

Institution: University of St Andrews 
Unit of Assessment: 30 – History
Title of case study: Science, waste, and the environment: Informing a sustainable future through an examination of the past
<p>1. Summary of the impact</p> <p>Through the Institute for Environmental History, the research of Dr John Clark and Dr John Scanlan foregrounds the importance of a social and cultural appreciation of knowledge formation in the sciences to increase public awareness of environment and sustainability. The research has had impacts on cultural life and civic society by engaging with public discourse surrounding the history of scientific authority, and related aspects of technocracy and the management of waste. The impact has had international reach, through nationally broadcast television and radio appearances in the UK, continental Europe and North America, resulting in a growing awareness of the cultural significance of waste. This growing awareness can be further charted through public museum and art exhibitions in the UK and India, which explicitly acknowledged the underlying research as their inspiration.</p>
<p>2. Underpinning research</p> <p>The underpinning research of the Institute for Environmental History (established 1992) has sought a reformulation of social life through a broader 'ecological' kind of thinking that is socio-cultural, historical, and phenomenological, and which seeks to challenge the artificial separation of the social from the natural, which is no longer viable at a time when anxieties about the future of society are increasingly determined by wider environmental concerns. This research programme began as an examination of the history of science, but extended its scope to encompass a broad social and cultural history of waste, within an interdisciplinary research context.</p> <p>Dr Clark's work examines the historical boundaries between nature and society – and between natural and built environments. He has undertaken this research while working as a Lecturer and as Director of the Institute for Environmental History at the University of St Andrews (2000-present). Research on the history of entomology resulted in articles published in a variety of journals across various sub-disciplines, and in <i>Bugs and the Victorians</i> (2009).¹ As one facet of his research, Dr Clark explored the intersections between the history of entomology and public health (the growth of medical entomology).² Through an examination of insects as vectors of disease, he identified a gap in historical literature on waste and sanitation in Britain. Little historical research had been undertaken on the 'house fly danger', for example, and the related subject of waste. These subjects were especially important in the context of environmental debates about the intellectual, social, and ecological legacy of the Enlightenment, and the urgent need for trans-disciplinary approaches to sustainability and to waste minimization and management.</p> <p>Consequently, shortly after taking up his position at St Andrews, Dr Clark made a successful bid (with Dr Fiona Watson, University of Stirling) for major funding from the AHRC (University Awards Scheme Grant, 2001-2005). Through his direction of postdoctoral research at the AHRC Centre for Environmental History at the Universities of St Andrews and Stirling, Dr Clark oversaw a number of research projects on waste-related subjects, which have resulted in a significant book, and a number of peer-reviewed articles by scholars with backgrounds in Sociology (Dr John Scanlan, Research Fellow, 2003-2004; Project Officer, 2004-2006), Geography (Dr Mark Riley, Research Fellow, 2004-2005), and History (Dr Tim Cooper, Research Fellow, 2004-2006), who now occupy senior lectureships at Manchester Metropolitan, Liverpool, and Exeter Universities, respectively. Their continuing research on waste, environment, and sustainability informs fundamentally important debates in contemporary Higher Education.</p> <p>Dr Clark's and Dr Scanlan's historical examination of waste and its management has provided</p>

Impact case study (REF3b)

valuable understanding of the relationship between the growth of affluence, in a fully realized capitalist economy, and the environment. In this respect, it has offered historical perspectives on the relations between consumerism, pollution, public health, and environmentalism. In particular, Dr Clark's research has engaged with current debates on incineration, recycling, and waste management in the contexts of progress and limits to growth.³

In elaborating a 'cultural ecology of waste', Dr Scanlan's research suggests that within the context of concerns about environmental sustainability, a socio-cultural, historical and phenomenological understanding of the human relationship to *waste* is required in order to think 'ecologically', which is to say, to be capable of understanding that society and nature can no longer be understood to be separate, and exclusive, spheres of existence. His 2005 book, *On Garbage*,⁵ sought to reveal hitherto overlooked issues about how the logic of social rationality, the temporality of progress and novelty and the increasing specialisation of intellectual endeavour within a contemporary academic environment that favours increasingly disciplinary specialisation misses the 'bigger picture' that now establishes an environmental context for social life in all its forms.

3. References to the research

¹Clark, JFM, *Bugs and the Victorians* (Yale University Press, 2009), 323pp. (A Japanese translation appeared in 2011 (Toyo Shorin), 335pp). ISBN: 9780300150919

²Clark, JFM, 'Sowing the seeds of Economic Entomology: houseflies and the emergence of Medical Entomology in Britain', *Parassitologia*, 50 (2008). ISSN [0048-2951](https://doi.org/10.1007/s12175-008-9151-1)
<http://www.ncbi.nlm.nih.gov/pubmed/20055240>

³Clark, JFM, "'The incineration of refuse is beautiful": Torquay and the introduction of municipal refuse destructors', *Urban History*, 34 (August 2007), 255-77. DOI: [10.1017/S0963926807004634](https://doi.org/10.1017/S0963926807004634).

⁴Clark, JFM, 'Jesse Cooper Dawes (1878-1955)' in HCG Matthew, Brian Harrison and Lawrence Goldman (eds), *Oxford Dictionary of National Biography* (Oxford, 2009).
<http://www.oxforddnb.com/templates/article.jsp?articleid=98422&back=>

⁵Scanlan, John, *On Garbage* (London: Reaktion, 2005), 208pp. ISBN: 9781861896346 [Completed at the University of St Andrews, while working on a project on the 'languages of waste'.]

⁶Scanlan, John and Clark, JFM, eds., *Aesthetic Fatigue: Modernity and the Language of Waste* (Cambridge Scholars, 2013). <http://disconnecting.org/scanlan/AESTHETIC-FATIGUE-ToC.pdf>

All publications are in the public domain and are 2* or above in quality, having been published by presses or journals which rely on rigorous peer review.

4. Details of the impact

The research of Dr Clark and Dr Scanlan has been directly acknowledged during the current REF impact period by news media, film-makers, artists, museum curators, and HEI teachers and practitioners. As such, it has helped to raise public awareness of the ways in which science and technocracy shape modern culture; the ways in which 'waste' is forgotten and rationalised out of life via social structural forces; and the ways in which these affect what, as a society, we value, and what we discard. Clark and Scanlan's reach has been international, and their media work has demonstrated how specialist knowledge of the history of waste can inform contemporary discourses and cultural trends, such as a garbage collection strike in Canada, or a major exhibition of 18 artists in Delhi, India.

Film and Radio:

As a director of the AHRC Centre for Environmental History, which undertook research on the history of waste (see section 2), Dr Clark was contacted to contribute to a television documentary series. In both pre-production and in filming, Dr Clark provided expert knowledge on waste in London, UK, for Trashopolis [S1 and S2], a five-part documentary series, for Pixcom International (Montreal) and Taxi-Brousse (Paris). Dr Clark provided a broad sweep of the history of waste; he addressed the legacy of Jesse Cooper Dawes, an early advocate of waste management,⁴ and the

Impact case study (REF3b)

history of contemporary waste issues, such as incineration.⁵ The series was first broadcast in September 2010 on *History Television*, Canada, and attracted 500,000 viewers [S1]. *History Canada* purchased the rights to repeat the series for six years. Rights to the series were subsequently sold to the *Smithsonian Network*, USA (aired 6 November 2011), and to *Discovery Europe*. The original series was selected as a *realscreen MIPCOM Pick* for 2010 and, when it aired on the Smithsonian Channel, the *New York Times* reviewed it as a fascinating new series, especially insightful because of its historical content (16 November 2011) [S5].

Based on their increasing profile, Clark and Scanlan's research has subsequently generated interest from other media sources. Both Clark and Scanlan were consulted for a two-part television series, *The Secret Life of Rubbish* for BBC 4 [S3 and S4]. This documentary series retold the story of post-Second World War Britain through its relationship with waste. Clark provided historical background research on Britain's relationship with, and management of, waste,³ and Scanlan provided a filmed socio-cultural commentary on waste, which was based on his book, *On Garbage* (cited in the film) [S4]. Broadcast in November 2012, the series was a timely reminder of Britain's relationship with its rubbish [S6].

A central facet of Clark's research has involved an examination of waste management practices, as they became 'professionalized' and 'municipalized' in the nineteenth century, and their contribution to a throwaway consumer society.³ As a result of this research, Clark was contacted by CBC (Canadian Broadcasting Corporation) to provide historical insight on waste and its management in light of a garbage collection strike in Toronto and Windsor. On 30 July 2009, he gave a 7-minute interview for *The Current*, a daily news and current affairs programme, on Canada's national CBC Radio One, which attracts about 4.3 million listeners each week [S7]. Clark's research on waste continues to attract media interest. Similarly, Scanlan provided historical and sociological insight into the cultural and intellectual dimensions of waste in an era of mass consumption for an interview on *Radio Student*, Ljubljana, Slovenia, on 3 April 2013 [S8].

Artists and Public Exhibitions:

Artists and museum curators who have produced public works for large audiences acknowledge the inspiration, in particular, of Dr Scanlan's *On Garbage*. A significant chapter of *On Garbage* examines the way that some modern art has come to develop an 'ecological' critique of modern society, and the crucial role artists have had in recuperating waste materials as a means of holding a mirror up to society. Scanlan's research influenced the British artist, Michael Landy, for example, in his exhibition / performance, 'Art Bin' (South London Gallery, 29 January – 14 March 2010). Writing in *The Independent* (2 October 2009), Landy cited Scanlan's *On Garbage* as inspirational because *it addresses reasons why we find rubbish (which is a by-product of ourselves) so abhorrent* [S9].

Similarly, the reach of Scanlan's work was illustrated in another public exhibition, titled 'Re-claim / Re-cite / Re-cycle', which was held at Travancore Gallery in Delhi, India in April 2009. Writing in *Verveonline*, the curator of the exhibition of 18 artists began her summary of the exhibition with a quotation from Scanlan's *On Garbage*. She went on to explain: *The concept took shape after a chance reading through John Scanlan's On Garbage that talks of garbage not just in relation to street litter but rather terms anything bad as "garbage" – bad thought, writing, art, music et cetera; and we recycle these ideas, thoughts et al. to arrive at the "NEW"*. [S10]

Dr Scanlan also advised the Wellcome Institute for the History of Medicine on an exhibition and programme of public events related to the theme of 'Dirt' (2011). He was thanked in the exhibition book (V. Smith et al., *Dirt: The Filthy Reality of Everyday Life*, published by Profile books to coincide with the exhibition ['Acknowledgements' and p. 216]).

HEI Teaching and Practice:

Scanlan's research has had further educational impact. *On Garbage*, which has been cited over 120 times across a range of disciplines concerned with the social dimensions of environmental and ecological questions, has been used in the period as a key text for thinking about the nature of waste and sustainability by educators in a range of disciplines at institutions worldwide (such as the Universities of Exeter, Texas State and Sheffield) [S11].

5. Sources to corroborate the impact

[S1] Vice-President, International Production, Pixcom Productions corroborates involvement in Trashopolis programme and viewing figures.

[S2] Content Producers, Pixcom Productions corroborate involvement in Trashopolis programme.

[S3] Senior Production Manager, Lambert Productions corroborates contribution to television programme, *Secret Life of Rubbish*.

[S4] Independent Film Maker for the BBC corroborates contribution to television programme, *Secret Life of Rubbish*, and inspiration from reading 'On Garbage'.

[S5] Review in *The New York Times*, 6 November 2011, of the Smithsonian Network's airing of Trashopolis (<http://artsbeat.blogs.nytimes.com/2011/11/06/channel-surfing-trashopolis/>).

[S6] BBC episode guide for *The Secret Life of Rubbish*
<http://www.bbc.co.uk/programmes/b01p6mk2/episodes/guide>

[S7] 'Letters' section of *The Current* (CBC Radio One, Canada, 30 July 2009, 7 mins), 'Our Modern Relationship with Garbage' for reference to Clark's contribution:

<http://www.cbc.ca/thecurrent/episode/2009/07/30/july-30-2009/>

[S8] 'O Smetch in Smetovalich', Radio Student, Ljubljana, Slovenia, 3 April 2013:

<http://radiostudent.si/druzba/zeitgeist/o-smeteh-in-smetovalcih>

[S9] 'My Cultural Life: Michael Landy', *The Independent*, 2 October 2009. Verifies that Scanlon's book was inspiration for him: <http://www.independent.co.uk/arts-entertainment/art/features/cultural-life-michael-landy-artist-1796019.html>

[S10] 'Re-claim / Re-cite / Re-cycle' exhibition, Travancore Gallery, Delhi, India (April 2009). Gives direct credit to Scanlan as inspiration for the exhibit:

<http://www.verveonline.com/79/life/artview.shtml>

[S11] Corroborating evidence relating to impact in HEIs and through teaching by practitioners:

- 'Wastelands' (module), University of Exeter, Department of Geography
<http://geography.exeter.ac.uk/undergraduate/cornwall/babscgeog/structure/geo3425/>
- 'Waste Studies' (module), Texas State University, Department of English
<http://ma.english.txstate.edu/ma/Spring2010.doc> (pg. 10)
- 'Studio 12 Presents: Waste' Sarah Wigglesworth Architects in Association with University of Sheffield School of Architecture, <http://studio12-waste.blogspot.co.uk>