxx-xxx, Rathje 1992, 93-94). Over the course of regular observations, Kidder recognized that the process of dumping material on the landfill mound
influenced the distribution of artifacts with objects like baby buggies and garbage can lids rolling to the bottom of the slope. He also collected an assemblage of lamps during his observations at the dump and was able to developed a typology that anticipated the well-known Mayers-Oaks (1955) illustration of lamp seriation. Kidder’s initial inability to recognize a number of flattened metal bands which his mother identified as metal corset bones, and made clear, as Thompson observed, that his study of the garbage dump offered insights into women’s underwear to which Kidder would not have otherwise had access. In fine Freudian fashion, Kidder’s time caring for his mother opened a marginal and hidden world to him in the Andover dump. Kidder’s himself endured marginalization when he was misrecognized as a vagrant or as someone escaped from an institution explicitly linking the dump to individuals and circumstances meant to be invisible.

Kidder’s exploration of the contemporary Andover dump occurred amid important changes in attitudes toward household waste. As Gavin Lucas and others have shown in the late-19th and early-20th century awareness of the potentially harmful character of household waste particularly in the kitchen led to the rise in both disposable goods and manuals which advocated for their use in the name of sanitation and cleanliness (Lucas 2007; Melosi 1981). This attitude toward waste also contributed to the introduction of the first municipal landfills in the first decades of the 20th century across the U.S. where trash could be sequestered from living spaces (Rathje 1992, 85-86). The term sanitary landfills first appeared in the 1930s and during World War 2, landfills became the primary way in which waste sequestered and disposed of in U.S. military bases (Rathje 1992, 87). The use of landfills for disposal in the interwar years was contemporary with changes in consumption practices. Roller has tied the changes in the assemblages of household dumps to the government efforts in the United States to encourage consumerism as part of a larger program of social, political, and economic engineering during the interwar year (Roller 2019). While Kidder’s observations of the Andover dump produced a series of useful, if anecdotal connections concerning deposition and particular habits of New England society in the recent past, the post-war interest in garbage that formed the framework for garbology regarded the disposal of waste as inseparable from the social process associated with discard and consumption.

In many cases, works on garbage eschewed archaeological analysis in the name of social critique, policy analysis, and cultural theory and this work, contemporary with Rathje’s Garbage Project, offers a broader context for how the study of contemporary trash presented a compelling and significant Vance Packard’s influential work in the 1950s emphasized the close tie between consumption, the economics of production, and waste introducing his 1960 book, Waste Makers, with a series of fancifully wasteful anecdotes about “Cornucopia City.” Heather Rogers’ (2006) called the 1950s, the “Golden Age of Waste” at the intersection of consumer culture and changing domestic attitudes toward sanitation. Packard urged readers to return to earlier modes of thrift. Martin Melosi saw changing attitudes and practices involving solid waste disposal as
linked to the challenges of urbanism and industrialization. White flight, suburbanization, and the changing character of American cities provided the context for the late-20th century “garbage crisis.” Not only did suburban sprawl require trash collection necessary over a greater geographic area, but changes in the tax base and federal funding also complicated the financial situation of core cities which made trash collection often pressing matter of policy (Melosi 1981). It is worth noting that similar concern for garbage and solid waste management was emerging globally as well. In his book length treatment of the Garbage Crisis written with Cullen Murphy, Rathje explicitly rejected the notion of a “garbage crisis” by making the first of his “Ten Commandments” of trash: “don’t think of our garbage problems in terms of crisis” (Rathje 1992, 238). Tim Jelf’s recent survey of the impact of trash in the development of an “archaeological consciousness” in American culture which by the 1980s had materialized as a concern for trash as an expression of a larger anxiety concerning the ephemerality of consumer culture (Jelf 2016). In 1986, the Khian Sea cargo ship filled with 14,000 tons of incinerated ash from a Philadelphia found itself barred entry to a range of Caribbean, African, and European ports before dumping its cargo illegally in the Pacific and Indian oceans. A year later, the the Mobro 4000 garbage barge wandered up and down the East Coast and the Caribbean further pushing the garbage issue, whether a genuine crisis or not, to the forefront of headlines and nightly news. It seems inescapable that the growing public concerns for the quantity and character of trash in the post-war decades provided a cultural context for Rathje’s work.

Michael Tompson’s Rubbish Theory (Thompson 1979) highlighted the theoretical concern from the movement of objects from household use and value to rubbish which allow for them to return to positions of value in society. Thompson argued that objects circulate through various economic, social, and cultural contexts which assign or rob the object of value, but, in order for changes in value to happen, objects must at some point, drop out of these contexts, by losing all value and becoming rubbish. Thus for antiques and kitsch to become valuable, the had to shed their functional value as household objects before returning to circulation as objects of nostalgia or historical significance.

Finally, 1980 saw the publication of A.J. Weberman’s My Life in Garbology (1980) which described his adventures in the trashcans of public figures which revealed hidden evidence for their private lives . This book popularized the term “garbology,” which Rathje initially rejected in his own work because of the invasive and sensational character of Weberman’s approach, but over time came to embrace the concept eventually making it his own (e.g. Rathje 2001, 63; 2011, 177). Weberman’s use of garbage presented to a popular audience, as Joshua Reno has noted, the idea that the discarded can reveal more about an individual than the things which the individual presents outwardly to society (Reno 2014). It paralleled the use of garbology as part of surveillance schemes enacted by the FBI in the 1950s. Like Thompson, Weberman’s work emphasized that garbage gained importance because it had lost all value when it
was cast to the curb. Returning the hidden garbage to the public eye created new value in these objects and the information that they contained that nevertheless depended upon its former status as valueless trash. Without belaboring a simplistic Freudian interpretation, the tension between garbage being hidden in plain sight and its value revealing the reality of an individual’s or community’s situation follows a logic common to both psychoanalysis and archaeology as a discipline. The surface obscures a deeper reality and revealing the hidden creates new knowledge. Garbage is the first public expression of private consumption practices.

**Bill Rathje and The Garbage Project**

A wide ranging interest in garbage both within archaeology and in American culture in the 1970s and 1980s provided an important context for Bill Rathje’s Garbage Project. Proximately, the growing concern about garbage in the context of the changing face of American and global urbanism intersected with an particularly fruitful and contentious time in the development of archaeological theory. In the early 1970s, the emphasis of processual archaeology on the relationship between the individual or community and their environment had come up against the limits the material limits of artifact assemblages to present transparently human activity. The resulting commitment to middle range theory brought attention to the ways in which the study of past and present human behavior could inform archaeologists’ interpretation of material culture in the past. Michael Schiffer and Jefferson Reid proposed the concept of behavioral archaeology at the University of Arizona at the same time that the Garbage Project was taking shape (Schiffer 2015; Rathje 1984; Jefferson Reid, Schiffer, and Rathje 1975). The idea that the study of present behaviors could inform the study of present material culture and vice versa provided a foundation for modern material culture studies which, in turn, offered a larger intellectual framework for The Garbage Project (Rathje 2012, 376). Rathje was interested in studying garbage not only to demonstrate that people’s behaviors were different from what they publicly admitted, but also with the hope that showing this disconnect would motivate people to reflect on their behaviors and change (Rathje 2011). In this way, Rathje sought to contribute to the so-called “garbage crisis” of the 1970s and 1980s as well as to the larger project of archaeology.

The study of modern solid waste disposal and eventually landfills offered an easy opportunity for Rathje to query the behavior of contemporary communities. Archaeologists had long recognized the value of middens, rubbish pits, and other deposits of discarded objects. These deposits speak to both the material assemblages associated with every day life as well as discard practices and attitudes toward what is valuable and what is not. For Rathje, the relative stability of waste removal systems, particularly in the U.S., where trash in consistently and systematically collected and transported to landfills, created a relatively transparent lens through which to view consumption patterns on the level of both the household and community (Reno 2014).
While subsequently scholarship has worked to complicate the relationship between discard and deposit in landfills and to interrogate more rigorously the multitude of process of characterize deposition, Rathje’s work at a crucial moment in American cultural history defined the garbage as key resource for archaeological inquiry.

The immense body of scholarship produced by the Garbage Project makes it virtually impossible to summarize the reach and findings of this work. A special issue of American Behavioral Scientist published in 1984 presents a number of significant summaries of the Garbage Project, a popular work co-authored with Cullen Murphy in 1992 supplies a broad, easy-to-read overview, and a consistent stream of articles extending into the 20th century and Rathje’s death in 201x trace the impact and reverberation of this project. The first phase of the Garbage Project established its core methods and, as a result, are well-known. They involved sampling, sorting, and recording garbage collected by Tucson waste management to a special area of the municipal disposal site at which time it becomes property of the city (Hughes 1984). In most cases, the garbage was sampled by census tract rather than by individual household, but in some cases, under well-defined rules designed to guarantee participant anonymity individual household trash was analyzed usually in conjunction with paper surveys on discard habits. A set of codes enforced the systematic recording of the household trash. Rathje admitted that from the start the project was open ended without a specific research question beyond determining whether the study of household trash could provide guidance on a wide range of questions (Rathje 1984, 12). Over time, however, the project adapted its coding to accommodate research goals often generated through collaboration with industry or federal research institutes focused on particular patterns. For example, a collaboration with the USDA in the early 1980s focused on food loss and initially led the project to document more carefully meat fat trimmed from beef to test assumptions regarding the number of calories from fat among beef consumers (Rathje 1984, 25-27; Rathje and Ho 1987). Over the course of its 30+ years of work, the Garbage Project was able also to map food waste to show the simpler diets with fewer ingredients produced less waste. Rathje called this the “first principle of waste” when he observed that foods (and other products) consumed regularly, in general, are wasted less. Mexican American households whose traditional cooking practices often included fewer ingredients produced less waste (Rathje 1976; Rathje 1995). Similar patterns of waste appeared in an EPA sponsored study of household trash in New Orleans and Marin County, California with toxic household products that were used regularly appearing less often in the trash (Rathje 2001, 74). Households that purchased more pre-packaged meals discarded more fresh food. Similar studies to these which test and complicate these conclusions continue to occur globally (Mexico City xxxx; Australia xxxx).

In the 1980s, the Garbage Project also utilized in selective cases surveys on which respondents recorded their discard habits. Unsurprisingly, these did not correspond precisely to trash collected from the same households. Alcohol consumption was, for
example, under reported (Rathje 1985) as was the waste of beef during the mid-1970s beef crisis. Rathje explains the latter as being partly the result of stockpiling beef beyond a household’s regular ability to consume it. In this regard, the Garbage Project approached the more colloquial “garbology” by revealing the tension between what individuals admitted in a survey and their behavior. The consistent demonstration of this tendency further justified the value of the Garbage Project for understanding the tension between reports and practices that define the constantly changing expectations of our consumer age.

Among the more intriguing aspects of the Garbage Project is that it collected data and conducted analysis for the public sector represented by the USDA, the NIH, the EPA, and other state and local organizations. These collaborations demonstrated a direct tie between archaeology of the contemporary would and policy decisions at the federal and local levels. The Garbage Project also prepared reports and conducted research for trade organizations like the American Paper Institute, for corporations like Frito Lay, Oscar Meyer, NutraSweet, and Heinz. These collaboration between academic archaeology and the private sector is hardly uncommon, particularly in the rapidly growing American southwest where contractors and developers often worked closely with archaeologists to manage cultural resources in the face of large scale construction projects (Schiffer various articles from the 1970s). If the connection between the study of waste and consumer culture was not already clear in the patterns identified in the academic research coming from the Garbage Project, the interest of the major corporations responsible for a wide range of consumer goods makes this link explicit.

The work of the Garbage Project was not limited to using household waste to understand the character of consumer habits. Beginning in the mid-1980s, Rathje and colleagues excavated a series of landfills around the U.S. This component of the Garbage Project sought both to check the data gathered from intercepting household discard against the material in landfills and to attempt to understand the formation processes associated with landfills. The latter interest continued and updated the more casual observations of Alfred Kidder, for example, at the Andover landfill nearly a century earlier (Rathje 1992, 93-94). Rathje and colleagues were particularly interested in the volume of various materials in landfills and they soon discovered construction and demolition (C/D) which they did not record in their intercepted household trash made up a much greater volume of trash in landfills than they anticipated. Paper represented the other major component of landfills with the vivid description of paper phone books which appeared in landfill strata like “currants in a cake” (Rathje 1992, 104). Rathje was also able to push back against claims in the 1980s that diapers and plastics and, in particular, polystyrene under its various trade names including Dow’s Styrofoam took up a large and growing percentage of space within landfills. While polls showed that people often thought that plastics and diapers made up over 40% of landfill volumes, the Garbage Project estimates showed that the numbers were, in fact, under 5% (Rathje 1992, 104-106).
The landfill excavations also produced more technical studies that focused on formation processes in the landfill. They largely challenged the assumption that waste in the landfill decomposed at an even or predictable rate. The Garbage Project’s excavations revealed well preserved foods, grass clippings, and papers with dates. In fact, as we discovered at the Atari excavation in Alamogordo, they also tracked the presence of potentially hazardous chemicals in landfills including lead, mercury, and arsenic which are common in everyday consumer goods and used in a range of small-scale business whose waste ends up in municipal landfills. The Garbage Project produced data that demonstrated, in general, a higher than anticipated level of hazardous wastes in landfills. This had implications for the quantity and quality of leachate that landfills produced over time and their environmental impact. The potential of landfills to produce methane was also an issue of interest to the Garbage Project and they showed that most landfill produced less methane than anticipate in laboratory tests. From an archaeological perspective, the study of formation processes in North American landfills demonstrated the growing significance of chemical analysis in understanding the formation of cultural levels in late-20th century societies. This work also demonstrated the potential for archaeological methods of sampling, stratigraphic excavation, and coring to produce data relevant to policy makers and landfill designers.

A particularly compelling example of the long interpretative tail of the project is an article co-authored with David Platt and Michael Shanks on the role of garbage and 9/11 (Shanks, Platt, and Rathje 2011) which considers how the removal of the debris from the World Trade Center site to the Fresh Kills landfill and the recovery and display of personal objects in a number of public exhibitions presents a kind of utopian thinking where the objects shown to memorialize the past stand apart from the untold tons of debris removed from sights into a landfill or the hold of a ship poised to transport it for reprocessing. The removal of the debris from the World Trade Center site and the construction of a new building there overwrites the past trauma and produces a new, unscathed, utopian view of the site with only managed references to its history. For Shanks, Rathje, and Platt, archaeology plays a key role in the proposing new visions of future by documenting, winnowing, and curating the debris not just from the sites of monumental human trauma, but from the everyday life of individuals and communities over time. In this context, the Garbage Project presented not just a way to uncover the everyday practices of contemporary households, but also shed critical attention on the potential futures that these practices prescribed. In this way, the landfill became less a site of the discarded and rejected garbage, but, suggestive of Thompson’s Rubbish Theory, a place where objects pushed the margins of the everyday regain value as evidence for policies, critical engagements, and practical responses to life in post-war consumer culture. <temporal dislocation of garbage from objects at the end of use and ephemera to their persistence as trash in landfills (Thompson 9, Jelfs 2016, 11>
Beyond Garbology

As the Garbage Project had any number stakeholders — from behavioral archaeologists to policy makers, the private sector, and activists — it has also contributed to a wide range of work that look to garbage, trash, rubbish, and discard as a window into processes operating at the margins or beneath the surface of contemporary society. While opportunities to excavate landfills have proven rare and difficult to negotiate because of regulations, funding, and safety, surveys of garbage prior to it entering the landfill or recycling center have become a standard strategy to assess the effectiveness of recycling programs, the most cost-effective balance between landfilling and recycling, or attitudes toward waste management strategies on the local level (extract citations from Densborn MS 2016). Much of this work continues to focus on the relationship between the consumer and waste and follows a template loosely consistent with the Garbage Project. As we have already noted, Rathje’s study of garbage and municipal waste sites relied, in part, on the relative stability of modern waste management regimes which allowed the discarded waste to stand in for consumer practices without attending much to the processes associated with discard.

Recent scholarship has devoted more attention to unpacking the complexities associated with the networks, individuals, and flows that transport, process, and ultimately define our relationship to waste. In this work, the municipal landfill is less a destination for household waste and more a node in a global network of individuals, attitudes, capital and infrastructure, and formal and informal practices. As another example, recycling practices, which were studied from the perspective of household practices as part of an EPA grant with the Garbage Project (see Rathje 1984), often draw upon both formal and informal labor while operating on a global scale. In the 21st century the term “waste regime” (Reno 2009; Gille 2007) has come to describe the relationships between waste and practice. The fluidity of these waste regimes which draw upon through complex human, national, and economic networks contrasts with its irreducible materiality, which has come to fortify the agency of objects that goes well beyond their value as representations of human choices and habits. While many of these studies go well beyond the archaeological methods and practices pursued by Rathje, they nevertheless cite Rathje’s Garbage Project as an landmark in understanding the relationship between trash and 20th century society. Despite their different theoretical perspectives, methods, and goals, they are descendants of the Garbage Project.

Much of the late-20th century popular literature on garbage and waste emphasized the “garbage crisis” as a way to critique the impact of our consumer culture. In general, it has eschewed the rather narrow emphasis on municipal landfills and household discard in the same of a wider perspectives on the impact of our trash on both the global environment and the society of communities who find themselves dealing with our garbage (Royte 2005; Humes 2012; Dondero 2019). At the same time, historians such as Susan Strasser (1999) and Carl Zimring (2004; 2005) noted, the development of
sanitary standards in the late-19th and early-20th century that fueled the kind of disposable culture that by the mid-20th century had become an issue of concern the first wave of social critics of trash. More importantly, however, Strasser and Zimring showed that practices of disposing unsanitary waste transformed the individuals who worked with waste. If in the 19th century, individuals often recycled fabric (rags), paper, metal, and food for a wide range of purposes as a sign of thrift and often associated with women’s work in the home (Strasser), by the early 20th century, these same tendencies were seen as increasingly marginal practices. Households concerned with cleanliness and sanitation looked down on the poor, immigrants, and other groups who recycled goods or collected household waste. Moreover, the practices associated with scrap metal collecting were dangerous, the storage and sorting of rags were a fire hazard and perceived to be unsanitary, and the level of skills necessary for these jobs tended to be low. As a result, the work attracted immigrants and poor laborers and communities increasingly marginalized both the individuals and sites required for this kind of labor.

The persistence of such social stigmas into the 21st century has obscured key aspects of the networks that handle our solid wastes. Both Jeff Ferrell and Ben Stickle have explored the social world of scrapper, scavengers, and metal thieves as part of the long history of marginalizing individuals who deal with waste. It is worth noting that while neither scholar is an archaeology, they both immerse themselves in the same processes of discard that informed Rathje’s Garbage Project. Ferrell’s work (2006) documented his time spent time as a scavenger in suburban Texas in an effort to understand the ways in which discarded objects retain value both in informal adaptation and reuse and through the sale of scrap metal and other objects of value found discarded in a suburban setting. He filled both his house, his shed, and his wallet (in some cases) with the rewards of cruising the streets in affluent suburbs looking through piles of discarded objects set out for trash removal. Ferrell recognized that the value of discarded goods is far from absolute and much more aligned with the way individuals and groups see these objects. Stickle (2016) explore the shadier realm between the work of scrappers who sorted waste for objects of value and metal thieves who would remove metal from what Schiffer and Rathje would call “systemic contexts,” and demonstrated how the marginalized labor of the former often blurred into the illegal work of the latter. Notably, Stickle observes that despite Ferrell’s and Zimring’s work on individuals involved in the informal labor of metal scrapping, no clear definition exists for these marginal practices further demonstrating how scholarship has struggled to understand the complexity of actors present in these networks.

Joshua Reno’s important work at the “Four Corners” landfill in Michigan likewise interrogates how practices of finding value in discarded things. His work (2009) explores scavenging practices among landfill workers at a landfill in Michigan and situates in their practices the larger discourse of value initiated by Thompson’s Rubbish Theory, but emphasizes how discard and reuse practices rely upon complex networks of relationships defined by not only the objects themselves, but also social practices,
economic status, and various political commitments. This shift of attention allowed Reno to show that industrial character of solid waste removal serves to obscure the relationship between people and things and particularly in relation to scavenging and salvaging. By working and doing research at the landfill, Reno succeeds in humanizing the “waste regime” and making the marginal individual and practices visible.

A similar spirit motivated the The MIT Track | Trash project to trace the movement of our trash not only through urban space of cities, but also on a global scale. By creating a unique GPS tracker that could move through the solid waste system and record its location periodically, the MIT project was able to demonstrate to national movement of domestic waste across the U.S. and, in some cases, marked its departure from American shores for processing in China, India, or elsewhere in the “developing” world. As a complement to Reno’s work in the U.S., a growing number of scholars have sought to document scavenging, recycling, and other forms of solid waste processing that takes place outside of the U.S. The export of discarded electronics, for example, to the “Global South” has fueled an growing interest in the human impact of this trade in waste, and e-waste in particular, on communities around the world (Lepawsky 2018; Alexander and Reno 2012). Josh Lepawsky’s recent work is particularly significant in this regard as it recognizes the diversity of e-wastes, the various rules and regulations that define or fail to define its movement, and the comparatively small quantity of post-consumer waste being exported to Global South in relation to the pre-consumer e-waste produced through the manufacturing processes behind contemporary electronics. His work emphasizes the complex ethical landscape surrounding e-wastes on a global scale complicated by the multidirectional character of e-waste flows and the dense network of agents involved in its movement.

As consumer culture itself functions on a global scale, it is hardly surprising that the United States has also exported attitudes toward sanitation and sanitary practices that have greatly increased the amount of trash produced on a global scale. In cases like India, these attitudes combine with existing prejudices to reinforce the marginal status of individuals working with trash who make up an often vast and poorly understood informal economy. Elsewhere, the exported attitudes combined with consumer practices have led to the vast expansion of landfills, informal dumps, and waste regimes that have contributed to the degradation of the environment at a social and economic cost for communities the world over. Francisco Calafate-Faria’s work (2013, 2016), for example, among the scavengers and recyclers of Curitiba in Brazilian show how strategies of the North, particularly the emphasis on environmentally responsible urbanism, intersected with the situation of the global South where migrants from rural areas found work in the city as catadores whose labor has made both the city and Brazil one of the leading recyclers in the world. The contrast between growing mountains of waste, environmental and ecological policies, and the plight of dispossessed and marginal urban underclasses who labor in the shadow of the growing economies and gleaming cities of the “Global South” reflect the relentless flow of global capital and
cities built to European and American urban standards. In many ways, the recent research on garbology both from an American and global perspective evokes the “slow violence” unpacked by Rob Nixon’s classic work by that title. Nixon’s introduction began with Larry Summer’s infamous World Bank memo which observed ”the economic logic behind dumping a load of toxic waste in the lowest-wage country is impeccable” (Nixon 2011, 1-2). The movement of European and American garbage, toxic or otherwise, to the global “South” in the name of economic efficiency, reveals the deeply structural inequalities present in existing waste regimes. It also makes clear the potential for a Garbageology of the 21st century to reveal more than the complex character of household discard and make visible the relationship between our waste regimes and social justice on a global scale. Nixon’s sensitivity to issues of global environmental justice amplified earlier work of Benjamin Chavis (1987) and Robert Bullard (1990) who demonstrated that poor communities and particularly African Americans, Native Americans, and Latino communities were disproportionately impacted the proximity of hazardous industrial activities, the dumping of solid and toxic waste and the use of pesticides.

While archaeologists have not necessarily contributed to these particular studies, archaeologists have started to look toward documenting trash in sea, for example, as a way to consider the impact of human activities on the environment and as a way to critically engage with the concept of the anthropocene. Much of this, by necessity, takes place in a transnational context. For example, the work of Arnshav and colleagues (Arnshav 2014) in the harbors of Scandinavia demonstrate that the sea had long served as a dumping ground for both household and large scale waste. Well-known sites like the Titanic wreck are being increasingly strewn with modern trash raising concerns about the integrity of these historical sites. Óra Pétursdóttir’s research on the beach trash in Norway not only made clear the global character of this garbage, but also the role of this drifting discard as “unruly,” “pestering,” and above all “aggressively” present (Pétursdóttir 2017). The presence of this beachside trash is not representative of any particular human actions; instead, these assemblages have emerged as part of the myriad coincidences of natural, material, and human interventions. This way of thinking about archaeological objects informs a more sophisticated approach to the archaeology of the “Anthropocene” that goes beyond the systemic approaches that have characterized the earliest work of the Garbage Project and offered a fundamentally new way of “realizing the radical potential” of archaeology to understand the Anthropocene as the interplay of agency and objects.