

Aesthetic Fatigue

Aesthetic Fatigue:
Modernity and the Language of Waste

Edited by

John Scanlan and John F. M. Clark

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P U B L I S H I N G

Aesthetic Fatigue: Modernity and the Language of Waste,
Edited by John Scanlan and John F. M. Clark

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PREFACE

The majority of the essays in this volume were originally presented as papers at a conference on “Modernity and Waste,” organised and chaired by John Scanlan, and held in July 2006 at the Arts and Humanities Research Council (AHRC) Centre for Environmental History at the University of St Andrews. It was the final of three annual international events sponsored by the AHRC Centre, whose work was themed around studies of *waste* and *wastelands*; in previous years—2003 and 2004—similar gatherings had taken the form of invited workshops whose primary purpose was to bring together a diverse body of international scholars from a variety of academic disciplines in the hope that they might benefit from sharing their thoughts and ideas with others similarly intrigued to understand what could be learned from the study of “waste.”

The origins of the AHRC Centre lay in a collaboration between the universities of St Andrews and Stirling, dating back to the 1990s, and at that time led by the historians Chris Smout, the Historiographer Royal since 1993 (St Andrews) and Fiona Watson (Stirling). John Clark arrived at the University of St Andrews in autumn 2000 to take over the running of its Institute of Environmental History, established by Smout, and proposed to build on their success by submitting a collaborative bid to the Arts and Humanities Research Centres Scheme on the historically rich potential of “waste” as a subject around which a series of related projects could be themed. As uncultivated or disused land, and as rejections, or discarded material objects, waste encompassed rural and urban environmental history. The bid was successful, and resulted in a substantial grant to form a joint AHRC (then AHRB) Centre for Environmental History that was established in October 2002.

Our principal remit was to draw upon waste to establish environmental history as an intellectually urgent field of enquiry within mainstream history, and cognate areas in the humanities and social sciences. By design, our research was interdisciplinary and multidisciplinary from the outset, and this volume aptly embodies our research agenda. In 2003, John Scanlan joined the Centre to undertake a project on “The Language of Waste,” and soon after became the Centre’s Project Officer.

During the lifetime of the Centre, over eighty academics visited St Andrews to present their research, and their number included historians,

geographers, art and architectural theorists, sociologists, philosophers, literary scholars, artists, and a film-maker—Michael Chanan, whose 2005 documentary, *Detroit: Ruin of a City*, co-directed with American sociologist George Steinmetz, was given a first British showing at the Centre.

Most of the papers gathered here have been substantially revised in light of discussion at the “Modernity and Waste” conference and subsequent editorial and peer review. Several of the essays had other origins and were, in a manner of speaking, “commissioned” in its aftermath, including the essay by Stokes and Sambrook, which gives a hint of the work that will soon emerge from their recent ESRC study on the management of household waste. The essays by Piers J. Hale and Jill R. Payne arise out of their prior association with the Centre at St Andrews—Piers Hale had been a speaker at the Centre in 2003, and the environmental historian Jill Payne (as well as being a speaker at earlier workshops) completed her PhD at the Centre under the supervision of Chris Smout and, latterly, John Clark; the essays by Scanlan and Viney were, respectively, written and selected especially for this volume.

John Scanlan
John F.M. Clark

INTRODUCTION

**AESTHETIC FATIGUE, MODERNITY
AND WASTE**

JOHN SCANLAN

It is difficult not to arrive at the view that a spectre of waste hangs over modern western society, and its culture and history. The extent to which we seem to be willing to acknowledge this suggests that waste actually haunts our *consciousness*—and, specifically, consciousness as a kind of temporal awareness or sense of finitude.¹ If we reflect on the discourse of sustainability that we are now so familiar with, after all, it irrefutably rests on a language of waste reduction that is itself shaped by the social desirability of fixing our collective gaze on a horizon that surpasses merely the immediate or close at hand. It recognizes that the consequences of the lives we live and the choices we make today reverberate for longer than we—finite and human—can perhaps properly comprehend.

WHEN THE WORLD IS RUNNING DOWN ...

Before the idea of working towards a sustainable future had become a common feature of everyday life (in the last two or three decades) - and more specifically attached to concerns about the fate of life on this planet - the threat of mere waste stuff, it may surprise us to learn, loomed large enough that it could promise the reversal of human efforts to fashion life, human society and the world in accordance with the apparent mastery human reason had attained over nature since the emergence of a modern world shaped by Enlightenment ideals. And despite a contemporary worldview that is increasingly attentive to the sustainability of the resources and energy we use, there still lingers, in the background, a *language* of waste that reveals itself upon closer scrutiny. Sometimes it is found in a kind of moral discourse that cautions against the dangers of profligacy; at other times we see it beneath technocratic visions of effi-

ciency and innovation, or even in artistic gestures that illustrate how easily our waste stuff gives away an essential truth about what it is to be human today. In the media, and in culture more generally, the dangers of all kinds of waste are revealed through visions and representations that hint at societies in terminal decline, wallowing in filth, enslaved to the temporality—and ideology—of consumer society and technological innovation, and where artists and museum curators, through their ability to disarm us, often seem to offer the most powerful visions of our situation and the complicity of each of us within it.² Waste also always seems to be the product of an over-zealous or exuberant expenditure of energy, as we see if we look at the recent history of Wall Street and the City of London, the citadels of capital whose own waste products brought western economies low—“toxic” loans and trading in the suspiciously *leftover*-sounding “derivatives” superseded the earlier “junk” bonds of the 1980s and 1990s.³ This language of pollution and negative value is not accidental: where human interests are at risk of erosion, it is a terminology of waste that comes ready-to-hand to flag up what is at stake. At this very moment, as I write, my own bank—the news announces—has been downgraded to “junk” status.

Waste illustrates the deadly effect of time, and begins to loom where we lose control of events and places, or become negligent of the consequences of our actions. The language we use to come to terms with it characterises modern life’s pursuit of order, efficiency and perfection as itself the source of a kind of *aesthetic fatigue*.

In recent years, waste has continued to appear in many of its familiar guises, but it also lurks behind some of the most forward-looking attempts to develop an eco-architecture, and encourage so-called “cradle-to-cradle” product design, and a variety of smart technologies that would reshape our relationship to the environment.⁴ The familiar is relatively easy to identify: we need only point to the repeated recurrence of garbage strikes and the force with which they can remind a community that whatever other advances in waste reduction and disposal have been made, the residues of daily life are permanently present and can quickly become “active” in ways that unmake the fabric of society. On one such occasion, authorities on the Italian island of Capri had to take steps to prevent an influx of tourists as the summer approached, thereby jeopardizing the local economy, simply because the closure of a municipal dump had left the island awash with rubbish. “We just cannot manage to get rid of the waste generated by 13,500 residents and 3,500 guests,” the mayor of a village on the island told *The Independent* newspaper. “Imagine what it will be like when we have to deal with the rubbish produced by tens of thousands of tourists who arrive at the heart of the summer.”⁵ Similar fears about being overrun

with material wastes followed New York City mayor Rudy Giuliani's decision to close the Fresh Kills landfill in 2001 before legislation had been approved to allow for the exporting of waste to other states.⁶ One risk—and a fear expressed by some—was that if public authorities ceded control of waste management it could all-too-easily fall into the hands of the kind of unscrupulous operators portrayed in the hit TV series, *The Sopranos*—about a mobster for whom the trafficking of waste offers a convenient disguise and a non-suspicious form of business respectability.⁷

The mountains of trash depicted in the Oscar-winning 2010 documentary *Waste Land*, set around Jardim Gramacho near the city of Rio de Janeiro—the world's largest landfill site—may suggest a strong equivalence between poverty and waste, yet it merely echoes what has seemingly always been the case within modern societies geared around production and consumption. Not only do the most desperate always find a use for what the better off deemed to be either worthless or of negligible use, but they usually found themselves condemned to live in “wastelands” of one kind or another.⁸ If we travel back in time to mid-Victorian London, we will find an economy of waste and poverty that was the main source of subsistence for many: those in pursuit of wealth created vast amounts of waste, and the poor absorbed it and extended its life.⁹ A link between poverty and waste has been identified also in more contemporary examples of what Lindsey Dillon calls the “socio-ecological transformations” of former urban wastelands (often termed “brownfield” sites). The transformations of these sites have become common in recent decades but, Dillon suggests, still seem to be unable to offer the hope that there is a way out of a wasteland that would be defined according to recognised indices of poverty, and often end up merely remaking existing inequalities around race, health and their links to the quality of habitable space.¹⁰

But perhaps less apparent to a casual observer is the impact of the accumulated wisdom gained from centuries of struggles against waste, pollution and the effects of profligacy. It is a historical knowledge and sensibility that fundamentally grounds the ideas of waste-minimisation, or “zero waste,” that seem to be driving technological innovation today, remaking the product world and the homes and buildings we live and work in. And alongside a world that is, in aesthetic terms, refashioned, it is hoped that a new eco-awareness will emerge in the form of attitudes and actions that recognise the impossibility of separating the present from a distant future where the effects of how we live today will be felt. We might point to developments in architecture, such as the Eastgate Building in Harare, Zimbabwe, which minimizes energy waste by mimicking the heating and cooling principles of a termite mound in order to maintain a constant tempera-

ture and reduce energy use—but this seems a long way from the more makeshift kind of buildings and austere dwellings celebrated in Martin Pawley’s 1975 book *Garbage Housing*.¹¹ The former embodies the rise of a design movement that has sought to learn from natural systems, while the examples revealed by Pawley—a generation ago—worked towards minimizing energy use through the quite basic method of recycling waste products (such as bottles and cans) as building materials.

Some of the most celebrated names in the world of architecture and design have for some time now been trying to meet the challenge of working towards futures that are, for instance, carbon neutral. Foster + Partners’ Masdar development in Abu Dhabi, led by Sir Norman Foster, claims to combine “state-of-the-art technologies with the planning principals of traditional Arab settlements to create a desert community that aims to be carbon neutral and zero waste”:

A mixed-use, low-rise, high-density development, Masdar City includes the headquarters for the International Renewable Energy Agency and the recently completed Masdar Institute. Strategically located for Abu Dhabi’s transport infrastructure, Masdar is linked to neighbouring communities and the international airport by existing road and rail routes. The city itself will be the first modern community in the world to operate without fossil-fuelled vehicles at street level. With a maximum distance of 200 metres to the nearest rapid transport links and amenities, the city is designed to encourage walking, while its shaded streets and courtyards offer an attractive pedestrian environment, sheltered from climatic extremes. The land surrounding the city will contain wind and photovoltaic farms, research fields and plantations, allowing the community to be entirely energy self-sufficient.

The development is divided into two sectors, bridged by a linear park, and is being constructed in phases, beginning with the larger sector. The masterplan is designed to be highly flexible, to allow it to benefit from emergent technologies and to respond to lessons learnt during the implementation of the initial phases. Expansion has been anticipated from the outset, allowing for growth while avoiding the sprawl that besets so many cities. While, Masdar’s design represents a specific response to its location and climate, the underlying principles are applicable anywhere the world. In that sense it offers a blueprint for the sustainable city of the future.¹²

Early in the new century, the “intelligent design” of such large-scale projects was matched at the everyday level by a drive towards “intelligent homes,” as illustrated by MIT’s *House_n*, one of a number of examples which, according to Lynn Spigel, offer “a curious inversion of the relation between people and their things,” resulting, we might say, in a situation in which the active subject is “dispersed” in systems and technologies:

Intelligent agents become more lifelike (as they take on a series of cognitive and motor tasks) while humans become more “thing-like” (as they submit their bodies to checkups, judgments and repairs).¹³

As we slipped into what a few generations ago was conceived as a distant sci-fi kind of existence, such visions of the future were as much driven by ideas about how to manufacture environments for sustainable living as they were by the blurring of distinctions between the human and the machine in the Posthuman world to come. Thus, researchers on the *House_n* project, it was reported, were “also exploring ways that a home can use sensors to monitor the home’s performance to help people understand the implications of their behaviour on energy consumption.”¹⁴ That such intelligence now extends to the mobile technologies we increasingly carry around in our pockets means that anyone can, in theory, monitor their own home energy use, and remotely control it via smartphone applications. Indeed, you might want to want to raise your environmental awareness through “Apps” that monitor, in real-time, the sources of energy supplying our National Grid. In the terms of Martin Heidegger’s well-known essay “The Question Concerning Technology” this is yet a further technological “revealing” of natural forces:

The energy concealed in nature is unlocked, what is unlocked is transferred, what is transferred is stored, what is stored up is, in turn distributed, and what is distributed is switched about ever anew. Unlocking, transforming, storing, distributing, and switching about are ways of revealing.¹⁵

In terms of working towards a goal of saving energy and eliminating waste (whether that is wasted resources, or wasted human effort), these are all arguably extensions of the same logic that produced commonplace technologies such as refrigeration, and even the kind of automation evident in sink units for food waste disposal; that is to say, they are extensions of a technological reason that continually remakes, refines and hopefully makes more sustainable our relationship to nature.¹⁶

But off-loading tasks onto intelligent systems and devices also runs the risk that we are simply freer to indulge other distractions that reduce our level of engagement with how our actions affect the world around us. The expansion of digital memory provides a useful analogy here: the increasing processing power of personal computers and the advent of apparently limitless storage capacity that drives revolutions in home entertainment media remakes the ways that we may understand “leisure time”: it allows for a surfeit of possible future experiences. That might seem to many of us as an undeniably positive development—yet, we need to ask also what it

does to our sense of the world that we inhabit in “real” time. It surely illustrates one possible challenge to living with an awareness of our finite limits. Reflecting on the challenges faced in simply remaining aware of the dangers of un-checked energy use, for instance, the environmentalist Bill McKibben saw that it was something akin to what I have described elsewhere as a kind of “surfacing” that warps our awareness:

We are fatally confused about time and space. Though we know that our culture has placed our own lives on a demonic fast-forward, we imagine that the earth must work on some other timescale. The long slow accretion of epochs—the Jurassic, the Cretaceous, the Pleistocene—lulls us into imagining that the physical world offers us an essentially stable background against which we can run our race. Humbly, we believe that the world is big and that we are small. This humility is attractive, but also historic and no longer useful. In the world as we have made it, the opposite is true. Each of us is big enough, for example, to produce our own cloud of carbon dioxide.¹⁷

Energy, in a sense, is what the language of waste (in its positive expression—efficiency, good resource management) is all about.

MODERNITY, CONSCIOUSNESS, WASTE

All of this is to say that increasingly, our sense of waste is conditioned by the ascendancy of a sustainability agenda that reaches from global politics to the design of systems of energy conservation. Even if we don’t acknowledge that in encouraging us to think positively about how we shape the future we have diverted attention away from representations of ruin, depletion, pollution and decline, any serious reflection on what drives such developments must come back to the relationship between modernity (the culture, beliefs and ways of organising modern societies) and waste. Studies of the impact of capitalist modernity on nature, for instance, don’t have to look far to find evidence of its inherent destructiveness.¹⁸ Teresa Brennan points to a truism when she says that “to satisfy the demands of large-scale production, more and more of nature” was destroyed:

In this sense production under capitalism is consumption, not production; it gobbles that which is already there, gives nothing back but waste [...] Because so many of the commodities it produces cannot be recycled (in general) or because, if they are agricultural, they tend to exhaust the conditions of their own production, then, given that nature is the source of value, capital can only profit by continuing to exploit every available natural source.¹⁹

But I would stress also that waste works against the future, and against sustainable living in more subtle ways: it is not just because the stuff of waste may pollute, or that it illustrates the profligate use of scarce resources that we have to be concerned about it. Aesthetic sensibility, consciousness, and time-awareness are all bound up in “experience,” and are equally deserving of our attention, precisely because waste creates a space—an interior life, a sensibility, one might say—where normal attentiveness to present or future concerns become disengaged. Hence, however we might define a wasteland, it is not merely an abandoned, depleted or polluted space. Here Michel Serres elaboration of the ways in which a variety of “hard” and “soft” wastes also points toward a broader phenomenological consideration of our subject:

Let us define two things and clearly distinguish them from one another: first the hard, and second the soft. By the first I mean on the one hand solid residues, liquids, and gases, emitted through the atmosphere by big industrial companies or gigantic garbage dumps, the shameful signature of big cities. By the second, tsunamis of writing, signs, images, and logos flooding rural, civic, public and natural spaces as well as landscapes with their advertising. Even though different in terms of energy, garbage and marks [of the latter kind] nevertheless result from the same soiling gesture, from the same intention to appropriate [...] ²⁰

Wastelands are also imaginatively constructed zones—indeterminate, unregulated, un-policed or supervised—that seem to exert an almost magnetic pull as location or dumping ground for other “wastes.”²¹ Peter Wynn Kirby, an anthropologist of contemporary Japan, gives an interesting illustration of how desolate areas around Tokyo attract unusual acts of dumping, including the “abandonment of pets such as cats and dogs on the periphery [...] leading to an abrupt rustication of these domesticated pets in a simultaneous dilution of ‘the wild’.”²² Such examples illustrate in one way how waste takes up residence in the mobile and the indeterminate, of how it applies to almost everything in transit between accepted categories of value and understanding.²³ Kirby thereafter makes a persuasive case for the importance of seeing waste within a context—in his terms, an *ethnographic* one—that embraces a nuanced understanding of how environmental practices in different societies produce their own highly variable kind of waste consciousness:

Attitudes toward waste are not universal; they modulate with reference to history, differences of language, notions of productivity, constructions of thrift, regulatory landscapes, classifications of vermin and outcasts, exposure to and participation in local, regional, and global environmental dis-

courses, and so on. Even within a given society there are marked variations.²⁴

As a student of western modernity who indeed tends to view phenomena like waste within a broader context, I recognise that it is still all too easy to generalise—I am probably guilty of it to some extent, and realise that “western modernity” could be said to incorporate many modernities; but in thinking *historically*—thinking of modernity as a kind of consciousness that has roots in certain philosophical assumptions about the world—it is useful to make general observations that can sum up the epochal shifts in experience that otherwise might be lost. One conviction I share with Kirby is in the need to expand our understanding of what an *environment*, and an environmental problem, is. My own more recent work on the interrelationship of human-environmental-technological factors in sustaining memory, for instance, rests on a view of human consciousness and action that stresses the primacy of the various kinds of *ecologies* we might be said to occupy in contemporary western societies—specifically ecologies of remembering and forgetting—and which alter our environmental consciousness and our time-place awareness.²⁵ These, I suggest, ought to take precedence over assumptions that historically drove the development of my own nominal discipline of sociology, such as “agency” and “subjectivity,” but which today can’t begin to account for the importance to society of the broader ecological fate of life.²⁶ The realisation that has to be made is summed up by the French Sinologist François Jullien, whose work has elaborated on the differences between western philosophy and Chinese thinking, and stresses the many ways in which the latter places the individual *within* nature, as opposed to in the position of “subject” viewing the natural world as a separate object. Here he is reflecting on how he responds to an image of himself undergoing the “silent transformation” of aging, but we might equally apply these words to the way that knowledge of our own wasting activities often comes to us as a shock:

I thought I was a *subject*: a subject of initiative, one who conceives and desires, is active or passive, but one which always retains the sense of its being and self-possession. Admittedly it is a self that knows itself to be caught in a totality of external as well as internal interactions which hem it in, but it still considers itself to be “generated from within,” according to the expression dear to metaphysics, *causa sui*. And then, right in front of me, this perspective is suddenly violently shaken, capsizing into this otherness: that of a cause or a continuum whose sole consistency stems from a mutual correlation of factors—mutually maintained and without regard to “me” [...].²⁷

What we might learn from looking beyond traditional western ideas of “subject” and “object” is how individuals in contemporary societies come to act in the kinds of thoughtless and disengaged ways that Peter Kirby finds also in his ethnography of Japan’s “wastescapes.”²⁸ One reason that a focus on consciousness seems to be desirable is that the phenomenon under observation is then not limited to the easily defined and generally accepted; it is not limited to the “wastes” we can point to in recognition, but allows for our understanding to be open to its constantly mutating presence. To consider the importance of consciousness extends our view to the whole repertoire of means through which waste is manifested, ignored or otherwise takes on some kind of monstrous quality.

In historical terms, our attempts to preserve and conserve, to save rather than squander and, indeed, to fashion a more sustainable future points to an unease with the pace of untrammelled change. But from the dawn of modernity the danger of progress tumbling into reverse—manifested in many battles against a variety of wastes—has been evident in a number of spheres of life: from public health to economic management, the regulation of land use, and so on. This collection of essays examines a strange and seemingly paradoxical relationship: between progress and decline, novelty and obsolescence, modernity and waste. And, as much as language can reveal aspects of this relationship to us, one aim of this volume is to show how modernity, with its desire to colonise unknown terrain and turn nature into use-value, implicates history—and a historical consciousness—in defining what it is to be human, and what the social organisation of human affairs, needs and interests does to our relationship with nature.

In broad terms “modernity” is shorthand for the historical break with “traditional” ways of life that gave rise to a particular kind of experience.²⁹ In this sense, modernity institutes a new kind of time-space that takes effect as the re-orientation of the human to the natural, and of the modern individual to its environment (which includes the human-made, or built, environment). Equally, modernity might be thought to represent a leap into the unknown: a condition of self-estrangement that splits individuals and communities from a familiar and seemingly self-sustaining habitat. In enacting a rupture with the past, the modern impulse sought a decisive break with the shortcomings of the old world (encompassing, for example, the political, the religious and the philosophical): it was fixed upon a clean, unspoiled, and more perfect future. Yet, paradoxically, even the most infinitesimal of imperfections may reveal how central waste and waste stuff is to merely being alive; and even though we may become cleaner and healthier, a world fashioned from bright surfaces and infused with light may just show up the irreducible and filthy reality of life.³⁰

The Utopian impulse, which is one version of a modern desire to begin anew, places memory, forgetting and imagination together. Amongst the many artistic and literary explorations of this impulse one particularly interesting case is offered by the 1997 movie, *Gattaca*.³¹ The society of the future we are presented with in this film illustrates the forward leap as an attempt to elude—if not to entirely erase—the reach of the past and its perceived contaminants, which are represented in the human form of a sub-class of human beings, so-called “invalids,” whose genetic imperfections are illustrated against the background of the chosen ones; those who are known as “valids” and who constitute the perceived future of a society that sees its viability in terms of the genetic manipulation of life. The invalids are those possessed of relatively negligible flaws—projected illnesses associated with aging—but who have been conceived “naturally” and without having been selected on the basis of in utero DNA testing, and are thus seen as condemned to a fate that can no longer be controlled.

The story follows the progress of Jerome, an “invalid” whose aim is to succeed in the elite space programme. His problem is that at birth he was given a projected life expectancy of 30 years, an age that coincides with the peak of his likely suitability as an astronaut. But with the aid of subtle means of genetic subterfuge, he manages to take on the identity of a once perfect, but now wheelchair-bound, man. To exist under this disguise he has to carry around bodily waste stuff—urine, hair, and loose skin from the one-time “valid” who has thus donated his identity. As an “imperfect” Jerome represents the real. At one point, when his identity becomes known to a woman he has confided in, he is referred to as one of “God’s children,” thus identifying chance and imperfection—cosmic luck—with the once perfect of all imagined entities, the Almighty, who now falls short of the miracles that genetic engineering has delivered for the wealthy in this utopian world.

But Jerome, like a futuristic Odysseus fighting free of the gods, overcomes his fate; he scrubs and cleans the loose skin cells from his body and incinerates contaminated clothes because the testing of elite astronauts is so widespread that mere traces of bodily matter can reveal the true identity of its owner. In one scene, a single hair believed to be from the under suspicion Jerome’s head is taken to a lab for testing—but the subterfuge works; the hair was planted by Jerome, and it produces a long computer printout, a profile, complete with a photograph and the verdict, “valid.” The message is clear: the cleaner and more perfect the world is, the more its imperfections can be shown up. Technology turns the waste of the material world into information, heritability into code—into a thing that

speaks; that will not forget. Waste, whatever its forms, reveals us for who we are because it is always *of* us.

THE ESSAYS IN THIS VOLUME

George Kubler in his book *The Shape of Time* elaborates an idea of “aesthetic fatigue” that sums up much of what, in this volume, seems to be characteristic of waste—its relation to time, to energy, to modernity’s desire for evermore perfect designs and forms of living—and to why we discard the past and the stuff that once adorned our world.³² Overfamiliarity, he suggests, makes us tired of the way the world looks; it makes the world itself look tired. “Waste,” as this book aims to show, is a multifaceted phenomenon—a by-product of technological progress, of efforts at landscape improvement and rational efficiency, of self-consciousness and of a jaded familiarity with the way things are. But it is also simply a by-product of living, which is essentially the expenditure of energy that is fed by the use we make of our environment.

What *Aesthetic Fatigue* therefore aims to do is look at how waste has been represented, imagined, narrated, analysed, and how, in its various manifestations—as material stuff, moral lack, or other spectral presence—it has transformed the nature of everyday life in modernity. While the essays that are presented in this volume represent a variety of academic traditions and disciplinary specialisms, they have in common shared themes, conceptual unities, and a concern with the very language of waste. *Aesthetic Fatigue* begins with considerations of early modern ideas of waste in the understanding of landscape, and works through literary, artistic, philosophical, social and economic considerations of waste as a key to understanding modern life.

Fredrik Albritton Jonsson’s essay on eighteenth-century wasteland “improvement” in the Scottish Highlands focuses on the role of marginal lands as the medium through which a hybrid modernity of agricultural productivity and traditional political loyalties was developed, and in which the socially redemptive powers of peat moss and a “wasteland mania” acted as a critique of the industrialism and revolutionary radicalism that was gripping societies elsewhere at the time. Jill Payne’s essay moves the discussion of the Highland “wasteland” as an under-used resource into the twentieth century when the economic and geographic potential for large-scale development in the Scottish Highlands was arguably at its greatest. But, as she argues, the twentieth-century veneration of the region’s outstanding natural beauty is the product of an eighteenth- and nineteenth-century stress on the importance of seeing in such natural environments an

alternative to industrialization, and a world that seemed to exist beyond the utilitarian emphasis on “progress.” This examination of hydroelectric development explores how the potential for improvement contradicted and threatened visions of the Highland landscape that had taken root in the aftermath of the rise of Romantic idealism, laying bare competing twentieth-century ideas about the “best use” of non-urban space, and the associated language of “waste” and “wasteland.”

My own essay (chapter 4) looks at the example of the Mojave Desert as, variously, a space of liminal encounters, military research, and play, in order to explore how cultural and phenomenological dimensions of forgetting can inform a more nuanced understanding of the ways in which “waste” and “wastelands” are manifested in contemporary life, yet at the same time obscured in their real dimensions and serious consequences. Steven Connor’s consideration of air pollution focuses on how the very idea of air has changed as a result of an awareness that the atmosphere itself had, in modernity, become the target of waste dumping in the form of a variety of aerial rejectamenta.

The next three essays have as a focus ideas about waste that drove ideas about political economy and sanitation in the nineteenth and early twentieth centuries. Piers Hale’s essay looks at the relationship between waste, nature and social justice by focusing on the emergent “green politics” of the nineteenth-century English writer William Morris—who saw the wasteful organization of labour in society as a means through which socialist ideas about the inequities of capitalism could be revealed and addressed—and the contrasting ideas of political economy popular at that time (in, for example, the writings of Herbert Spencer), which were underpinned by a belief in a form of social Darwinism that rested significantly on an association between human nature and the natural environment. William Kupinse’s essay examines the widespread use of waste as rhetorical device in the writing of H. G. Wells, and argues that closer examination reveals that two related issues inform the body of Wells’s oeuvre: the utopian impulse that manifests itself in Wells’s various programs of political and social reform, and Wells’s concept of “waste” as a negative motive force driving his utopianism. It is a reading that reveals Wells’s systematic exploration of the cultural construction of value, and aims to sketch the epistemological underpinnings of waste in the early twentieth century. Alberto Duman’s “The Future as a Virus in the Midst of our Waste” is concerned with the management of waste matter and hygienic practices in utopian projections of nineteenth century British urban planning, which he ties into concerns about the future of waste management and urban development through a description of his own 2006 artistic project—the

“Lamby Way Time Capsule”—which proposed the burial of a time capsule within the imminently closing landfill facilities at Lamby Way in Cardiff. The purpose of the time capsule, Duman explains, was to function as a *reversed* viral presence, keeping alive a particular discourse of the landfill, and thus waste, in the face of the planned aestheticization of the site which, of course, would continue a modern trend of obscuring the reality of waste.

The following three essays by William Viney, Maura Coughlin and Jaimey Hamilton examine how artists have made use of a variety of wastes to comment upon aspects of modernity. Viney’s essay looks at the figure of the ruin in modern culture and as represented in the work of Hubert Robert, Joseph Gandy and other artists. It is the *vision* of ruin, he suggests, that has often allowed us to imagine the future as something that might have a different temporal shape than the past and present. In contrast to the ruins of architecture, Maura Coughlin’s essay draws our attention to modern ruins of another kind—in the work of Vincent Van Gogh and Paul Cézanne whose paintings of quarries dwell on what she terms “the feral remains of capitalist exploitation of natural resources.” As she illustrates, theirs was not an entirely escapist construction of *nature* (considered, for instance, as the pristine, prelapsarian other to urban modernity) but rather an engagement with the awkward, ugly remains of modern exploitation. Jaimey Hamilton’s study of French *Nouveau Réaliste* artist Arman looks at works such as 1973’s *La Grande Bouffe (The Big Feast)*—a Plexiglas box filled with Seven-Up bottles, milk cartons, canned tomato tins, and detergent boxes embedded in clear polyester—as an example of how art reflected the activity of “wasting” in contemporary consumer culture. And, following Georges Bataille analysis of the role that the “accursed share” plays in culture, for Hamilton, Arman’s *spectacles* of waste (glass vitrines, like a shop window, that transform something as abject as trash into image, and then image into a luxury art object) are seen as useful allegories for the paradoxical relationship between commodities and waste.

What we might term the affective dimensions of “waste” occupy the authors of the next three essays. Edward Gitre looks at how the Second World War opened a new chapter on the history of boredom, a social malaise that he suggests became a common feature of an American culture and society overly acquainted with the nervous exhaustion and overstimulation occasioned by modern warfare, as the “retreads” of war (returning soldiers struggling to adjust to normality) illustrate some of the unintended consequences of war’s destructive acceleration of human experience. Next to the suburban unease of ex-servicemen that Gitre identifies, Rex Ferguson’s essay on F. Scott Fitzgerald’s *The Great Gatsby* explores how that

novel's grand settings of East and West Egg, as well as the debonair personality of Jay Gatsby and the phantasmagoric imagery of his extravagant parties, provides the context for one of the most telling depictions of the relationship between modernity and waste in literature. He suggests that the major themes of the novel—such as purity, transience and idealism—are all, in fact, underpinned by the spectre of waste. Finally, Harvie Ferguson returns to the question of boredom with a more philosophical probing of the experiential conditions of modernity. His essay plots the ways in which lethargy, a lack of interest in life, and an engulfing sense of indifference to, and of, the world are bound together in a peculiar unity that is distinctive of modern society. He further suggests that while repulsion, defilement, and fear of contagion are possible experiences in any society, for modern society, they constitute the peculiar aesthetic-moral unity of disgust. In the case of both boredom and disgust, he argues, the significance of the peculiarity of their modern dimensions has to be seen through a phenomenology of waste.

The final three essays develop approaches to understanding material wastes and how we dispose of them. Tim Cooper's essay observes that while capitalist modernity may depend upon waste, it nonetheless claims to be able to reabsorb its own leftovers, and to reincorporate its own excretions. In a survey of the idea and application of recycling in twentieth century Britain, and its relationship to modern conceptions of waste, he ponders its role in the reinforcement of capitalist ideology. Jennifer Gabrys's essay examines the consequences of the explosion in electronics and products such as personal computers (including their components) to reveal the often invisible nature of its wastes and contaminants, and also how these particular wastes spread into distant "spaces of remainder" that extend the waste ecologies of western societies. By investigating these spaces of electronic waste, she argues, we can begin to re-map technology through its remainders. In the final essay, Ray Stokes and Stephen Sambrook take a rather different approach to understanding how modernity has dealt with the unwanted stuff of everyday life by identifying trends in the developing business and economy of waste management—that is, through the ways that waste, at the level of local level, is collected, processed and disposed of—by focusing on the British public sector governance of the waste business with specific reference to the city of Glasgow in Scotland, which saw itself as a pioneer in waste management.

It is hoped that these essays and the issues they raise not only enliven the reader's fascination with those parts of life, those spaces and behaviours we ordinarily consider to be negligible, but that through the diversity of its approaches it can stimulate further intellectual engagement about the

lessons to be learned from modernity in relation to issues of environmental consciousness, time-awareness, and how we might live in less wasteful and more sustainable ways.

NOTES

¹ This is explored at length in John Scanlan, *On Garbage* (London: Reaktion, 2004).

² Recent examples include the Wellcome Collection's major London exhibition, "Dirt," March-August 2011; Michael Landy's exhibition / performance piece, "Art Bin," South London Gallery, January-March 2010; and Anthony Gormley's 2006 figure, "Waste Man," made from 30 tonnes of waste materials, which was temporarily erected next to the sea at Margate before being burned down, as intended, as part of Penny Woolcock's 2007 film, *Exodus*.

³ On the rise and fall of the junk bonds market in the 1980s and 1990s see, Charles P. Kindleberger and Robert Z. Aliber, *Manias, Panics and Crashes: A History of Financial Crises*, 5th edition (Houndmills, Basingstoke: Palgrave, 2005), pp. 63-64.

⁴ See, for example, Jonathan Chapman and Nick Grant, *Designers Visionaries and Other Stories: A Collection of Sustainable Design Essays* (London and Sterling, VA: Earthscan, 2007); Stuart Walker, *Sustainable by Design: Explorations in Theory and Practice* (London and Sterling, VA: Earthscan, 2006); Michael Pawlyn, *Biomimicry in Architecture* (London: RIBA, 2011).

⁵ John Phillips, "Capri, the Island Drowning in a Sea of Rubbish," *The Independent*, 07 July 2005, p. 30.

⁶ See Benjamin Miller, *Fat of the Land: Garbage in New York, The Last Two Hundred Years* (New York: Four Walls Eight Windows, 2000), pp. 279-287.

⁷ On the metaphor of "waste" in *The Sopranos*, see William G. Little, *The Waste Fix: Seizures of the Sacred from Upton Sinclair to The Sopranos* (New York and London: Routledge, 2002), pp. 141-155.

⁸ Lucy Walker, dir., *Waste Land* (London & São Paulo: Almega Projects / O2 Filmes).

⁹ For an analysis of life within London's mid-Victorian economy of waste as seen through the writings of Henry Mayhew, see John Scanlan, "In Deadly Time: the 'Lasting-on' of Waste in Mayhew's London," in *Time & Society*, 16: 2/3, pp. 189-206.

¹⁰ Lindsey Dillon, "Race, Waste, and Space: Brownfield Redevelopment and Environmental Justice at the Hunters Point Shipyard," in *Antipode* (2013), pp. 1-17.

¹¹ On Harare's Eastgate Building, see Karen Chung, "The Age of Techneco," in *Wallpaper*, 92 (2006), pp. 135-140; Martin Pawley, *Garbage Housing* (London: The Architectural Press, 1975).

¹² Foster + Partners, "Masdar Development. Abu Dhabi, United Arab Emirates, 2007-2008" (available at: www.fosterandpartners.com/projects).

¹³ Lynn Spigel, "Designing the Smarthouse: Posthuman Domesticity and Conspicuous Production," in *Electronic Elsewheres: Media, Technology, and the Experi-*

ence of Social Space, eds. Chris Berry, Soyoung Kim and Lynn Spigel, (Minneapolis, MN: University of Minnesota Press, 2010), p. 62.

¹⁴ “Industry Briefs,” in *Building Systems Magazine* (March 2000), p. 10.

¹⁵ Martin Heidegger, *The Question Concerning Technology and Other Essays*, trans. William Lovitt (New York: HarperPerennial, 1977), p. 16.

¹⁶ The relationship between technology and waste is explored in Scanlan, *On Garbage*, pp. 80-88.

¹⁷ On the idea of “surfacing,” see John Scanlan, *Memory: Encounters with the Strange and the Familiar* (London: Reaktion, 2013), pp. 130-140; Bill McKibben, “Worried? Us?” in *Granta 83: This Overheating World* (Autumn, 2003), p. 8.

¹⁸ See, for example, Herbert Marcuse, *One-Dimensional Man: Studies in the Ideology of Advanced Industrial Society* (Boston, MA: Beacon Press, 1964).

¹⁹ Teresa Brennan, *Exhausting Modernity: Grounds for a New Economy* (London and New York: Routledge, 2000), p. 115.

²⁰ Michel Serres, *Malfeasance: Appropriation through Pollution* (Stanford, CA: Stanford University Press, 2011), p. 41.

²¹ See, for instance, Zygmunt Bauman, *Wasted Lives: Modernity and its Outcasts* (Cambridge: Polity, 2004), Ch. 3, on the wastes of globalization.

²² Peter Wynn Kirby, *Troubled Natures: Waste, Environment, Japan* (Honolulu: University of Hawai’i Press, 2011), p. 7.

²³ See the extensive discussion in Scanlan, *On Garbage*, pp. 22-33.

²⁴ Kirby, *Troubled Natures*, p. 4.

²⁵ See Scanlan, *Memory*, Ch. 3, “Ecologies.”

²⁶ *Ibid.*, and my discussion in Scanlan, *On Garbage*, around the Greek idea of “techne,” pp. 80-83. Exceptions to my general statement here would include recent work in sociology and cognate areas that questions the continuing usefulness of uncomplicated ideas of “agency” and “subjectivity,” including: Harvie Ferguson, *Self-Identity and Everyday Life* (London and New York: Routledge, 2009); John Urry, *Mobilities* (Cambridge: Polity, 2007); Nigel Thrift, *Non-Representational Theory* (London: Routledge, 2007); and Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network Theory* (Oxford: Oxford University Press, 2005).

²⁷ François Jullien, *The Silent Transformations*, trans. Krzysztof Fijalkowski and Michael Richardson (London, New York and Calcutta: Seagull Books, 2011), p. 6.

²⁸ Kirby, *ibid.*, pp. 1-27.

²⁹ See, for instance, Marshall Berman, *All That Is Solid Melts Into Air: The Experience of Modernity* (London: Verso, 1983).

³⁰ New standards of cleanliness not only make us aware of dirt and dust, but seem to give rise to new forms of waste. See Joseph A. Amato, *Dust: A History of the Small and the Invisible* (Berkeley, CA: University of California Press, 2000), pp. 80-81.

³¹ Andrew Niccol, *Gattaca* (Los Angeles: Columbia Pictures, 1997).

³² George Kubler, *The Shape of Time: Remarks on the History of Things* (New Haven, CT: Yale University Press, 1962), pp. 80-82.

CHAPTER ONE

WASTELAND MANIA: THE ALTERNATIVE MODERNITY OF PEAT MOSS

FREDRIK ALBRITTON JONSSON

During the Scottish Enlightenment, agricultural improvers discovered a providential economy in the blanket peat bogs of the uplands. Where cursory observers saw only sterility and irredeemable waste, these naturalists and modernizing landowners claimed to uncover a secret abundance granted by divine mercy. Such sentiments peaked in the decades around the turn of the nineteenth century, when the northern and western edges of Scotland took on the guise of a promised land to many savants. Naturalists such as John Lightfoot and John Walker led the vanguard of improvement into the Highlands on voyages of internal discovery, cataloguing native species and compiling inventories of the natural advantages of the region. Curiously, much of their excitement about peat moss did not focus on the traditional use of peat as a fuel. Rather, they saw in blanket bogs a neglected source of soil fertility, an environmental fount of Gaelic virtue, or a removable cover hiding internal riches of fertile land. Such expectations played a crucial role in shaping the emerging new social and economic order of the Highlands and Hebrides at the end of the eighteenth century. The purported virtues of peat served to justify the specific system of land reclamation through spade agriculture which underpinned the spread ofcrofting settlements along the northwestern sea coast. Indeed, peat reclamation was fostered as a conservative form of population politics by landlords and intellectuals during the Scottish Enlightenment. This strategy set out to preserve and maintain a large traditional rural population by resettling Gaelic tenants and subtenants from the Highland interior to tiny plots of marginal soil along the Atlantic. The wastelands of the Atlantic coast were to serve as privileged sites of progress and virtue. For the defenders of the rural order, peat moss seemed to offer an alternative path to modern-

ization, which would reconcile commercial profits with a traditional social structure.

WASTELAND THEODICY

Peat bogs are the product of waterlogged and acidic conditions which prevent decaying vegetation from fully decomposing. The rock formations of the British uplands tend to be deficient in calcium, making local soils acidic. Such low pH levels, combined with an oceanic climate pattern of high rainfall in the west, favour the accumulation of peat bogs. Blanket bogs (mire) form in the uplands when soil conditions become waterlogged, depleting the oxygen and inhibiting decomposition. On average, blanket bogs grow to a depth of about two to four meters. At present, blanket bogs cover approximately ten percent of the land surface of Great Britain. The corresponding figure for the eighteenth century is not known but was presumably larger, because the conditions of the Little Ice Age are believed to have promoted the expansion of peat bogs in the British uplands. William Aiton's treatise on peat bogs asserted that the moors, wastes and bogs of Scotland amounted to approximately 14,200,000 (Scottish) acres around the turn of the nineteenth century. In this peculiar and difficult environment, a variety of *Sphagnum* bog mosses are among the few species to thrive. These surface plants in turn feed the underlying mire when they decompose, compacting gradually into peat bogs. Over time, the mass of peat tends towards a steady state where accumulation growth approaches zero when losses at the bottom balance additions on the surface.¹ From this perspective, one might describe peat as a form of ecological waste: organic matter which remains suspended in an intermediate stage of decomposition over centuries. Though such a state does not last indefinitely, the changes occur at a pace so slow that they seem utterly divorced from the cycles of husbandry practised in agriculture. Compared with the nutrient cycle of traditional farming, peat bogs appear quite stagnant and sterile.

Perhaps unsurprisingly, many early modern writers regarded peat bogs as irredeemable wastelands. They resorted to theology to explain the origins of such sterility. In texts such as Thomas Burnet's *Sacred Theory of the Earth* (1684) and John Woodward's *An Essay Towards a Natural History of the Earth* (1695), the wastelands of the world served as savage reminders of the Fall and the Deluge. After the expulsion from the Garden of Eden, humanity had been condemned to live on an Earth which refused to yield fruit without labour. The only path to the redemption of the soil lay through the arduous work of husbandry, but some regions of the Earth

resisted the restoration of agriculture. In this sense, peat bogs constituted material reminders of moral pollution and divine condemnation. Even the coming of Christ had not redeemed them from God's wrath.²

Economic practice, of course, often diverged from the condemnations of the natural philosophers. Notwithstanding the spiritual stigma, peat was highly valued by the population of the British uplands. In a land long denuded of its original forests, peat served as a cheap substitute for wood fuel. Since the late middle ages, peat cutting had been conducted on a large scale by tenants and landlords across Britain. Such practices were in fact carried out across Europe wherever conditions favoured peat accumulation. Dutch historians have shown that peat served as a crucial energy source in the early modern Dutch Republic, sustaining a large urban economy in northern Europe. Later, peat cutting became one of the pillars of the crofting system in Highland Scotland and the Hebrides. Fraser Darling calculated that a crofting family had to cut 15,000 peats per year to sustain its meagre existence.³ In the postwar Irish Republic, raised bogs became the site of industrial-scale extraction of peat, supplementing energy needs during the oil crisis of the 1970s. Currently, *Sphagnum* moss has become a horticultural mainstay, serving as a soil additive which increases the capacity of the soil to retain moisture and nutrients.⁴

The long-standing recognition of the practical value of peat spread to the intellectual elite in the seventeenth and eighteenth centuries. For a number of leading savants of the Scottish Enlightenment, the virtues of peat moss became a consuming fixation. Alongside the early modern identification of infertility with original sin, another powerful view of wastelands gradually emerged. This was the patriotic vision of a merciful God who had planted within every nation all the blessings necessary for its prosperity and power.⁵ Rather than projecting loss and sin on the natural order, it emphasized the agricultural and horticultural dimension of God's covenant with his chosen people. In the writings of John Walker and his fellow improvers, infertility was reduced to a mirage. Wastelands were only superficially barren. The role of the natural historian was to detect the secret blessings hidden on the periphery. In this way, religion, nationalism, and natural history converged in a movement of land reclamation. In so far as Scotland was a chosen nation, Isaiah's promise to Israel directly applied to the peat bogs of the north and west:

For the LORD shall comfort Zion: he will comfort all her waste places; and he will make her wilderness like Eden, and her desert like the garden of the LORD; joy and gladness shall be found therein, thanksgiving, and the voice of melody. Hearken unto me, my people; and give ear unto me, O

my nation: for a law shall proceed from me, and I will make my judgment to rest for a light of the people.⁶

In the first flora of Scotland, the *Flora Scotica* (1777), John Lightfoot described the virtues of *Sphagnum palustre* in terms of such a providential economy:

It is generally believed that the roots and decay'd stalks of this moss constitute a principal part of that useful bituminous substance call'd peat, which is the chief fuel of the northern regions. So that those parts of the creation, which, to the inconsiderate minds of man, appear the most trifling and insignificant, will be often found, upon mature enquiry, to be ordain'd by Providence for the wisest and most gracious purposes.⁷

For Scottish naturalists and their landowning patrons, the mercy of providence was simultaneously material and moral. By linking virtue to the effects of a harsh environment, they were able to posit the reclaimed wasteland as a place of moral regeneration: this was an ecological theodicy. Through the discovery of numerous uses of peat, the apparent evil of the wasteland was eliminated, or rather, subsumed into a providential plan. The recognition of such a theodicy begins to explain why the Highland improvers went beyond the obvious use of peat as a fuel and attributed to it so many far grander powers. In addition, the Scottish fascination with the multiple virtues of peat bogs was sustained by wider cross currents of population politics, counter-revolutionary ideology, and anti-imperial internal colonization.

Three case studies highlight the material context of peat bog colonization. First, Henry Home, Lord Kames, sought to reclaim the great peat bog of Blair Drummond in the 1760s and 1770s. For Kames, peat excavation promised not only to uncover a massive tract of fertile land, but also a means to preserve what he took to be the dying traditions of Gaelic society. A generation later, the chemist Archibald Cochrane made the apparent fertility of peat a central component in his anti-radical ideology of rural modernization. Peat was quite literally supposed to prop up the landed order in an age of revolution and imperial crisis by regenerating exhausted and marginal soils in the Highlands. Finally, John Walker's essay on peat from 1803 completed the dialectic by fusing chemistry with the programme of cultural preservation. Walker explained the physical and moral superiority of the Gael in terms of the purifying environment of the northern peat bogs. By resettling the native population on the bogs, these virtues would be preserved and emigration prevented, even as new commercial pressures were brought to bear on the Highland economy.

These three cases were representative of a larger movement, which involved substantial portions of the intellectual and agrarian elite of Scotland, from the aftermath of the Jacobite rebellion of 1745 to the end of the Napoleonic Wars in 1815. These projects included Mr. Graeme's experiments in moss husbandry in the middle of the 1750s, the soldier settlements of the Annexed Estates in the next decade, Smith of Swinridgemuir's reclamation projects, David Young's 1785 treatise on internal colonization through spade culture, and the premiums for wasteland cultivation awarded by the Highland Society of Scotland in 1790s and early 1800s. Theoretical interest in peat moss reclamation peaked between 1794 and 1826 with important works on the subject by James Headrick, James Anderson, John Walker, Archibald Cochrane (Lord Dundonald), William Aiton, Robert Rennie, Allan Maconochie (Lord Meadowbank) and Andrew Steele.⁸ Clearly this wave of treatises was spurred by the peculiar social, economic, and ideological pressures of the French and Napoleonic Wars. More generally, the wasteland mania after 1750 constituted the ideological origin of the crofting system which eventually came to dominate much of the northwest lands of Scotland in the nineteenth century.⁹

PEAT AND AGRARIAN MODERNIZATION

In current histories of the Scottish Enlightenment, Henry Home, Lord Kames (1696-1782), occupies a distinctly second-rate place as a defender of the polygenesis of races, a theoretician of aesthetics, and, perhaps most happily, a patron of Adam Smith and David Hume. His *The Gentleman Farmer* (1776) elicits little attention, despite its widespread appeal in the late Enlightenment. The subsequent significance of that other book, published in 1776 by Kames's client Smith, has, of course, done much to eclipse the reputation of *The Gentleman Farmer*. Yet for anyone interested in the wider currents of enlightened thought, Kames's agricultural theory and practice ought to be a central field of study. Two major themes of his involvement with the agricultural improvers stand out: on the one hand, his defense of the harmony of science and agrarian capitalism; on the other, his practical attempt to combat the problem of rural flight.

Kames was eager to render agriculture a philosophical pursuit. This meant above all the need to examine and integrate into farming practice the known principles of soil fertility and plant physiology. Here, Kames turned to the chemical and botanical expertise of his fellow Scotsmen Joseph Black (1728-1799) and John Walker (1731-1803). By grounding agriculture in the enlightened sciences, Kames sought to underscore the centrality of agricultural productivity to the social and political order.¹⁰ *The*

Gentleman Farmer must be read as a defense of agrarian capitalism and the landed interest against the mercantile, urban, and industrial sectors of the economy. Crucially, this conservative agenda involved harnessing the fruits of modern science as a weapon of social entrenchment. Yet such an alliance between agriculture and philosophy raised a fundamental problem. How could the landed interest be safeguarded if modern agriculture involved the destruction of the old feudal order and the ruthless reduction of the rural population through enclosure and labour-saving techniques? For Adam Smith, such a structural transformation was no cause for sentimental regret. Higher profits in agriculture were simply predicated on the decrease of rural population: “the diminution of the number of cottagers and other small occupiers of land” acted “in every part of Europe” as “the immediate fore-runner of improvement and better cultivation.”¹¹ Yet Smith’s clinical analysis held little appeal for men like Kames, Walker, and the leading Highland landowners in the late Enlightenment. Instead they embarked on a series of experiments to balance the priorities of rural modernization against what they regarded as the moral, social, and military imperative of a large and stable Gaelic population in the Highlands.

In a pioneering effort to resolve this tension, Kames turned from theory to practice. As early as 1764, he began to organize a Herculean scheme of drainage and removal on his estate of Blair Drummond in the Scottish Lowlands. His primary objective was to uncover the fertile carse land underneath a 2,000-acre peat bog. This enterprise took more than thirty years of labour to complete and was hailed by John Walker as “the most singular and considerable piece of improvement that has yet been executed in any parish in Scotland.” Walker and other admirers were particularly pleased with Kames’s recruitment of Gaelic Highlanders to colonize the Blair Drummond peat bog. They praised this recruitment as a humanitarian project of cultural and moral preservation. In the 1790s, the Highland Society of Scotland—the leading body of agricultural improvement in the country—recognized Kames’ achievement with a posthumous gold medal. According to the article on moss by Walker in the *Statistical Account of Scotland*, the resettled Gaels were men of “sober, frugal, and industrious” character “inured to hardships in their own country” and therefore “peculiarly qualified to encounter so arduous an undertaking.” A few years later, William Aiton—another leading bog expert—compared the floating of Blair Drummond moss favourably to David Dale’s industrial village at New Lanark outside Glasgow. Whereas Dale had recruited Highlanders to do manufacturing work, Kames’s strategy had retained Gaels in the agrarian order and was therefore a far superior project. Significantly, peat bog reclamation was done through backbreaking manual labour with the spade