Mapping The Drowned World

by

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Statement

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Abstract:

Mapping The Drowned World

Climate-change is the new Cold War. Like the omnipresent threat of nuclear annihilation, climate-change looms in the background, a constant insidious threat: imminent and inexorable, yet ill defined. Written in 1962, during the perpetual slow-burning crisis of the Cold War, J.G. Ballard’s novel *The Drowned World* reads like an uncanny premonition of the key crisis of our current age: climate-change. As a bridge between the post-war apocalyptic fears of the recent past and current eschatological anxieties, this allegorical work of fiction is a rich source of information.

*Mapping The Drowned World* is driven by the research question: what can we learn about our world by re-reading, re-writing and re-interpreting *The Drowned World* through the lens of art? This three-pronged methodology has generated three suites of artworks: a series of maps, and two major installations in the form of ruined scale-model cities. In addition, a group exhibition which featured some of these works, alongside works made by five other Australian artists, was staged and documented in a catalogue, also titled *Mapping The Drowned World*. The written content of this research includes several new analyses of *The Drowned World*, critiques of the artworks made as part of this project and works made by other artists, and an original interstitial chapter for the novel which recuperates the only female character in *The Drowned World*.

Together, both the creative and written components of this research contribute new knowledge to three fields: scholarship on J.G. Ballard, including contemporary artworks made in direct response to his stories; the field of critical cartography, both textual and visual; and works which respond to eschatological anxiety.
Mapping
The Drowned World
Introduction:
In the beginning, The End

The world has been ending my whole life.

I’m a Cold War baby. A card-carrying member of Gen-X: a whole generation that thought middle age was one problem we wouldn’t have to face. Never destined to reach 30, we understood that we’d go out in a blaze, not of glory, but of atomic fury when the Cold War finally turned way too hot. R.E.M.’s bouncy (only semi-ironic) 1987 anthem ‘It's the end of the world as we know it (and I feel fine)’ seemed to sum up the spirit of the age. Nuclear Armageddon wasn’t hypothetical, it felt inexorable: not so much a matter of if, but of when.¹

It was around 1987, within the context of this all pervasive climate of eschatological anxiety, that I first read J.G. Ballard's 1962 novel, The Drowned World. To be honest, I cannot recall precisely when I was introduced to the book, I was somewhere between the ages of 19 and 21. It had such a profound effect on my worldview, its images made such a deep impact on my psyche, that it almost feels as if I have always-already had one foot in its damp, post-apocalyptic territory.

In fact, I was raised to have a predilection for post-apocalyptic stories. As far back as I can remember my father was certain that nuclear war was coming. With this in mind, in 1980 he relocated our family from the USA to New Zealand; a destination deemed remote enough (and sufficiently politically insignificant) that it offered some chance, however slim, of surviving the impending conflagration. Eschatological anxiety literally changed my life.

During the late Cold War, as Leonid Brezhnev squared up against Margaret Thatcher and Ronald Reagan in a deadly political pissing contest, nuclear weapons poised, I opened the pages of The Drowned World and felt right at home. Ballard's post-apocalyptic imagery of a submerged city, strangled by vines and patrolled by carnivorous reptiles, a vision of a sweltering inhospitable world in which humanity was on the wane under a relentlessly pulsating sun, felt both realistic and inevitable.

¹ Some of this introduction, including a slightly different version of this paragraph, was first published in: Tracey Clement, ed. Mapping the Drowned World: Six Artists Respond to J.G. Ballard's Novel the Drowned World, first ed. (Rozelle NSW: Sydney College of the Arts, 2015), 27. Indeed, together the three essays I wrote for this catalogue can be read as an earlier (much, much shorter) iteration of this research. Various passages from these essays are woven through this thesis.
Some 30 years later, I have returned to *The Drowned World*, this time driven by a new crisis, climate-change: the slowly unfolding catastrophe that Ballard seems to have predicted in his 1962 novel. As a bridge between the Cold War fears of the recent past and current eschatological anxieties, Ballard’s allegorical work of fiction seemed like a good starting point for coming to terms with the crisis we face.

Titled *Mapping The Drowned World*, this project is driven by the key research question: what can we learn about our world by re-reading, re-writing and re-interpreting *The Drowned World* through the lens of art?

**Mapping Methodology**

The research methodology utilised in *Mapping The Drowned World* is indebted to the 1977 essay, ‘The Death of the Author,’ by Roland Barthes (1915-1980). In this seminal work the French semiotician declared:

> We know now that a text is not a line of words releasing a single ’theological’ meaning (the ’message’ of the Author-God) but a multi-dimensional space in which a variety of writings, none of them original, blend and clash. The text is a tissue of quotations drawn from the innumerable centres of culture.\(^2\)

In this quote Barthes points to two of the key methodological strategies used here. In this research, one novel by Ballard, *The Drowned World*, is interpreted within our current cultural context.\(^3\) And it will be analysed as a stand-alone text, divorced from both the rest of the author’s oeuvre and his own stated aims.

In this research, connections are made between seemingly disparate historical eras (and their attendant philosophies, crises and fears) such as the Enlightenment, the Cold War period, and the present. Lines are drawn between apparently unrelated texts and overlapping territories are identified and charted, all radiating outwards from the fictional landscape of Ballard’s novel, *The Drowned World*.

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\(^{3}\) As someone born, raised, and educated within Western culture, who speaks only English, it is inevitable that this research has been conducted within the context of an Anglophone, Westernised worldview. When I say “our” or “we” I refer to the experiences of those of us who reside within the privileged sphere of the capitalist first world, it would be disingenuous to pretend otherwise.
This kind of theoretical mapping is a standard methodology in literary criticism, cultural theory, recent philosophy and many other forms of contemporary written analysis. But, in *Mapping The Drowned World*, re-reading, re-writing and re-examining Ballard’s novel through drawing and sculpture are integrated into a unique form of analytical cartography: the maps made in this research are both textual and visual and they interact with each other synergistically to generate new knowledge.

In addition, as an investigative, primary research methodology, I invited five other Australian artists to respond to the novel and make new work. The results were shown in the group exhibition which I initiated and coordinated, also titled *Mapping The Drowned World*. Ethics approval was sought and granted and these artists were interviewed to gather their interpretations of the novel.

The findings of *Mapping The Drowned World* have been organised into five chapters.

In Chapter One, ‘The ABCs of The Drowned World,’ the literature relevant to this research is reviewed. *Mapping The Drowned World* is framed within three fields: scholarship on J.G. Ballard, including contemporary artworks made in response to his stories; the field of critical cartography, both textual and visual; and works which respond to eschatological anxiety. In this chapter, gaps are identified in each of these fields that this research is able to contribute new knowledge towards. A brief overview of the mythology surrounding Ballard, his cultural legacy, his extensive oeuvre, and his original art works, is also provided.

In Chapter Two, ‘Mapping The Drowned World,’ Ballard’s novel is positioned as a critique of the Enlightenment that makes many of the same points as Max Horkheimer and Theodor Adorno’s influential text, *Dialectic of Enlightenment*. This argument is supported by, and illustrated with, sculptures made as part of this project, as well as artworks made by the Australian artists Jon Cattapan, Roy Ananda, and Janet Tavener for the group exhibition, *Mapping The Drowned World*. Some of their insights into *The Drowned World* are also woven through this chapter.

Chapter Three, ‘It’s all about Eve,’ includes an interstitial chapter 3.5, a kind of re-writing of the novel undertaken as part of this research, in which hidden depths are discovered in the only female character in *The Drowned World*. In this chapter the novel is radically re-interpreted as a utopian vision in which humanity accepts the inevitability of extinction. It is also argued that Ballard offers redemption in the tradition of biblical apocalyptic
narratives, if not a happy ending.

In Chapter Four, ‘Soon it would be too hot,’ similarities are drawn between our two most recent eschatological crises, the Cold War and climate-change. The perennial appeal of post-apocalyptic narratives is explained and narrative is positioned as an epistemological system that, it is argued, should include the ineffable language of art. The ability of art to function as a knowledge generating system with two modes, making and viewing, is demonstrated using as examples maps made as part of this research in response to The Drowned World. And finally, it is argued that making art is a valid response to any eschatological crisis.

In Chapter Five, ‘The ruined city,’ Ballard’s use of the image of a devastated metropolis is discussed, and the intertextual, post-apocalyptic geography of The Drowned World is shown to currently be the location of several real ruined cities: Hiroshima, New Orleans and Pripyat. It is argued that the ruined city is a potent symbol, a kind of memento mori that warns of the dangers of an anthropocentric worldview. Using artworks made as part of this research as examples, alongside those made by the international artists Cheng Dapeng, Charles Simonds, Anselm Kiefer and Peter Root, it is demonstrated that sculptures in the form of ruined scale-model cities are a particularly powerful way to convey this message, not only in the context of our current eschatological crisis, but in any that may follow.

Destination Drowned World

I first read The Drowned World more than three decades ago. Ballard’s potent imagery of a ruined city changed my world-view. Thanks to this slim sci-fi novel, I have known my entire adult life that humanity may indeed self-destruct, but with patient omnipotence the rest of the natural world will somehow survive. I also learned that knowledge comes in many guises: stories are important and images are powerful. I firmly believe that contemporary art is a narrative language that can create and disseminate knowledge. Like literature, art can tell stories.

In the concluding paragraph of ‘The Death of the Author’ Roland Barthes emphasised the importance of the reader over that of the writer, saying:
[A] text is made of multiple writings, drawn from many cultures and entering into mutual relations of dialogue, parody, contestation, but there is one place where this multiplicity is focused and that place is the reader, not, as hitherto said, the author. The reader is the space on which all the quotations that make up a writing are inscribed without any of them being lost; a text's unity lies not in its origin but in its destination.¹

Yet readers come and go and all interpretation is contingent on its context: this destination is never final. Nevertheless, let's take a trip through The Drowned World and see what we can learn about our world.

¹ Barthes, "The Death of the Author," 148.
Chapter One:  
The ABCs of The Drowned World

The catalyst for this research is pin-point specific: J.G. Ballard’s 1962 novel, *The Drowned World*. But as a project undertaken in the context of contemporary art, it necessarily branches outwards very quickly. After all, what art does at its best is address the human condition, a very broad field of enquiry indeed. As a result, the literature reviewed may seem heterogeneous and the terrain covered is vast. Clearly some parameters and definitions are in order.

The research undertaken as part of this project, *Mapping The Drowned World*, starts with the key question: what can we learn about our world by re-reading, re-writing and re-interpreting *The Drowned World* through contemporary art? And it contributes new knowledge to three distinct, yet interconnected, fields. The first is composed of the vast amount of literary criticism already extant on J.G. Ballard and his oeuvre, as well as the much smaller number of artworks that respond directly to his stories. The second is the field of critical cartography, as made manifest in both written texts and visual artworks. The third area encompasses work that responds to recent eschatological crises.

What follows is a kind of ABC guide to the complex territories mapped in this research.

A is for art (obviously). But we should start at the beginning…

B is for Ballard

Only a handful of authors have such distinctive style and vision that their work enters the popular lexicon as a word. Think Homeric, Shakespearean, Joycean, Kafkaesque and Ballardian:

**Ballardian (bælˈɑːdɪən)**
Definitions
adjective
1. of James Graham Ballard (1930–2009), the British novelist, or his works
2. resembling or suggestive of the conditions described in Ballard's novels and stories, esp dystopian modernity, bleak man-made landscapes, and the psychological effects of technological, social or environmental developments

For Scottish independent Ballard scholar David Pringle, author of the first monograph on Ballard, *Earth is the Alien Planet: J.G. Ballard's Four-Dimensional Nightmare*, the phrase encompassed a wide range of everyday images that “once seen through Ballard's eyes” become forever Ballardian:

I am referring, of course, to such things as concrete weapons-ranges, dead fish, abandoned airfields, radio telescopes, crashed space-capsules, sand dunes, empty cities, sand reefs, half-submerged buildings, helicopters, crocodiles, open-air cinema screens, jewelled insects, advertising hoardings, white hotels, beaches, fossils, broken juke-boxes, crystals, lizards, multi-storey car-parks, dry lake-beds, medical laboratories, drained swimming pools, mannequins, sculpture gardens, wrecked cars, swamps, motorway flyovers, stranded ships, broken Coke bottles, bales of rusting barbed wire, paddy fields, lagoons, deserts, menacing vegetation, high-rise buildings, predatory birds, and low-flying aircraft.

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3 Ibid., 15-16.
Pringle went on to ask, “What do all these heterogeneous properties have in common?” His answer, “They are all Ballardian”, is undeniably true. Ballard’s particular way of seeing the world has seeped into the public consciousness, permeated pop culture, and shaped the perceptions of many people. Ballard’s status as a cult figure was confirmed in 1984 when he became the subject of a monograph edited by V. Vale, founder of Re/Search publications in San Francisco and purveyor of all things cult-y, kinky and cool. By 2011, Jeannette Baxter and Rowland Wymer were able to convincingly argue in their introduction to the collection of essays, *J.G. Ballard: Visions and Revisions*, that his sphere of influence had well and truly breached the borders of mainstream culture and could be found not only in literature, but also in film, music, architecture, in how we watch TV, and in contemporary art.

**J.G. Ballard man and myth**

Although Ballard the man is not the subject of this research, his personal history contributes to the mystique surrounding him and adds to his magnetic appeal. It is worth sketching in the basic mythology here. In brief, James Graham Ballard was born in 1930 to expatriate English parents living in Shanghai. During World War II, between 1942-45, he was interned in China in a Japanese prisoner of war camp, an experience which he reimagined in his semi-autobiographical novel, *Empire of the Sun*, 1984. He moved to England after the war, started (but didn’t finish) medical school, flew planes for the Royal Air Force in Canada, returned to England, married young and had three children. His wife Mary died suddenly of pneumonia and Ballard

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4 Ibid., 16.
became a single father who raised his children in a suburban home in Shepperton where he lived and worked most of his adult life.  

![Figure 2: J.G. Ballard in front of his Project for a New Novel collages, 1960. Image courtesy: J.G. Ballard Estate.](image)

In 1956 Ballard’s first short story was published in *New Worlds* magazine, a highly influential proponent of ‘New Wave’ British sci-fi which Ballard was closely associated with in the 1950s and 1960s. Between 1956 and his death in 2009, Ballard published 20 novels, 98 short stories, numerous editorials, catalogue essays and other opinion pieces. In 2012, Simon Sellars and Dan O’Hara released *Extreme Metaphors*, a selection of 44 of Ballard’s interviews from 1967 to 2008. His entire range of short stories is available in *J.G. Ballard: The Complete Short Stories*.  

To say that Ballard was extraordinarily prolific is an understatement and his oeuvre is notoriously varied. In fiction alone it oscillates wildly between his contributions to ‘New Wave’ British sci-fi; *The Drowned World*, 1962, and other early post-apocalyptic

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8 The details of Ballard’s life are well known, and much recounted, but the timeline here is a good place to start: Jeannette Baxter and Rowland Wymer, eds., *J.G. Ballard: Visions and Revisions* (Basingstoke: Palgrave Macmillan, 2011), xv-xvii.
9 ‘Prima Belladonna’ is usually named as Ballard’s first published short story and it is often claimed that it was published in *New Worlds*, but it was actually published in *Science Fantasy*. However Ballard did also publish the story ‘Escapement’ in 1956 in *New Worlds*. Purists note that while he was still a student his story ‘Violent Noon’ was published in 1951 in *Varsity*, the Cambridge student newspaper. J.G. Ballard, *J.G. Ballard: The Complete Short Stories*, first ed. (London: Flamingo, 2001), 1187; Rick McGrath, "In the Beginning... The Violent Noon," http://www.jgballard.ca/uncollected_work/violent_noon.html.
visions of the future; *The Atrocity* Exhibition, 1970, and other efforts in radical short fiction; *Crash*, 1973, an experiment in technophilic porn; his meditations on the dystopian present such as *High Rise*, 1975, and *Kingdom Come*, 2006; and his most conventional novel, *Empire of the Sun*, 1984, which even gained widespread mainstream readership and won major literary prizes.12

Ballard has been described, among other things, as “the seer of Shepperton”,13 a “poet of death”14 and “the most reluctant of messiahs”.15 Ballard’s own obsessiveness16 is echoed in the obsessive devotion of his wide range of fans, a diverse group which includes sci-fi geeks, self-styled Ballard experts and university sanctioned academic scholars.

Which is not to say that Ballard doesn’t have his detractors. Critics who admire Ballard spend a great deal of time defending him against those who don’t. An example that gets quoted (and refuted) frequently is English critic Duncan Fallowell’s particularly vitriolic 1977 review of Ballard’s collection of short stories, *Low-Flying Aircraft*. Fallowell berated Ballard for being a “prophet of doom” who himself profits from his visions of catastrophe and encourages others to wallow in fantasies of disaster.17

Fallowell also accused Ballard of creating poorly sketched, one-dimensional, sexist characters utilising prose that is conventional at best. American author H. Bruce Franklin concurred in his 1979 essay, ‘What Are We to Make of J.G. Ballard’s

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17 Duncan Fallowell, "Ballard in Bondage," *Books and Bookmen* (1977): 60. Franklin also used this phrase but in a less pejorative context saying that Ballard is “the most eloquent and imaginative of the prophets of doom”. H. Bruce Franklin, "What Are We to Make of J.G. Ballard's Apocalypse?,” in *Voices for the Future: Essays on Major Science Fiction Writers Volume Two*, ed. Thomas D. Clareson (Bowling Green University Popular Press: Bowling Green, Ohio, 1979), 86.
Apocalypse?’ and in this text he became one of the few critics who has challenged Ballard on his “disgustingly racist” imagery.\textsuperscript{18} They both make some valid points.

Even his admirers admit that crafting sympathetic, well rounded characters is not Ballard’s forte.\textsuperscript{19} In fact, the blatant, unapologetic sexism and racism that weaves an insidious undercurrent through Ballard’s stories is troubling. And while several of Ballard’s champions do acknowledge this toxic content, they tend to move on quickly, refusing to be side-tracked.\textsuperscript{20} However, Ballard’s prejudices do warrant discussion and they will be addressed in my analysis of \textit{The Drowned World} in Chapters Two and Three.

Between them, Ballard’s avid admirers and harsh critics have written at least 20 monographs on the author and more than 170 book chapters, essays and articles.\textsuperscript{21} So the obvious first challenge facing anyone reviewing the literature on Ballard is how to narrow down this field. Rick McGrath (a Canadian ex ad-man, dedicated Ballard fan and man behind \textit{The Terminal Collection},\textsuperscript{22} an extensive and extremely useful online depository for all things Ballardian) claimed in a 2011 review of yet another monograph on the author that the key scholars are “Ballard’s critical quartet of Luckhurst, Gasiorek, Baxter and Oramus.”\textsuperscript{23} In the following section I will examine monographs by these four authors as well as David Pringle’s seminal publication, which cannot be ignored, and Peter Brigg’s concise and perceptive effort.

\textbf{The Big B Theory}

David Pringle’s monograph, the first of the six discussed here, was published in 1979. The last, Jeannette Baxter’s, came out in 2009. When they were writing these books Pringle was a librarian in Leeds and Reviews Editor for the academic journal

\textsuperscript{18} “What Are We to Make of J.G. Ballard’s Apocalypse?,” 98.
\textsuperscript{19} Pringle discusses the limitations of Ballard’s characters in some depth in his third section. Pringle, \textit{Earth Is the Alien Planet: J.G. Ballard’s Four-Dimensional Nightmare}, 6, 37-51. Other critics make this same point, for example see: Delville, \textit{J.G. Ballard}, 5. Fallowell, “Ballard in Bondage,” 59.
\textsuperscript{20} For example, Pringle concludes, without a hint of judgement, that if Ballard is racist and sexist he is also equally classist and it is all likely due to his upbringing. Luckhurst concurs. Pringle, \textit{Earth Is the Alien Planet: J.G. Ballard’s Four-Dimensional Nightmare}, 44-46. Luckhurst, \textit{The Angle between Two Walls: The Fiction of J.G. Ballard}, 49.
Foundation; Peter Brigg was teaching at a Canadian University; and Luckhurst, Gasiorek, Oramus and Baxter were all teaching at Universities in England. What links these authors across both time and space, aside from their obvious interest and delight in both Ballard and his work, is the fact that they have all attempted to come up with what I’m calling ‘a big Ballard theory of everything,’ or Big B Theory for short. In other words, in these monographs each author attempts to develop a theory capacious enough to contain everything Ballard has ever written.

At one extreme, in Earth is the Alien Planet, David Pringle attempted to slot all of Ballard’s fictional works from 1956 to 1979 into what he called the “fourfold symbolism.” Pringle’s four “elemental” categories also embodied broad notions of time: water/past, concrete/present, sand/future and crystal/eternity. This analysis attempted to force an already large and very complex body of work into very tight boxes. Ballard’s oeuvre is not so easily constrained and even Pringle was forced to admit that it was, ultimately, an impossible task. At the other extreme, writing nearly 20 years after Pringle and faced with an even larger and more diverse body of work, Roger Luckhurst’s 1997 Big B Theory is incredibly loose.

In The Angle between Two Walls: The Fiction of J.G. Ballard, Luckhurst argued that the major characteristic of Ballard’s work was its “irreducible core of unreadability.” By this he seemed to mean that the texts are slippery and precocious, unwilling to be ossified into stable and solitary meanings. His ultimate conclusion was that Ballard is impossible to pin down. Or, more precisely, the only way to actually grasp his oeuvre is to resort to stating the obvious, as American sci-fi author Harlan Ellison did in 1967 when he said that Ballard seemed to him “to write peculiarly Ballardian stories.” Luckhurst agreed. “Tautology is the only way to determine this object,” he said,

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24 When they were writing in the late 1970s, mid 1980s, late 1990s and mid 2000s respectively, David Pringle was a librarian in Leeds and Reviews Editor for the academic journal Foundation; Peter Brigg was teaching classes on drama, the modern novel and science fiction at the University of Guelph in Ontario; Roger Luckhurst was teaching 19th and 20th century literature and literary theory at Birkbeck College, University of London; Andrzej Gasiorek was a Reader in 20th century English Literature at the University of Birmingham; Dominika Oramus was an Assistant Professor in the Institute of English Studies, University of Warsaw; and Jeannette Baxter was both studying for her PhD and teaching at the University of East Anglia. Information sourced from book jackets and/or author webpages.

25 This is the subject of his entire second section, titled ‘The Fourfold Symbolism.’ Pringle, Earth Is the Alien Planet: J.G. Ballard’s Four-Dimensional Nightmare, 15-36.

26 Pringle admitted, “very few of his stories contain just one symbol or one system of symbols.” Ibid., 29.


28 Ibid., 152.
“Ballard writes Ballardian texts.”  

Seemingly incontrovertible, this Big B Theory is as difficult to disprove as it is dissatisfying.

In 1985, in between these two extremes, Peter Brigg offered a relatively modest all encompassing theory in his monograph J.G. Ballard. He summed up Ballard’s overarching project by saying, “he seeks to identify things (and people made into things by the media) as external representations of the inner map of the contemporary psyche.”

In his 2005 book, also titled J.G. Ballard, Andrzej Gasiorek echoed this analysis and placed particular emphasis on what he called Ballard’s cryptography.

The title of Dominika Oramus’s 2007 monograph, Grave New World: The Decline of the West in the Fiction of J.G. Ballard, neatly sums up her thesis. Her Big B Theory is that Ballard charts the psychological effects of the inevitable decline of post-war Western culture. Written at the same time, but not published until 2009, Jeannette Baxter examined the broadest range of Ballard’s writing, including his non fiction, in her book, J.G. Ballard’s Surrealist Imagination: Spectacular Authorship. She also placed his work firmly in a post-war context and asserted that Ballard was a political artist, specifically a “radical Surrealist historiographer.”

All six of the Big B theorists discussed here, starting with Pringle, emphasised Ballard’s obsession with charting complex psychopathologies; the machinations of what he called “Inner Space,” as well as his debt to art, especially Pop Art and Surrealism. And, according to the man himself, they are right. In numerous essays

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29 Ibid.
30 Brigg, J.G. Ballard, 12.
31 Andrzej Gasiorek, J.G. Ballard (Manchester: Manchester University Press, 2005), 15. He also used the metaphor of cartography. I utilise both metaphors in later chapters.
33 This phrase was the title of Ballard’s first editorial for New Worlds, 1962, a polemic outlining what sci-fi could, and should, do. According to Ballard its mission was explore the inner workings of the mind and the problems of contemporary life, rather than the imaginary reaches of a distant outer space. It’s quoted by nearly all Ballard theorists, but for a good discussion of the phrase, which Ballard lifted from JB Priestly, see: Colin Greenland, "The Works of J.G. Ballard," in The Entropy Exhibition: Michael Moorcock and the British "New Wave" in Science Fiction (London: Routledge & Kegan Paul 1983), 51-53.
and interviews, as well as in his 2008 autobiography, *Miracles of Life*, Ballard acknowledged these twin inspirations.\(^{34}\)

In terms of this project, the hypotheses of Brigg, Gasiorek, Oramus and Baxter have some merit. But the aim of this research is not to develop a theory large enough or flexible enough to be applied to everything Ballard ever wrote. Nor am I concerned with excavating a stable ‘truth’ or attempting to unearth clues as to the author’s intentions. As outlined in the introduction, the research methodology used here taps into the notion that the author doesn’t get the final word, as argued by Roland Barthes in ‘The Death of the Author.’\(^{35}\)

By focusing on just one novel by Ballard, *The Drowned World*, I will avoid the pitfalls (experienced by the six authors discussed above) of attempting a Big B Theory, as well as side-step the mesmerising pull of Ballard the cult figure and the seductive sensory overload of total immersion in the Ballardian world view.

**Another world, *Brave New World* or the end of the world?**

Ballard scholars spend an inordinate amount of time trying to wrest the writer out of the sci-fi ghetto. Speaking as if the genre was a nasty and sticky substance, Luckhurst in particular seemed anxious about issues of categorisation. He said that a catastrophe “appears to await those wishing to claim for Ballard the status of a ‘major’ writer: the catastrophe of the glutinous adherence of his name to the ‘popular’, the generic: science fiction.”\(^{36}\) And while the machinations of genre politics in academia and elsewhere are not a concern here, it is worth taking the time to place *The Drowned World* in the appropriate literary context. Is Ballard describing another

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34 J.G. Ballard, *Miracles of Life: Shanghai to Shepperton an Autobiography* (London: Harper Perennial, 2008). Examples are numerous, but here are two: “Freud’s serene and masterful tone, his calm assumption that psychoanalysis could reveal the complete truth about modern man and his discontents, appealed to me powerfully… At the same time, the surrealists’ rejection of reason and rationality, their faith in the power of the imagination to remake the world, resonated strongly with my efforts as a novice writer.” (134). Referring to the seminal 1956 Pop Art show at Whitechapel Gallery, Ballard said, “The overall effect of *This is Tomorrow* was a revelation to me, and a vote of confidence, in effect, in my choice of science fiction.” (188).


36 Luckhurst, *The Angle between Two Walls: The Fiction of J.G. Ballard*, 2. In fact, the anxiety is his own. Luckhurst spends the entire first chapter of his book wrangling with what he sees as the problem of science fiction as a genre, and how Ballard may, or may not, fit into it. But he is not alone. For example, Pringle also claims that Ballard “succeeded in transcending” sci-fi. Pringle, *Earth Is the Alien Planet: J.G. Ballard’s Four-Dimensional Nightmare*, 3.
world, a *Brave New World* or the end of the world? Is the novel a work of sci-fi, a dystopia or an apocalyptic tale?

The answer is relatively simple. Broadly speaking *The Drowned World* can be categorised as a work of sci-fi. This was undoubtedly the milieu Ballard was working in at the time.  But there is more ‘fi’ than ‘sci’ in his novel. The phrase speculative fiction, which was suggested as an alternative as early as the 1940s by American sci-fi author Robert A Heinlein, might be more accurate and is certainly less emotive. Nevertheless, Ballard was not offended by the phrase sci-fi and this term will be used in this research.

Although Ballard’s work has received considerable critical attention, up until recently at least, his controversial novel *Crash* (with its subversive erotic mix of automobiles, sex and death) has tended to monopolise the limelight. But lately, more attention is being paid to *The Drowned World* as the realisation dawns that Ballard seems to have predicted climate-change.

In *The Drowned World* the landscape of the planet has been reshaped by rising oceans and shifting silt as a result of natural solar events. Temperatures are steadily increasing and comfortable human existence is only possible at a UN run outpost in Greenland. The loose plot involves the devolution of humanity amidst the ruins of a flooded city (which could be anywhere, but is in fact London). Its imagery is seductive, hallucinatory, compelling and insidious; once read it is impossible to forget.


39 For example, in Rossi’s secondary Ballard bibliography 40 articles have titles which refer to *Crash* explicitly, or implicitly by references to automobiles etc., while only seven have titles which refer to *The Drowned World*. Rossi, "J.G. Ballard Secondary Bibliography," 185-98. Admittedly, much of the interest in *Crash* can also be attributed to Cronenberg’s 1996 movie of the same name. Now that *High Rise* has been made into a much hyped movie by dir. Ben Wheatley we will no doubt see a resurgence of interest in that novel. It is my solemn wish that *The Drowned World* is never made into a film.
In 2011, *The Drowned World* was included as part of the “prehistory” of the climate fiction (cli-fi) genre\(^{40}\) in Adam Trexler and Adeline Johns-Putra’s survey of Anglophone fiction, ‘Climate Change in Literature and Literary Criticism.’\(^{41}\) And there is no doubt that Ballard’s novel can be read as both a prescient sci-fi vision of climate-change\(^{42}\) and as a precursor of cli-fi.

Now to eliminate what the novel is not. Even though Ballard is thought of as a writer of dystopian fiction and the phrase Ballardian evokes a grim dystopian take on society, a survey of literature on the genre quickly makes it obvious that *The Drowned World* is *not* a dystopia. In her contribution to the book *The Utopian Fantastic*, Scottish author Sharon Stevenson offers a clear definition:

> A dystopia then is more than a bad place; it is a familiar, yet unfamiliar, malevolent place where good or at least average people suffer deprivation of basic freedoms required to be fully human, and this suffering occurs at the hands of a faceless system, either social or governmental or both, that is beyond the protagonists’ power to control or change.\(^{43}\)

Two excellent introductions to the genre clarify the point. In his *Dystopian Literature: A Theory and Research Guide*, Professor of English at the University of Arkansas M. Keith Booker clearly explains, “in general dystopian fiction differs from science fiction in the specificity of its attention to social and political critique.”\(^{44}\) In their introduction

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to the book they co-edited, *Dark Horizons: Science Fiction and the Dystopian Imagination*, Raffaella Baccolini, from the University of Bologna, and Tom Moylan, from the University of Limerick, concur by pointing out that in a dystopian story the central character begins content within a hegemonic order, but then becomes dissatisfied. In other words, according to these scholars, it takes more than things going a bit pear-shaped to make a scenario dystopian; it has to be infused with the distinctive whiff of totalitarianism. Because of this, *The Drowned World* eludes classification as a dystopia.

In *The Drowned World* the streets of a major metropolis are flooded and transformed into fetid lagoons patrolled by carnivorous reptiles. Skyscrapers are semi-submerged and strangled by vines and a huge pulsating sun beats relentlessly. It’s a catastrophe of global proportions, an inexorable disaster: the end of the world. The novel is post-apocalyptic.

**A is for art**

In *Mapping The Drowned World* Ballard’s post-apocalyptic novel has been explored through an integrated three-part methodology: a process of re-reading, re-writing, and re-interpreting through the hands-on investigation of a contemporary art practice. And not only have I made artworks which respond directly to the novel, as part of this research I also initiated a group exhibition in which five other Australian artists were asked to do the same.

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45 Baccolini and Moylan divide the genre into many subcategories including classic dystopias which are unrelentingly grim (typified by works such as Huxley’s *Brave New World* and Orwell’s *Nineteen Eighty-Four*) and critical dystopias (a phenomenon they say emerged in the 1980s) which offer some hope. Raffaella Baccolini and Tom Moylan, "Introduction: Dystopia and Histories," in *Dark Horizons: Science Fiction and the Dystopian Imagination*, ed. Raffaella Baccolini and Tom Moylan (New York and London: Routledge, 2003), 4-8.

46 In fact, Ballard’s first four novels are all post-apocalyptic. His other three early novels are: *The Wind from Nowhere*, 1962, in which an inexplicable ferocious wind causes international turmoil and then stops suddenly; *The Drought*, 1965, in which man-made pollution has caused climate-change and global drought ensues; and *The Crystal World*, 1966, in which both flora and fauna are transformed into colourful glittering gems, as dangerous as they are beautiful. Collectively they are frequently referred to as Ballard’s ‘disaster quartet’. This oft quoted phrase was possibly coined by Brigg in the title of his Chapter 3, ‘The Global Disaster Quartet.’ Brigg, J.G. Ballard, 43. *The Drought* was first published in 1964 in the USA under the title *The Burning World*. Those who study Ballard will notice that publication dates for his early novels seem fluid. The dates used here are from the earliest and most forensically detailed Ballard bibliography: James Goddard and David Pringle, eds., *J.G. Ballard: The First Twenty Years* (Hayes: Bran’s Head Books Ltd, 1976), 82-84.
To understand the contribution of this primary research to the field it is worth examining Ballard’s well documented interest in art, as well as briefly reviewing the work of other contemporary artists who have taken inspiration from him.

Ballard is a writer of remarkable visual dexterity. Many critics have noted the richness of his imagery and his affinity with art, specifically Surrealism and Pop Art. Pringle noted, “Ballard is a writer who is drawn to visual symbols, an author with a painter’s eye rather than a poet’s tongue”.\(^{47}\) Brigg said that Ballard’s writing “derived in part from the transfer of surrealism from the painter’s canvas to the printed page”.\(^{48}\) Colin Greenland, a critic whose work will be discussed in more depth in the next section, concurred saying that Ballard’s meticulous style “proclaims his hand no less distinctly than a name signed in the bottom right-hand corner of a canvas”.\(^{49}\)

Ballard himself admits that at one stage he thought he would like to be a painter, but he found that he was better at conjuring images with words than with brushes.\(^{50}\) “I think I always was a frustrated painter,” he said in a 1975 interview. “They are all paintings, really, my novels and stories.” The author even went so far as to declare, “When I start painting I shall stop writing!”\(^{51}\)

Although Ballard never gave up writing, he did produce some actual works of visual art alongside his visually dense texts. In addition to collages, an unrealised billboard project, pseudo advertisements and his typographically arresting micro-stories, (figs. 2, 18-20) Ballard occasionally used the gallery as a laboratory in which to experiment with literary ideas. This strategy can be seen in the 1970 performance piece he organised in which a stripper performed to the reading of a scientific paper. For Ballard, it was “an example of the fusion of science and pornography that The Atrocity Exhibition expected to take place in the near future.”\(^{52}\)

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\(^{48}\) Brigg, *J.G. Ballard*, 110.


\(^{52}\) Her stage name was Euphoria Bliss (fig. 21). Ballard, *Miracles of Life: Shanghai to Shepperton an Autobiography*, 210.
In 1970 Ballard decided to stage an exhibition of crashed cars in order to test a hypothesis he was formulating about the unconscious erotic potential of the automobile collision. Three mutilated vehicles were displayed like sculptures at the New Arts Laboratory in London and Ballard hired a topless woman to interview visitors (fig. 3). According to Ballard, the response was overwhelmingly negative and the already damaged cars were vandalised. “There was a huge tension in the air,” he said, “as if everyone felt threatened by some inner alarm that had started to ring.”

Encouraged by the outrage caused by this exhibition, which Ballard described as “a psychological test disguised as an art show,” the writer began work on his novel *Crash*. Ballard’s *Crash* started as an exhibition, then became a novel in 1973. In 2010 it went full circle and became an exhibition again. *Crash: Homage to J.G. Ballard* at the Gagosian Gallery in London (fig. 22) focused on Ballard as both artist and muse.

This impressive group show was the second of two major international exhibitions to

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53 Ibid., 239-40.
54 Ibid., 240, 41.
55 Mark Francis and Kay Pallister, eds., *Crash: Homage to J.G. Ballard*, first ed. (London: Gagosian Gallery, 2010). The exhibition was held 11 Feb – 1 April 2010 at Gagosian Gallery, London. Of course *Crash* was also made in to a film by David Cronenberg in 1996.
date which have focused on Ballard. The first, *J.G. Ballard: Autòpsia del nou Millenni*, (fig. 23) was held at the Centre de Cultura Contemporània de Barcelona (CCCB) in 2008.  

Both exhibitions tended to feature works that had Ballardian overtones (pieces evocative of Ballardian themes or depicting Ballardian imagery) rather than artworks which were inspired directly by a particular piece of his writing.

![Image](image.png)

*Figure 4: Ann Lislegaard, Crystal World (after J.G. Ballard), 2006, 2-channel 3D animation, two leaning screens. Image courtesy: Astrup Fearnley Museet.*

There are some exceptions in both shows. At the CCCB, Norwegian-born artist Ann Lislegaard, who has made several videos which respond to sci-fi novels, presented *Crystal World (after J.G. Ballard)*, 2006, a moody, two-channel black and white animation which utilised some text from the novel among other literary and artworld references (fig. 4).  

For her photographs, *Future Ruins*, 2007, (fig. 24) English artist Michelle Lord created small-scale replicas of piles of defunct consumer goods and shot them against models of locations in Birmingham, UK, where she lives. Lord

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56 Costa, J.G. Ballard: Autòpsia Del Nou Millenni, 239-40. The exhibition was held 22 July – 2 November 2008 at Centre de Cultura Contemporània de Barcelona.

57 This work was created for the 2006 Sao Paulo Biennale. An excerpt can be watched here: https://www.youtube.com/watch?v=CqNV28AK894
drew direct inspiration from Ballard’s novel *Concrete Island* and his story ‘Ultimate City.’

In the Gagosian show, American artists Ed Ruscha and Richard Prince both paid tribute to Ballard’s novel, *Crash*. Ruscha’s painting, *Fountain of Crystal*, 2009, used text lifted directly from the novel (fig. 25) and Prince’s *American/English*, 2009, featured paperback first editions of *Crash*.

Figure 5: Richard Prince, *Elvis*, 2007, steel, plywood, bondo, 160 x 193 x 462.3cm. Image courtesy: Widewalls.

Prince also presented his sculpture *Elvis*, 2007, a car stripped of all utility and reduced to pure fetish which captured the kinky ethos of the novel perfectly (fig. 5). It may or may not have been made as a direct response to the novel, but Charissa Terranova, Associate Professor of Aesthetic Studies at the University of Texas in Dallas, argues convincingly in her 2014 book, *Automotive Prosthetic*, that Ballard and Prince share a “technophilic” sensibility.

English artist Roger Hiorns exhibited *Untitled*, 2009, a car engine encrusted with blue copper sulphate crystals which seemed to be the product of an unholy union between Ballard’s novels *Crash* and *The Crystal World* (fig. 6). In an interview about a similar

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59 She also provides compelling evidence of the artist’s obsession with the writer, citing the fact that Prince fabricated a 1989 interview between Ballard and himself and then used this fictional exchange as a foundational myth in his own autobiographical story. Charissa N. Terranova, "Richard Prince: The Fetish and Automotive Maleficium," in *Automotive Prosthetic: Technological Mediation and the Car in Conceptual Art* (Austin, Texas: University of Texas Press, 2014), 241-42.
work (Seizure, in which the artist grew the same blue crystals over an entire flat and won the 2009 Turner Prize) Hiorns somewhat begrudgingly acknowledges the reference to Crash in his car engine pieces. He admits, “I did read The Crystal World, but actually some time after I’d started working with crystals.”

Figure 6: Roger Hiorns, installation view at the Hammer Museum, Los Angeles, 2003-2004. Photo by Joshua White. This work is very similar to Untitled, 2009.

Figure 7: Jonathan Schipper, The Slow Inevitable Death of American Muscle, 2009, 2 cars, hydraulics, dimensions variable. Image courtesy: X015.

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Jonathan Schipper wasn’t included in *Crash* at the Gagosian, but his work would have been perfect. While the American artist doesn’t acknowledge the influence of Ballard on his website or in interviews, his *Slow Inevitable Death of American Muscle: Slow Motion Car Crash*, a sculpture in which two actual cars crunch into each other in a slow-motion dance of death over an excruciatingly long six days, certainly has Ballardian overtones (fig. 7).

And many more international artists have made works that can be loosely classified as Ballardian, perhaps most notably the Americans Ana Barrado and Robert Smithson.

Barrado’s slightly eerie, sun-saturated, black and white photographs of rocket ships, motorways and crass vernacular architecture have been inextricably linked with the author since they were chosen to illustrate both of V. Vale’s RE/Search publications on Ballard: *J.G. Ballard* (fig. 8), the eclectic 1984 collection of Ballard’s stories, interviews and other ephemera; and the 1990 illustrated and annotated


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61 He was included in a 2012 car-themed show called *Autobody* at Ballroom Marfa, an ex-auto body shop in Marfa Texas, 30 September 2011 – 12 February 2012. The curators of this show cite Ballard as an influence on them. “*Autobody: Featuring North of South, West of East,*” Ballroom Marfa, https://ballroommarfa.org/archive/event/north-of-south-west-of-east/.
edition of his book, *The Atrocity Exhibition*. Her photos were included in *Autopsy of the New Millennium* show at the CCB in the Ballardian Art section.

Robert Smithson’s masterpiece, *Spiral Jetty*, 1970, may be the most famous artwork which is considered to be Ballardian (fig. 9). Israeli writer Haim Finkelstein was the first to convincingly make this argument in his 1987 essay ‘Deserts of Vast Eternity.’ But he didn’t provide evidence that Smithson actually read Ballard. English filmmaker Tacita Dean has a well documented interest in Ballard. Her film *JG*, 2013, (fig. 26) was inspired by her personal correspondence with Ballard on the connection between his short story, ‘Voices in Time,’ 1960, and *Spiral Jetty*.

![Figure 9: Robert Smithson, Spiral Jetty, Rozel Point, Great Salt Lake, Utah, April, 1970. Photo: George Steinmetz, 2002.](image)

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65 More info on this film can be found here: "JG a Film Project by Tacita Dean," Arcadia University Art Gallery, http://gallery.arcadia.edu/jg-tacita-dean-film/.
In addition to these Ballardian works, some artists have also responded directly (or indirectly) to the subject of this research, Ballard’s novel, *The Drowned World*. In early 2017, English artist Gerry Davies exhibited a series of drawings in a solo show titled *Flood Story*. He states that they refer to both Ballard’s fictional prognostications and the realities of climate-change.66 A Google search for the term “drowned world art” offers several more possibilities. Most are not relevant to this research,67 but a few warrant a closer look.

Since 2007, South African documentary photographer Gideon Mendel has been photographing victims of the real drowned world, following major floods around the globe. He describes his ongoing *Drowning World* series, (fig. 27) which features portraits of people semi-submerged in the waters that have claimed their homes, as his “attempt to explore the effects of climate change in an intimate way”.68

Two impressive recent sculptural works are literally submerged, but neither claim a

67 It inevitably leads to British artist Jason deCaires Taylor who is known for sinking concrete sculptural tableaux of people under the water in tropical locations. On the surface, this would seem like a good match for this research. But, strangely, his work is utterly devoid of any Ballardian edge. Nevertheless, for those interested, a good overview of his practice can be found here: Susan Smillie, "Drowned World: Welcome to Europe’s First Undersea Sculpture Museum," *The Guardian*, 3 February 2016. Another show that seems promising, but actually has little to do with Ballard, is *The Drowned World*, 2014, an online exhibition of works by seven Pacific artists living in New Zealand who seem to draw more on their general impressions of water and on the realities of climate change than on Ballard’s vivid prognostications. "The Drowned World," Tautai, http://www.the-drowned-world.com.
direct link with Ballard’s novel. In 2013, Chilean artist Alfredo Jaar represented his country at the Venice Biennale with *Venezia, Venezia*, a scale-model of the giardini complex which would sink below murky green water, then re-emerge every three minutes (fig. 10).²⁶

The second work, *Terra Forming: Engineering the Sublime*, 2013-2015, (fig. 28) was created by the team of Madrid-based British artist Adam Lowe and Professor Jerry Brotton, an English historian of mapping. This sculpture is an exaggerated 3D topographical model of the world which they subsequently flooded. It was first shown in *Anthropocène Monument*, 2014-2015, an exhibition at Les Abattoirs, Toulouse, France, initiated by philosopher Bruno Latour and sociologist Bronislaw Szerszynski.⁷⁰ Both of these works draw on the conceptual resonance of both mapping and architectural scale-models, topics which will be discussed in more depth in Chapters Four and Five.

Closer to home, Australian painter Jon Cattapan has been making work that has a synergistic relationship with *The Drowned World* since 1991. This can been seen specifically in his ongoing series, *The City Submerged*.


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Considering the richness of his imagery and the complexity of his ideas, it is not surprising that Ballard’s works have inspired artists. What is surprising is that despite the vast number of monographs and essays on his work as a writer, little in-depth research has been done on the direct impact of his fiction on contemporary art. An even smaller sample of research, including exhibitions and artworks, specifically relates to individual novels or stories, rather than some vague notions of things Ballardian. By producing new artworks, a group exhibition (figs. 11, 47, 48, 50-52) and a catalogue that respond directly to *The Drowned World*, this research goes some way towards remedying this particular gap in the field.

**The End**

The fact that *The Drowned World* is an end of the world tale is central to my reinterpretation of the novel through both written analysis and artworks. Like all post-apocalyptic stories, the end in *The Drowned World* is not really The End; it’s a new beginning.

Any research on post-apocalyptic fiction will locate English literary critic Frank Kermode’s 1967 book, *The Sense of an Ending*.\(^{71}\) This seminal text in the field is routinely cited by scholars exploring the post-apocalyptic genre and this research also relies on his insights.\(^{72}\) Kermode’s analysis draws on a diverse range of secular literary works, from Shakespeare’s plays to the *Naked Lunch* by William Burroughs. He highlights the importance of apocalyptic tales in giving meaning to our lives, thus explaining their perennial appeal.\(^{73}\)

Kermode’s key argument is that literature structures time into past, present and future. In this way, it is a system for making sense of the world that is no less valid than theology, history or science. For him, these other epistemological disciplines are just

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as fictional as literature. This is the most important point he makes, in terms of this research, and it will be discussed again later.

In her 2008 book *Apocalyptic Transformation*, which owes much to Kermode, American cultural and literary theorist Elizabeth Rosen analyses a range of secular, postmodern apocalyptic stories, primarily from the realm of pop culture. The salient point that she makes for this research is that even secular post-apocalyptic stories fulfil the same role as their biblical counterparts: they act as warnings, while simultaneously offering both hope and redemption.

In my analysis of *The Drowned World*, I argue that Ballard is indeed writing in this traditional apocalyptic mode; he offers both redemption and a certain kind of hope, perhaps more relevant now than ever before. My two intertwined findings are that *The Drowned World* can be read as a critique of the Enlightenment, every bit as perceptive and much more easily understood than Max Horkheimer and Theodor Adorno’s more academically respected book, *Dialectic of Enlightenment*; and that by picturing a world in which humanity becomes inseparable from the rest of nature and ultimately perishes, Ballard’s novel can be read as a kind of utopian vision.

**Darkness in the light**

The European Enlightenment is a complex and temporally fluid era, and pinning it down is beyond the scope of this research. The interest here is in a critique of its negative ramifications as outlined by Horkheimer and Adorno. *Dialectic of Enlightenment* was written while these members of the Frankfurt School of critical theory were in exile from the Nazis. It was first published in 1944 under the title *Philosophische Fragmente*. The first English translation (by John Cumming) was published in 1972. *Dialectic of Enlightenment* is a key text in this research. But the

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74 Ibid., 64.
76 These include Alan Moore’s graphic novels, Terry Gilliam’s cult movies and the wildly successful *Matrix* trilogy by the Wachowski brothers (now sisters). When she wrote this book Rosen was an Assistant Professor at Lafayette College, Pennsylvania.
77 This is basically her whole thesis, but she says so very clearly in her introduction and epilogue. Rosen, *Apocalyptic Transformation: Apocalypse and the Postmodern Imagination*, xiii, xiv, 177-78.
1990 anthology, *The Enlightenment and Its Shadows*,\(^7^9\) edited by English Literature Professor Peter Hulme and Professor of History Ludmilla Jordanova, both at the University of Essex, also offers invaluable insights into the dark side of the era.

Horkheimer and Adorno’s *Dialectic of Enlightenment* highlights the futility of attempting to dominate nature: the failure of civilization in general, and of rationality and science in particular. Each of the Ballard critics already mentioned (Luckhurst, Gasiorek, Baxter, Oramus, Pringle and Brigg) make at least one of these points. And they are joined by several others, such as English sci-fi author Colin Greenland, who devoted a chapter to Ballard in his 1983 book on New Wave sci-fi, *The Entropy Exhibition*,\(^8^0\) and American History Professor Lorenz J. Firsching, who, in his 1985 essay ‘J.G. Ballard’s Ambiguous Apocalypse,’ placed particular emphasis on the city in *The Drowned World* as a symbol of the failure of civilised society.\(^8^1\) However, they do not explicitly characterise *The Drowned World* as a critique of the Enlightenment, nor do they go so far as to compare it to Horkheimer and Adorno’s effort.

In his 1998 book, yet another monograph titled *J.G. Ballard*, Belgian critic Michel Delville does overtly link what he calls Ballard’s “social critique” to the *Dialectic of Enlightenment*. However, while Delville posits that Ballard’s entire oeuvre is a critique of the Enlightenment in that it echoes Horkheimer and Adorno’s warning against totalitarianism and the repression of the individual,\(^8^2\) I argue that *The Drowned World* is more explicitly critical of the will to dominate nature which, according to Horkheimer and Adorno, was sanctioned and institutionalised during that era.\(^8^3\)

Which begs the question, what exactly is nature? In her own critique of the Enlightenment, the 1995 book *What Is Nature?*, English philosopher Kate Soper points out that there is nothing natural about what we think of as nature. Echoing Horkheimer and Adorno who said, “In thought, human beings distance themselves

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\(^8^3\) This is a key thesis of their first chapter. "The Concept of Enlightenment," 1-34.
from nature in order to arrange it in such a way that it can be mastered," Soper argues that discourse on nature is an anthropocentric social construct. And she points out that inherent in all notions of nature, even those espoused by those with ‘green’ agendas, is an implicit human/nature dichotomy. For Soper, our relationship with nature is something of a conundrum; even as we try to picture ourselves as part of nature we do so from a position of perceived otherness. “Nature is that which Humanity finds itself within, and to which in some sense it belongs,” she says, “but also that from which it also seems excluded in the very moment in which it reflects upon either its otherness or its belongingness.” We are both part of nature and outside it. The old Enlightenment dichotomy of nature vs. culture is still in play today, and, as will be demonstrated in Chapter Two, the dangers of this adversarial attitude are illustrated in The Drowned World.

Soper argues that while our conception of nature may indeed be a problematic cultural construct and not ‘natural’ at all, nevertheless, nature, as in the natural world, does exist in a ‘real’ sense and we must acknowledge this if we are to have any chance at all of examining and rectifying our exploitation of it. This conception of nature as the elemental forces and myriad occupants (animal, vegetable, viral, bacterial and fungal) of a ‘real’ natural world is what is encompassed by the term ‘nature’ in this research.

Any reading of The Drowned World as a critique of contemporary culture (and by extension the Enlightenment) inevitably focuses on the character of Strangman. Generally this bizarre and malevolent figure is interpreted as a symbol of civilisation, its attendant ills, and its futility. I concur. Michel Delville and Jeannette Baxter beg to differ. Delville identifies Strangman with “primitive savagery” and argues that “he embodies the darker implications of the pre-rational realm of the phantasmagoric jungle.” And Baxter describes him as a “Surrealist variation on the Situationist ‘radical subject’”.  

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86 Capitalisation in original text. Ibid., 49.
87 Ibid., 8.
88 Delville, J.G. Ballard, 8.
This latter interpretation in particular will be strongly refuted. In Baxter’s analysis Strangman is something of a prankster-hero who comes along to mix things up, upset the status quo, and provoke radical rethinking. But really he is just a racist psychopath. I argue that Strangman symbolises the dark heart of civilisation; the will to power, the urge to colonise and dominate both territory and people of other races.

An inundated utopia

Having gone to the trouble of establishing that *The Drowned World* is not a dystopia, despite the fact that things have gone horribly wrong for humanity, it may seem counter-intuitive to turn around and argue that it may in fact outline a utopian scenario. However, this is not the first time that this conclusion has been drawn.

Broadly speaking, critics of *The Drowned World* can be divided into two camps: those who see Ballard’s vision of the end of the world as hopelessly nihilistic, and those who do not. In terms of this research the most relevant of these more positive interpretations are the essays which explicitly frame Ballard’s post-apocalyptic vision as utopian, such as: ‘J.G. Ballard and the Transvaluation of Utopia,’ 1991, by American History Professor W. Warren Wagar; ‘The Utopian Disasters of J.G. Ballard,’ 2000, by Leonard Orr, a Professor of English at Washington State University, Vancouver; and ‘Reading Climate Change in J.G. Ballard,’ 2013, by Senior Lecturer in English and journalism at Coventry University, UK, Jim Clarke.

These three essays all reach similar conclusions, and Wagar’s description of Ballard can be used to sum up their findings. “Despite his reputation as a cold-blooded anatomist of disaster and violence,” he says, “he [Ballard] is in fact a visionary, a postmodern utopographer.”

Although this notion of Ballard as a cartographer of utopian landscape may sound radical at first, Wagar, Orr and Clarke all actually subscribe to the conventional view (officially sanctioned by Ballard himself) that the author is exploring ‘inner space,’ the

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90 Those who see Ballard as nihilistic are typified by Franklin, Firsching, Fallowell, and also Oramus. Those who do not include: Pringle, Brigg, Luckhurst, Baxter, Gasiorek, Delville, Greenland and many others.


mysterious realm of the psyche. They tend to conflate the quest for individual redemption and transformation with the utopian impulse. “Ballard suggests that climate change can function as the catalyst for profound personal change,” Clarke says, “a change that can even encompass utopia, if we are prepared to give up everything, including identity and existence, to attain it.”

The conclusion reached through this research is actually far more radical. In Chapter Three I will argue that *The Drowned World* is a utopian vision, not because it imagines a world in which individuals find psychic fulfilment, but because it pictures a world in which humanity and the rest of nature become inextricably entwined at last; a world in which we voluntarily cease to exist in an idealised “non-place.” This last is one of the key definitions of a utopia, as outlined by Portuguese utopian theorist Fatima Vieira in her chapter for *The Cambridge Companion to Utopian Literature*.

In his 2009 essay, ‘Ecocriticism, Humanism, Eschatological Jouissance: J.G. Ballard and the Ends of the World,’ Dutch Professor of Literature Rudolphus Teeuwen comes closest to this analysis, but he stops just short. He acknowledges the interweaving of the utopian and the apocalyptic, but in the end concludes that *The Drowned World* is neither dystopian nor utopian. Teeuwen freely admits that he is not quite ready to abandon the potential of humanism. But others are.

The two texts which proved most useful in formulating an argument for *The Drowned World* as a post-human utopia are at opposite ends of the academic spectrum. The first, *The World Without Us*, 2007, by American journalist Alan Weisman, became an international best seller. The second, *Death of the Posthuman: Essays on Extinction*, 2014, was written by the Australian Claire Colebrook, a Professor at Pennsylvania State University. Both are ‘thought experiments’ which imagine the positive ramifications of human extinction. Like Ballard’s novel, they image a utopian future in which the rest of life on earth flourishes in our absence.

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93 Clarke, “Reading Climate Change in J.G. Ballard,” 16.
C is for critical cartography

In addition to contributing new knowledge to the field of literary criticism on Ballard, the drawings and sculptures made as part of *Mapping The Drowned World*, and the analyses of these works and of sculptures by others, also contribute to the field known as critical cartography.

Broadly speaking, critical cartography is an enquiry into the inherent meanings and creative potential of mapping processes. It developed as part of the postmodern critical turn that gained momentum in the Anglophone world during the 1980s. American geographer Denis Cosgrove (1948-2008), a prolific theorist in the field, explicitly cites J.B. Harley and David Woodward’s multi-volume project, *History of Cartography*, as an important catalyst that prompted a re-examination of the discipline.  

In *History of Cartography* volume one, published in 1987, Harley and Woodward redefined maps: "Maps are graphic representations that facilitate a spatial understanding of things, concepts, conditions, processes, or events in the human world." To the uninitiated, this definition may seem straightforward. But as Cosgrove, then Alexander von Humboldt Professor of Geography at UCLA, explained in the introduction to his 1999 edited anthology, *Mappings*, “The explicit intention of their project was to open the field of cartographic study far beyond a technical and internalist history of what had conventionally passed for a ‘map’, at least in the West”. And in this they were successful.

The history of critical cartography has been well documented, and is largely outside the scope of this research. The salient point for this project is that throughout the 1980s and 1990s cartographers, geographers, literary critics and artists came to

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100 Cosgrove, "Introduction," 3.
realise that maps are neither purely scientific nor neutral, and they never have been. Instead they are inextricably embedded in the cultures that create them; they are inherently political.

Figure 12: Alighiero e Boetti, Mappa, 1990-1991, embroidery on cotton, 114.3 x 214cm. Photo: David Regen.

This precise point has been made by numerous authors. In addition to Cosgrove, those most useful to this research are: French geographer Yves Lacoste who explicitly linked mapping with power and politics in the context of the Vietnam war; American geographer Denis Wood, who, in 1992 while he was a Professor of Design and Landscape Architecture at North Carolina State, produced a book and an exhibition titled The Power of Maps; Jerry Brotton, English Professor of Renaissance Studies at Queen Mary, University of London, whose 2012 book, A History of the World in Twelve Maps, and BBC series of the same year, Mapping the World: The Story of Cartography, from Rock Art to Google Earth, clearly outline the hidden agendas of maps throughout the ages; and Linda Williams from RMIT in

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102 The intersection of power, politics and maps was also the subject of the 2010 exhibition Magnificent Maps: Power, Propaganda and Art at the British Library, London.
Melbourne, who also makes some interesting points about cities in her 2014 essay, ‘Reconfiguring Place: Art and the Global Imaginary.’

From the beginning, artists have also played a key role in critical cartography and exploring their contributions is well trodden territory in books and journal articles. All of these texts provide very similar historical overviews of the development of map-art as a part of the postmodern critical turn. And a number of texts and exhibitions survey modern and contemporary artists who have worked with maps or notions of

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mapping. These include: Denis Wood’s 2006 ‘Catalogue of Map Artists;’\textsuperscript{109} Katharine Harmon’s \textit{You Are Here}, 2004,\textsuperscript{110} and \textit{The Map as Art}, 2009;\textsuperscript{111} the lushly illustrated coffee table book, \textit{Map: Exploring the World}, 2015,\textsuperscript{112} and perhaps the most famous of the many exhibitions\textsuperscript{113} on the topic, \textit{Mapping}, curated by Robert Storr for MOMA, New York in 1994.\textsuperscript{114} The specific roll-call of map artists chosen by each is not of particular interest.\textsuperscript{115} What is relevant to this research is that there has been very little in-depth investigation into three-dimensional manifestations of critical cartography.\textsuperscript{116} And the particular area of sculptural mapping undertaken as part of this research (artworks in the form of ruined scale-model cities) is a gap in the field of critical cartography that has not been addressed as a discrete subject by any of the literature located.

\textsuperscript{109} Denis Wood, "Catalogue of Map Artists," \textit{Cartographic Perspectives: Special Issue: Art and Cartography}, no. 53 (2006): 61-67. It is not always entirely clear from his descriptions if works are 2D or 3D, but it is safe to say that fewer than 10\% of the artists he cites made 3D cartographic artworks. His list can be viewed at: http://www.cartographicperspectives.org/index.php/journal/article/view/cp53-wood-catalogue.

\textsuperscript{110} This book includes more than 170 images of creative cartography, from prehistoric petroglyphs, 15\textsuperscript{th} century diagrams of the human body and 19\textsuperscript{th} century tourist maps to Robert Louis Stephenson’s map of \textit{Treasure Island} and works by 20\textsuperscript{th} and 21\textsuperscript{st} century artists. Harmon’s diverse range includes only seven images of 3D works, and one is the repeatedly cited piece by Claes Oldenburg, \textit{Soft Manhattan #1 Postal Codes}, 1966 (fig. 31). Katharine Harmon, \textit{You Are Here: Personal Geographies and Other Maps of the Imagination}, 1st ed. (New York Princeton Architectural Press, 2004).

\textsuperscript{111} Here Harmon has gone some way towards redressing the imbalance in her previous book. She presents work by 160 artists, 39 of which are represented by one or more 3D works. Katharine Harmon and Gayle Clemans, \textit{The Map as Art: Contemporary Artists Explore Cartography}, first ed. (New York: Princeton Architectural Press, 2009).

\textsuperscript{112} This book features 302 illustrations of maps throughout the ages. Eighteen of these are by modern or contemporary artists, and only five of these are 3D. John Hessler, ed. \textit{Map: Exploring the World} (London: Phaidon, 2015).


\textsuperscript{114} Of the 30 artists exhibited, seven were represented by sculptural works, including Claes Oldenburg’s \textit{Soft Manhattan #1 Postal Codes}, 1966 (fig. 31). Robert Storr, \textit{Mapping} (New York: Museum of Modern Art, 1994).

\textsuperscript{115} The artists and/or movements that are considered significant vary from article to article, show to show, but certain individual artworks, artists or \textit{avant garde} movements crop up repeatedly. These include: the 1929 Surrealist map (fig. 13), Marcel Duchamp, Guy Debord and the Situationists (fig. 29), Alighiero e Boetti (fig. 12), Agnes Denes, Jasper Johns, Richard Long, Robert Smithson (fig. 9) in particular and land artists in general, Robert Rauschenberg, Newton and Helen Mayer Harrison (fig. 30), Yoko Ono, Claes Oldenburg (fig. 31), Mona Hatoum (fig. 32) and Ruth Watson (fig. 33).

\textsuperscript{116} For example see footnotes 109-114. The editors of the special art issue of \textit{The Cartographic Journal}, acknowledge that sculpture that has utilised cartographic strategies was not covered in any of the articles. They seem to indicate that this is indicative of a broader neglect, making it an area open to further investigation, something that has been confirmed by this survey of the literature. Sébastien Caquard, Barbara Piatti, and William Cartwright, "Editorial: Special Issue on Art & Cartography," \textit{The Cartographic Journal} 46, no. 4 (2009): 290. For the purposes of this research performance pieces have not been included in the category 3D artworks. While they undoubtedly engage with 3D space, the interest here is in sculptural objects that occupy, and remain located in, 3D space. For this reason, works such as Guy Debord’s derives or Richard Long’s walks have not been counted. Nor have the 2D maps that point to the location of Land Art interventions.
The metropolis made small

Model cities are a kind of map. In his essay, ‘Carto-City: Mapping and Urban Space,’ Cosgrove points out, “Urban space and cartographic space are inseparable.”\(^{117}\) And while model cities may not be what most people think of when they think of maps, some of the previously discussed texts on map art do include a few examples. In her 2009 book, Harmon includes model city artworks by five artists;\(^{118}\) Denis Wood includes one model city maker in his extensive list of 218 artists working with maps;\(^{119}\) and \textit{Map: Exploring the World} presents the only ruined model city artwork featured in all of the resources reviewed which focus specifically on map art: Alfredo Jaar’s \textit{Venezia}, \textit{Venezia}, 2013, which was discussed earlier.\(^{120}\)

Books and exhibitions that focus on the intersection of art and architecture might be expected to include more examples of model city artworks, but by and large they remain scarce here too. For example, the exhibitions \textit{Mapping a City, Hamburg-Kartierung}, 2003-2004,\(^ {121}\) and \textit{Automatic Cities: The Architectural Imaginary in Contemporary Art}, 2009, didn’t include any.\(^ {122}\) The special art and the city issue of the journal \textit{Art & Design Profile} features only two model city works;\(^ {123}\) and the 2008 exhibition and book \textit{Psycho Buildings: Artists Take on Architecture}, had just one.\(^ {124}\) None of these model city artworks were ruined.

The 2014 book by Lukas Feireiss, \textit{Imagine Architecture: Artistic Visions of the Urban Realm}, is the only text or exhibition located in this survey that does feature a


\(^{118}\) Abigail Reynolds, Bodys Isek Kingelez, Yuki Nakamura, Los Carpinteros, and Carl Cheng. Kingelez’s work will be discussed in Chapter Five. Harmon and Clemans, \textit{The Map as Art: Contemporary Artists Explore Cartography}, 142, 192-93, 217, 229, 244-45.


\(^{120}\) Hessler, \textit{Map: Exploring the World}, 37.


\(^{122}\) The exhibition was held at the Museum of Contemporary Art San Diego, 26 September 2009 – 31 January 2010, curated by Robin Clark. Although it doesn’t include any works in the form of model cities, it does include the video by Ann Lislegaard, \textit{Crystal World (after J.G. Ballard)}, 2006, which was discussed earlier. Robin Clark and Giuliana Bruno, \textit{Automatic Cities: The Architectural Imaginary in Contemporary Art} (La Jolla, CA: Museum of contemporary art San Diego, 2009).


substantial number of artworks in the form of model cities,\textsuperscript{125} including one series of ruined metropolises by the Chinese artist Jiang Pengyi (figs. 14, 36).\textsuperscript{126} Yet even this book does not include any in-depth discussion on the idiosyncratic attributes of artworks in the form of ruined model cities in particular, or even on the conceptual qualities of model cities in general.

Helmut Puff, an Associate Professor in German and History at the University of Michigan, does specifically focus on ruined model cities. In his essay ‘Ruins as Models: Displaying Destruction in Postwar Germany,’ Puff notes that historically model cities were symbols of power and possession, and he highlights the ability of models of ruined cities to encapsulate otherwise incomprehensible devastation.\textsuperscript{127} However, the works he discusses are not artworks. They are models of real cities bombed during WWII.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{image.png}
\caption{Jiang Pengyi, Unregistered City, no.2, 2008, archival inkjet print, 150 x 209cm (ed. of 6), 90 x 125cm (ed. of 8). Image courtesy: Blind Spot Gallery. The artist either has excellent Photoshop skills, or he actually makes his model cities.}
\end{figure}

\textsuperscript{125} Eighteen artists or collectives working with model cities are featured. Lukas Feireiss, Imagine Architecture: Artistic Visions of the Urban Realm (Berlin: Gestalten Verlag, 2014). Ana Serrano (46-47), Liu Wei (96-97), Toteninsel, (98-99), Bertrand Lamarche (102-103), Kyle Bean (125), Calvin Seibert (140), Pedro Varela (141), El Ultimo Grito (142-143), Matias Bechtold (150-151), J. Michael Birn (152), Kiel Johnson (153), James Rojas (168-169), Yin Xiuzhen (170), Erik Sep (175), Liu Jianhua (177), Ramon Espantaleon (185), James McNabb (188-191), EVOL (234-235).

\textsuperscript{126} Ibid., 172-73.

Contemporary artworks in the form of ruined scale-model cities have not received any serious critical attention. *Mapping The Drowned World* goes some way towards filling this gap. The ruined model cities made as part of this research will be critically analysed in Chapter Five, alongside model city artworks by Bodys Isek Kingelez, the collective DAAR (decolonising architecture art residency), Cheng Dapeng, Charles Simonds, Anselm Kiefer and Peter Root. These analyses rely on the fact that both cities and ruins are potent symbols.

![Dresden in ruins after Allied bombings, February 1945. Photo: Richard Peter.](image)

**Figure 15:** Dresden in ruins after Allied bombings, February 1945. Photo: Richard Peter.

### The symbolic city

The city has captured the imagination of ethnographers, geographers, cartographers, photographers, urban planners, architects, historians of various stripes, poets, novelists, directors of disaster films, and of course artists. Musings on the metropolis by French Marxist philosopher Henri Lefebvre (1901-1991) are so extensive that they were collected into a book, *Writings on Cities*. In 1986, the city attracted the attention of über cool publishing house Zone and postmodern theorists such as Paul Virilio, Gilles Deleuze and Felix Guattari made contributions. Italian author Italo Calvino’s 1972 poetic love letter to the city, *Invisible Cities*, is quoted so often that, despite its
Visions of the city, both utopian and dystopian, have inspired many artists and have been the focus of numerous exhibitions at major galleries worldwide. In fact, the city is so central to the human psyche that, when trying to describe something untouched by man, the French philosopher Bruno Latour said:

[W]e have to depend on something that has no human origin, no trace of humanity, something that is purely, blindly, and coldly outside of the City.

Over the centuries untold texts have been dedicated to analysing the city, its social structures, its symbolism and history, and how to make it better. Because of this, the purpose of the brief overview of the literature above is to touch on the breadth of interest in the city as a symbol, rather than dive deep into an impossibly large pool of work.

In terms of Ballard’s multiple fans and foes, Italian independent Ballard scholar Umberto Rossi, University of Roehampton English Literature Lecturer Sebastian Groes, and Lorenz Firsching (as already noted) all highlight the symbolic importance of the city in *The Drowned World*. The other works that have proved most useful for this research include Lewis Mumford's frequently quoted seminal text from 1961,

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129 For example, a search of the Tate Modern website for the word “city” presented 281 exhibitions and events, and 2,663 artworks. These include at least three group shows that focused on the city, as well as several solo shows and, at least 12 events that turned the spotlight on variations on the metropolitan theme: [link](http://www.tate.org.uk/search?q=city&type=event&page=1). MoMA has tagged 1000 artworks and 266 exhibitions with “city.” [link](https://www.moma.org/search?query=city) Closer to home, the same search on the Art Gallery of New South Wales website located 1,132 works with city in the title: [link](https://www.artgallery.nsw.gov.au/search/?q=city).


The City in History,\textsuperscript{132} and two books which specifically address the ruination of urban areas, both titled \textit{Wounded Cities}.

The first, \textit{Wounded Cities: Deconstruction and Reconstruction in a Globalized World}, 2003, was edited by Jane Schneider and Ida Susser, anthropologists at the City University of New York. They highlight the fact that cities can be destroyed by overdevelopment (fig. 16) and neglect as well as by acts of war and natural disasters.\textsuperscript{133} The second, \textit{Wounded Cities: The Representation of Urban Disasters in European Art (14th-20th Centuries)}, 2015, was edited by Marco Folin, Associate Professor of the History of Architecture at the University of Genoa, and Monica Preti, Head of Academic Programs at the Louvre. Despite the fact that the examples they cite are old, if not ancient, the editors contend that, “the question of the role played by the visual arts in the construction of a social memory of the great “catastrophes” of our times—whether hurricanes or earthquakes, bombardments or acts of terrorism—


\textsuperscript{133} Wounded Cities: Deconstruction and Reconstruction in a Globalized World (Oxford: Berg, 2003).
continues to be very much on the agenda.” Several chapters in this book are useful because of their focus on artistic responses to metropolitan catastrophes, the importance of the city as a symbol, and the cyclical nature of urban renewal and destruction.

Reading ruins

An endless cycle of devastation and regeneration can be read in ruins. Since at least the Renaissance, ruins have excited the imagination; ruin theory is another topic too broad to explore here in depth. The key historical theorists who have contributed to this research include: French scholar Denis Diderot who, as early as 1767, realised that ruins evoke a post-apocalyptic narrative; German sociologist Georg Simmel, whose 1911 essay ‘The Ruin’ outlines the traditional, highly gendered, view that the relationship between nature and culture is adversarial; and Rose Macaulay who wrote her 1953 book, Pleasure of Ruins, amidst the rubble of post Blitz London. In addition to Folin and Preti’s Wounded Cities, recent works which have proved useful include the anthology Ruins of Modernity, edited by Julia Hell from the University of Michigan and Andreas Schönle from Queen Mary, University of London; and two by Brian Dillon, an English author who has written extensively on the topic. Dillon’s Ruins, 2011, is a useful edited collection of writings by both artists and theorists; and Ruin Lust, is the catalogue of an exhibition of the same name that he curated for Tate Britain in 2014.

All of these works highlight the fact that for centuries, ruins have embodied a kind of temporal slippage that prompts us to look at the past and examine the present while

135 As Dillon puts it, “the taste for ruins is a modern – that is, post-medieval – invention”. Brian Dillon, Ruin Lust: Artist’s Fascination with Ruins, from Turner to the Present Day (London: Tate Publishing, 2014), 5.
138 Brian Dillon, ed. Ruins, Documents of Contemporary Art (London: Whitechapel Gallery, 2011); Ruin Lust: Artist’s Fascination with Ruins, from Turner to the Present Day. The exhibition, Ruin Lust, was held at Tate Britain London, 4th March – 18 May 2014.
contemplating the future. In his book, *Archaeologies of the Future*, postmodern heavyweight Fredric Jameson points out that sci-fi also has this ability.\(^{139}\) And this research will demonstrate how Ballard makes the most of both ruins and the prescient potential of sci-fi in *The Drowned World*.

**D is for doomsday**

Meditation on events past, present and future is also a key feature of post-apocalyptic narratives. This research is led by the question: what can we learn about our world by re-reading, re-writing and re-interpreting *The Drowned World* through the lens art? And while the ‘answers’ produced by *Mapping The Drowned World* don’t neatly slot into the field of eschatology and its doctrines concerned with last things, they are, like Ballard’s novel, a response to a feeling of doom, a manifestation of eschatological anxiety. The literature surveyed in the remainder of this chapter played a key role in formulating this response.

![Image of a city destroyed over and over again](image-url)

Figure 17: The city is destroyed over and over again in literature, films and artworks. Still from ‘Deep Impact,’ 1998, dir. Mimi Leder, Paramount Pictures and DreamWorks Pictures.

As previously discussed, Kermode argues that stories about the end are a strategy we use to impose order on chaos. For this reason they are always popular. These days we are accustomed to seeing the aftermath of one apocalypse or another played out across our screens, both big and small. *The Drowned World* has yet to be translated into a blockbuster disaster movie by Hollywood,\(^{140}\) and film is not the


\(^{140}\) According to a 25 June 2017 search of the IMDB search engine, a movie titled *The Drowned World* is “in development.” Hopefully it will never be made. See: [http://www.imdb.com/title/tt2740074/?ref_=nv_sr_2](http://www.imdb.com/title/tt2740074/?ref_=nv_sr_2)
subject of this research. One reason is that post-apocalyptic movies and TV shows have already received considerable attention elsewhere.\textsuperscript{141} Another is that, as American cultural theorist Susan Sontag argued in her 1965 essay on B-grade sci-fi films, 'The Imagination of Disaster,' viewing films requires less imagination than reading novels.\textsuperscript{142}

In his essay, 'What Novels Can Do That Films Can't (and Vice Versa),' American film and literary critic Seymour Chatman agrees that films demand less imagination. But he is ambivalent as to whether this is beneficial or not.\textsuperscript{143} But Sontag is clear. She believes film has an advantage since the audience has immediate access to sensory information that doesn’t, as she says, require “an intellectual workout”.\textsuperscript{144} In contrast, I will argue that novels and artworks are both effective and affective precisely because they do require imaginative interpretation; they actively engage the intellect \textit{and} are able to elicit an emotional response.

Sontag raised two other salient points for this project: one this research supports and one that will be negated. Firstly, like this research, Sontag highlighted the cultural importance of imagery of the city destroyed.\textsuperscript{145} Secondly, she argues that post-apocalyptic narratives (disaster films in her case) are an “inadequate response” to the threat of real eschatological crises.\textsuperscript{146}

In Chapter Four of this research I strongly refute this claim and argue that art is a modest, but more than adequate, response to our current crisis, climate-change. I also position this argument in opposition to American journalist Naomi Klein's 2014 book, \textit{This Changes Everything}, in which she outlines a response to climate-change that is so ambitious as to be impossible.\textsuperscript{147} In Chapter Five I further contend that artworks in the form of ruined model cities in particular are powerful and flexible


\textsuperscript{142} Susan Sontag, "The Imagination of Disaster," \textit{Commentary} 40, no. 4 (1965): 44.


\textsuperscript{144} Sontag, "The Imagination of Disaster," 44.

\textsuperscript{145} Ibid., 43, 44.

\textsuperscript{146} Italics in original text. Ibid., 48.

\textsuperscript{147} Naomi Klein, \textit{This Changes Everything} (London: Penguin 2015).
enough to respond, not only to the current crisis, but to any subsequent crises.

One of the central premises of this research is that narrative fictions can be just as informative as facts (and sometimes more effective) and that art is a language which is also capable of telling stories. These arguments are informed by multiple texts on aesthetics, narratology, embodied cognition and philosophy. The complete list is in the bibliography, but it is worth highlighting Andy Clark’s *Mindware*. In this 2001 book on embodied cognition, Clark, who is currently a Professor of Logic and Metaphysics at the University of Edinburgh, points out that writing and drawing are actually ways of thinking.\textsuperscript{148} The other key thinkers whose works informed this area of this research (in addition to Frank Kermode, who classified almost all epistemological systems as narrative, but neglected to include art) are outlined below.

Written in 1984, Fisher’s ‘Narration as a Human Communication Paradigm: The Case of Public Moral Argument’ is particularly interesting because, like this research, it too was a response to eschatological anxiety, in this case the Reagan-era Cold War. When he formulated this theory Fisher was a Professor of Communication, Arts and Sciences at the University of Southern California. He argues that storytelling is a universal human attribute. Fisher points out that because storytelling doesn’t have to be learned it is a democratic method of communication: it subverts the hierarchy inherent in rational, fact-based argument, making it a useful tool in public debate on moral issues such as nuclear disarmament (or, indeed, the threat of global warming).\textsuperscript{149}

In his 2013 book *Hyperobjects*, Timothy Morton, an English Professor at Rice University in Texas, also draws attention to the failure of rational argument in the face of something as overwhelming as climate-change.\textsuperscript{150} The ideas Morton outlines are not particularly new, but they are very now. In many ways his thesis is simply an updated critique of the Enlightenment. Using an ultra cool lingo, peppered with pop cultural references, he draws on the work of numerous philosophers including Aristotle, Kant, Heidegger, Hegel, and particularly Graham Harman’s Object Orientated Ontology (OOO), to make many of the same points made decades earlier.


by Horkheimer and Adorno in *Dialectic of Enlightenment* (and Ballard in *The Drowned World*, as I argue in Chapter Two). Like these texts, Morton highlights the failure of science to quantify the known world\(^{151}\) and the dangers of attempting to do so, and he places emphasis on “the strange interconnectedness of things”.\(^{152}\)

However, Morton’s argument does differ from these earlier texts by significantly broadening the scope of inter-objectivity. Rather than just picturing nature and culture as entwined, Morton asks us to conceive of everything (absolutely everything, including manmade and inanimate objects both past and present) as “enmeshed” across both time and space in hyperobjects. For him, hyperobjects are “things that are massively distributed in time and space relative to humans” and “genuine nonhuman entities that are not simply the products of a human gaze”.\(^{153}\) Global warming is his key hyperobject. “[It is] the ecological trauma of our age, the very thing that defines the Anthropocene as such.”\(^{154}\)

The term the Anthropocene will be discussed in more depth in Chapter Three. I find it problematic and this research mostly avoids using it. Many of the authors surveyed in this review of the literature concur, and two outlined theories which informed my own thinking. In her 2015 essay, ‘Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin,’ Donna Haraway, Professor Emerita in the History of Consciousness and Feminist Studies Departments at the University of California, Santa Cruz, argues that if we insist on using the phrase the Anthropocene, it would be better to think of it as a boundary event, not an epoch.\(^{155}\) In her 2016 essay, ‘Terraforming for Urbanists,’ Ursula K. Heise, Chair in Literary Studies at UCLA, suggests that human impact on planet Earth can be thought of in terms of the sci-fi trope of terraforming.\(^{156}\)

The notion of the Anthropocene is inextricably linked to awareness of climate-change. And it is not surprising that scientists, such as American biologist Eugene F. Stoermer (1934-2012) and Dutch atmospheric chemist Paul J. Crutzen who coined the phrase in 2000, or American geoscientist Wallace S. Broecker who is credited with inventing the phrase global warming in 1975, were aware of the dangers of our

\(^{151}\) Ibid., 160-61.
\(^{152}\) Ibid., 83.
\(^{153}\) Ibid., 1, 199.
\(^{154}\) Italics in original text. Ibid., 9.
changing climate first. Works by these scientists will be examined in Chapters Three and Four.\(^{157}\)

Identifying when the broader public became aware of climate-change, and in particular when this crisis supplanted the Cold War as the crisis of the age, is a little more difficult. *The End of Nature*, 1990, by American environmental activist and journalist Bill McKibben; ‘The History of the Global Climate Change Regime,’ 2001, by Daniel Bodansky, then Climate Change Coordinator for the US Department of State; and *The Discovery of Global Warming*, 2008, by Spencer R. Weart, Director Emeritus of the Centre for History of Physics of the American Institute of Physics, were all useful in this research.\(^{158}\)

In Chapter Five I posit that the ruined city could be the powerful image we need for communicating the dire ramifications of an anthropocentric world view. In addition to the texts on ruins and cities mentioned earlier, two books from the previous eschatological crisis were critical in formulating this argument. The first, *Hiroshima*, 1946, by the American journalist John Hersey, documents the experiences of survivors of the first city ever devastated by an atom bomb.\(^{159}\) The second, Weart's *Rise of Nuclear Fear*, 2012, highlights the strategic deployment of images during the Cold War.\(^{160}\)

And, in the context of early environmental campaigns, both Denis Cosgrove’s 2001 book, *Apollo’s Eye*, and Ursula K. Heise’s *Sense of Place and Sense of Planet*, 2008, also provide evidence of just how effective a single potent image can be.\(^{161}\)


E is for (one of many) endings

*Mapping The Drowned World* is a response to eschatological crisis. With the exception of Chatman’s essay on film and Clark’s book on embodied cognition, all of the above ‘D is for doomsday’ texts were also created within the context of a feeling of impending dread, driven by either the Cold War or climate-change, or both.

It is worth adding one final text to this survey of the literature, W. Warren Wagar’s *Terminal Visions: The Literature of Last Things*. Published in 1982, this book perfectly captures the all pervasive climate of fear that shaped my own early eschatological anxiety, an anxiety that I found mirrored in *The Drowned World*.

This research represents the first major in-depth analysis of *The Drowned World* that utilises an integrated strategy of critical analysis, creative writing and sculptural practice. The three-pronged methodology of *Mapping The Drowned World* has generated new knowledge which contributes to three fields: scholarship on Ballard, critical cartography, and responses to eschatological crises. Jeannette Baxter argued that “Ballard's work requires a theory of reading which is not wholly literary,” but she stopped short of advocating for a re-reading through visual art, something this project begins to undertake.

Written in 1962, during the perpetual slow-burning crisis of the Cold War, *The Drowned World* reads like an uncanny premonition of the key crisis of our current age: climate-change. As a story that seems to embody both the post-war apocalyptic fears of the recent past and current eschatological anxieties, J.G. Ballard’s sci-fi novel remains as relevant now as when it was written, perhaps even more so.

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162 Wagar, *Terminal Visions: The Literature of Last Things*.

163 At least I couldn’t find any others. And at 40,000+ words it is the longest work dedicated to this novel, longer even than the first monograph on Ballard (Pringle’s 1979, *Earth Is the Alien Planet*, which is grand total of 63 A5 pages).

Additional images

Ballard’s artworks and Ballardian artworks


Figure 21: Ambit no. 50, 1972. Euphoria Bliss, a regular on Ambit covers, is in the foreground. Seated, L to R, are Eduardo Paolozzi, J.G. Ballard and Michael Foreman, Martin Bax is standing. Photo: Andrew Lanyon. Image courtesy: Eye Magazine.
Figure 22: Poster for the exhibition Crash: Homage to J.G. Ballard featuring photos taken by Ballard of his Ford Zephyr after his car accident in 1973. The exhibition was held 11 February – 1 April 2010. Image courtesy: Gagosian Gallery.
Figure 23: Cover of *J.G. Ballard: Autòpsia Del Nou Mil·leni*, Jordi Costa, ed, Barcelona: Centre de Cultura Contemporània de Barcelona, 2008. The exhibition was held 22 July – 2 November 2008. Image courtesy: CCCB.
Figure 24: Michelle Lord, *Future Ruins: Part 01*, 2007, 1/12 scale, 200 cast TVs. Image courtesy: Michelle Lord.
Figure 25: Ed Ruscha, *Fountain of Crystal*, 2009, acrylic on canvas, 76.5 x 91.8 cm. Image courtesy: Gagosian gallery. Text lifted from Ballard’s novel *Crash*.

Figure 26: Tacita Dean, *JG*, 2013, colour and black and white anamorphic 35mm film with optical sound, 26.5 minutes. Image courtesy: Arcadia University.
Critical cartography artworks

Figure 28: Adam Lowe and Professor Jerry Brotton, *Terra Forming: Engineering the Sublime* (detail), 2013-2015, a 2 x 4m 3D relief projection of the world was flooded. Image courtesy: Factum Arte.

Figure 29: Guy Debord, *Discours sur les passions de l’amour*, 1957. 60 x 75cm. Image courtesy: Imaginary Museum.
Figure 30: Newton and Helen Mayer Harrison, *The Lagoon Cycle* (detail), 1974, an installation of over 50 parts. Image courtesy: The Harrison studio. I discovered these works after starting my own project, but these maps bear a striking resemblance to my *Drowned World* maps (discussed in Chapter Four).
Figure 31: Claes Oldenburg, *Soft Manhattan #1 (Postal Zones)*, 1966, stencilled canvas filled with kapok, 177.8 x 66.04 x 10.16cm. Image courtesy: Albright-Knox Art Gallery.

Figure 33: Ruth Watson, *L’Origine du Monde* 2003, salt, directly onto floor, diameter 6.6 metres Installation view, *Abstractions* Exhibition, Drill Hall Gallery, Canberra Australia. Image courtesy: Two Rooms.
Ruined scale-model city artworks

The utopian model cities of Bodys Isek Kingelez and the collective DAAR (decolonising architecture art residency) will be discussed in Chapter Five. Artworks in the form of ruined scale-model cities by Cheng Dapeng, Charles Simonds, Anselm Kiefer and Peter Root will be analysed and illustrated in Chapter Five, as will the ruined scale-model city artworks made as part of this research. Here are a few additional artworks in the form of miniature ruined metropolises.

Figure 34: EVOL, Caspar-David-Friedrich-Stadt, 2009, spray paint, site-specific, painted in a hole in the ground in an abandoned slaughterhouse area in Dresden, approx. 10 x 8m. Image courtesy: EVOL.
Figure 35: These cities may not be completely ruined, but definitely precariously balanced. Liu Wei, Library II-II, 2013, books, wood, iron and hardware, three sculptures, max height 180cm. Image courtesy: Lehmann Maupin.

Figure 36: The artist either has excellent Photoshop skills, or he actually made the model cities. Jiang Pengyi, Unregistered City, no.5, 2008, archival inkjet print, 150 x 209cm (ed. of 6), 90 x 125cm (ed. of 8). Image courtesy: Blind Spot Gallery.
Figure 37: Ruins are often read as a nature/culture clash. Here is it particularly overt. Pim Palsgraaf, Multiscape 16, 2009, taxidermy dik dik, wood, plastic model houses, 120 x 50 x 40cm. Photo: Pim Palsgraaf.
Chapter Two:
Mapping The Drowned World

“Soon it would be too hot.”1 Ballard’s economy with words is impressive. With just six, the first line of his 1962 novel The Drowned World, he appeared to issue a prescient warning of climate-change, long before the phrase was even coined.2 More than five decades later, the causes may be different, but we seem to be spiralling into an ecological melt-down straight out of his post-apocalyptic vision.

Sometime around 2005, as it became more and more obvious that climate-change was not a disaster waiting to happen but a catastrophe already in motion, I re-read The Drowned World. I had first read the novel some 20 years earlier and I realised that we had been warned over and over that a climate crisis was coming, not only by science, but by the speculations of science-fiction.

In my 2007 solo show, Post-Premonitionism: J.G. Ballard’s The Drowned World, I exhibited my first sculpture which was made in direct response to Ballard’s novel.3 I invented the term ‘Post-Premonitionism’ in response to the burgeoning climate crisis. It embodies a critique that implies the question, ‘What do you do when you have already seen the future?’ And what did we do post-premonition? Not much, certainly not enough.

Ten years later, little has changed. In January 2017, Sydney sweltered through the hottest January ever.4 Heat was followed by wet as the city then experienced the rainiest March since 1975, and Cyclone Debbie caused major flooding in Queensland, Northern NSW and parts of New Zealand.5 Climate-change is clearly a reality, not a theoretical concern, so what action is being taken?

2 The history of public awareness of climate-change is briefly outlined in Chapter Four.
On its official website the Department of the Environment and Energy proudly announces that “Australia is meeting our climate change targets, improving the environment and supporting an effective international response.”\(^6\) Yet in late December 2016 *The Guardian Australia* reported that according to the latest government statics, Australia’s quarterly emissions are still rising. “These results are a national embarrassment,” said John Connor, chief executive of The Climate Institute. “Despite having committed through the Paris agreement to reduce our emissions to net zero, our emissions are still going up, not down – and it is because we don’t have effective policies to reduce them.”\(^7\) Eschatological anxiety remains a valid response to the times.

Figure 38: Tracey Clement, *Post-Premonitionism 2*, 2014-15, salt, rusty steel, cotton, dimensions variable, max height 1.8m. Installed in *Mapping The Drowned World* at SCA Galleries, 8-31 October 2015. Photo: T. Clement.

I began this research by revisiting both *The Drowned World* and my earlier sculptural response to Ballard’s vivid prognostications. The result was the installation, *Post-Premonitionism 2* (fig. 38). The use of the number 2 in the title, rather than the more dignified Roman numeral II, is a tongue-in-cheek nod to the sci-fi origins of the work. Sci-fi makes very popular movies, both B-grade and block-buster. And like a movie, *Post-Premonitionism 2* is a sequel.


The sci-fi genre is frequently dismissed as kitsch, but nevertheless it is known as a platform from which to critique human behaviour and social institutions. As Fredric Jameson argued in his 1982 essay ‘Progress versus Utopia, or, can we imagine the future?’ our current conditions are difficult to ‘see’ from our vantage point, mired as we are in the depths of the present. For him, science fiction employs unique strategies that allow us to escape the strictures of linear temporality. As he explained in his characteristically obtuse fashion:

For the apparent realism, or representationality, of SF has concealed another, far more complex temporal structure: not to give us “images” of the future – whatever such images might mean for a reader who will necessarily predecease their “materialization” – but rather to defamiliarize and restructure our experience of our own present, and to do so in specific ways distinct from all other forms of defamiliarization.8

In other words, by picturing the present as the past of the future, sci-fi offers a unique perspective from which to issue a warning. And Ballard does just that. The post-apocalyptic future of The Drowned World is a warning that seems just as relevant today as when it was written more than 50 years ago.

As a bridge between the Cold War fears of the recent past9 and current eschatological anxieties, I felt certain that The Drowned World was a potentially rich source of inspiration for contemporary artists and I began this research keen to examine how they reinterpreted the novel through the lens of art.

However, as discussed in Chapter One, I searched for artists who had responded directly to The Drowned World, but did not find many. Frustrated in this quest, I decided to generate relevant artworks for this project by inviting other artists to read the novel and interpret it through their work. With this in mind, I initiated and coordinated the group exhibition, Mapping the Drowned World,10 as part of my research methodology (figs. 39, 47, 48, 50, 51, 52).

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9 It is worth noting that I began this research before Donald Trump became President of the USA. Since this regime change it seems likely that fear of nuclear Armageddon may return.

10 Mapping the Drowned World, coordinated by Tracey Clement, 8-31 October 2015, SCA Galleries, Sydney College of the Arts, University of Sydney, Balmain Road, Rozelle, NSW, Australia.
The aim of this primary research was to pinpoint what other key Australian artists identified as the major themes of the novel. I did not engage in discussions with the artists about the novel or their proposed artworks prior to the exhibition opening. Realising a singular curatorial vision was not the goal of this enterprise. Instead, the research methodology was exploratory; the exhibition was a fact-finding strategy. I chose five Australian artists to join me in responding to *The Drowned World*: Roy Ananda, Jon Cattapan, Kate Mitchell, Janet Tavener and Gosia Wlodarczak.

The selection of this particular group of artists was based in part on a desire to cover a broad range of artistic practices: sculpture, painting, video, photography and drawing respectively. Melbourne-based artist Jon Cattapan was an obvious choice as the only artist I located who had responded directly to the novel previously. Roy Ananda, who lives and works in Adelaide, had a history of working with other sci-fi and speculative fiction texts. Gosia Wlodarczak, from Melbourne, and Sydney-based artists Kate Mitchell and Janet Tavener were selected because their work indicated interesting potential. Each artist was sent a copy of the novel and a deadline, and was asked to create new work that responded to the themes and imagery of *The Drowned World*. As primary research for this project, they all agreed to be interviewed about the process of working with the novel.\(^{11}\)

\(^{11}\) Complete transcripts of these interviews can be found in: Appendix B, 227-262.
Due to the pressure of other commitments, Kate Mitchell submitted a pre-existing video, *Beyond Setting Suns*, 2014 (fig. 40). This work features images of the sun that seem to exert a mesmerising pull in a tragi-comic way. It was a very useful addition to the exhibition, but, since it was not made in direct response to *The Drowned World* it did not fulfil the research criteria. Because of this Mitchell was not interviewed for this project and her work will not be discussed any further here.\(^{12}\)

Gosia Wlodarczak did make new work (fig. 49) in response to her own idiosyncratic reading of *The Drowned World*, but, unfortunately, her approach was not useful to this research. Rather than working with themes and imagery from the novel (as requested) she literally responded to the text itself, focusing on individual words which she didn’t understand. Her work says more about her own experiences as someone born in Poland living in an English-speaking country than it does about the novel. It is about translation and misinterpretation. As a result, neither the work Wlodarczak made for *Mapping The Drowned World*, nor her interview are directly relevant to this research.\(^{13}\)

The remaining artworks from the exhibition, those made by Jon Cattapan, Janet Tavener, Roy Ananda, and myself, will be discussed in depth as we begin *Mapping The Drowned World*.

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\(^{13}\) For more information on this artwork see: Ibid., 23-26.
The Drowned World made manifest

_The Drowned World_ is set in the near future.\(^{14}\) Rather than restrict his story to any particular date, Ballard marks time by counting backwards from the post-apocalyptic present of the novel. In Ballard’s scenario the entire geography of the planet has been reshaped and all major metropolises worldwide have been flooded. This ecological catastrophe was triggered by a series of violent (and inexplicable) solar storms just 70 years ago.\(^{15}\)

Over the course of the next 20 years the polar ice caps melted, oceans rose, and silt and sand changed the landscape beyond recognition. During this period waves of climate-change refugees migrated north. Twenty years prior to the present of the novel the last fortified city was abandoned, and 10 years after that the few remaining occupants left the Ritz hotel in London where the protagonist of the novel Robert Kerans (he’s certainly not a hero) takes up residence six months before the story begins.\(^{16}\)

In the present of _The Drowned World_ the Ritz is semi-submerged in a tropical lagoon. Most of the action in the novel takes place here, and in other lagoons and buildings nearby. Kerans is part of a bio-science team led by Colonel Riggs. His companions on the team include Dr Bodkin, a scientist and the only member of the team old enough to remember a pre-drowned world, and Lieutenant Hardman who is the first person to succumb to the nightmares of a throbbing sun that will soon also trouble Kerans. The only civilian character, and the only woman, is Beatrice Dahl.\(^{17}\) As the novel begins the whole bio-science team has been recalled to the only major human city left: Camp Byrd, a UN run station in Greenland. They are preparing to leave behind the extreme heat, oppressive fecundity and damp glamour of the ruined metropolis in _The Drowned World_.

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\(^{14}\) On Wikipedia (and therefore often repeated) and on the book jacket for the 50\(^{th}\) anniversary edition, it is claimed that the novel is set in 2145. However, no dates are actually mentioned in the novel. J.G. Ballard, _The Drowned World: Fiftieth Anniversary Edition with an Introduction by Martin Amis_, First ed. (New York and London: Liveright Publishing Corporation, 2012).

\(^{15}\) _The Drowned World_, 20.

\(^{16}\) Ibid., 19-21, 93, 21, 10, 9. See timeline in: Appendix A, 226.

\(^{17}\) Beatrice is discussed in depth in Chapter Three.
In *Post-Premonitionism 2*, the sculpture I made for *Mapping The Drowned World*, fragile steel structures represent the skeletal remains of a ruined model city perched on a landscape of corrosive, glittering white peaks (fig. 41). Salt, rather than water, is the destructive force; a change appropriate to the desert continent of Australia. At first glance, both my artwork and Ballard’s novel seem to reinforce a traditional reading of ruins as evidence of nature’s vengeful re-conquest of territory.\(^18\)

Ruins have long been theorised as evidence of the adversarial relationship between nature and culture. In his essay of 1911, ‘The Ruin,’ the German philosopher and sociologist Georg Simmel characterises this conflict as a violent, gendered struggle. Man’s efforts are “upward striving” (he may as well have said thrusting), intellectual and lofty, while those of nature are “downward–dragging, corroding, crumbling”.\(^19\) And nature, which he explicitly refers to as feminine, is not only a brute force lacking in vision, she is also unforgiving. As he says, “[D]ecay appears as nature’s revenge for the spirit’s having violated it by making a form in its own image.”\(^20\)

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\(^{18}\) More on the conceptual power of ruins, and ruined model cities, in Chapter Five.


\(^{20}\) Ibid., 259.
Twisted, rusty and ephemeral, the semi-abstract city Post-Premonitionism 2 will eventually disintegrate completely. Leaving aside the vaguely salacious, distasteful overtones of Simmel’s gendered violation, this sculpture is a poignant symbol of the folly and futility of trying to dominate and subdue the forces of nature. Or as Ballard put it in The Drowned World:

Without the reptiles, the lagoons and the creeks of office blocks half-submerged in the immense heat would have had a strange dream-like beauty, but the iguanas and basilisks brought the fantasy down to earth. As their seats in the one-time boardrooms indicated, the reptiles had taken over the city. Once again they were the dominant form of life.21

In my sculpture the human-made steel structures of the miniature city are utterly helpless against the inexorable corrosive power of the natural environment. If there is indeed an ongoing battle between nature and culture it is clear in both novel and artwork exactly which has been victorious. However each of these creative works can also be read (or re-read) in other ways; ways which resonate with our post-climate-change reality.22

As they rapidly turn to rust, the precise rectilinear structures of the sculptural miniature city in Post-Premonitionism 2 begin to soften and crumple as they join the organic forms they rest on (figs. 41, 42). Streaks of red-orange ferrous oxide stain the white crystalline peaks of salt: the two elements merge and meld, becoming entwined. Watching the slow process of salt crystals growing and the surprisingly fast disintegration of steel wire, I began to see the poetic significance of this co-mingling. A process which I had initially conceived of as a classic nature/culture clash, a symbol of mankind’s hubris, a kind of scale-model of the beautiful and terrible sublime power of nature’s omnipotence in action, started to evoke a different kind of relationship. It became less about the clash of opposites and more about the

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22 By post-climate-change I don’t mean that climate-change is over, just that it is already happening. Writing in 1990 Bill McKibben seems to agree. In the context of global warming he said, “Changes in our world can happen in our lifetime – not just changes like wars, but bigger and more total events. I believe that, without recognizing it, we have already stepped over the threshold of such a change: that we are at the end of nature.” What he means by this is that we must admit that we can alter natural phenomenon, and quickly. He is saying that we are already in the post-climate-change age. Bill McKibben, The End of Nature (London: Viking, 1990), 7.
perpetual cycles of life. I realised that my ruined miniature city was as much a site of reunion as of conflict.

And interestingly, significantly, it wasn’t until my artwork became manifest, asserting its materiality in the real world, that I realised that in *The Drowned World* Ballard also subverts the traditional interpretation of ruins as manifestations of the adversarial dynamic between man and the natural world.

By re-reading the novel through art I realised that Ballard’s post-apocalyptic vision can be read in multiple ways more nuanced than a straightforward nature/culture clash. In Chapter Three the novel will be interpreted as a utopian vision appropriate for our post-climate-change age. And in the remainder of this chapter *The Drowned World* is re-read as an English language critique of the Enlightenment that makes many of the same points as Max Horkheimer and Theodor Adorno’s more academically respected, *Dialectic of Enlightenment*. This analysis is supported by the text itself and augmented with issues raised by the artworks made for the exhibition, *Mapping The Drowned World*. 

Figure 42: Tracey Clement, *Post-Premonitionism 2* (detail), 2014-2015, salt, rusty steel, cotton, dimensions variable, max height 1.8m. Photo: T. Clement.
Radiant calamity

The eschatological imaginings in *The Drowned World* were written during the Cold War. The disaster which seemed inevitable at the time was the short, sharp annihilation (followed by the slow painful radiation poisoning) of the atomic bomb. However, significantly, like climate-change, nuclear Armageddon is disaster with man-made origins.

By staging his apocalyptic event within a timeframe of just 70 years, roughly the average human lifespan, Ballard subtly reminds us of our own culpability in creating, not only the historical crisis that shaped his novel, but the one we are living through now. We are in the midst of a cataclysm that didn’t have to happen. Our climate crisis was brought about by the arrogant attitude that nature can be, and should be, controlled; a toxic legacy of the Enlightenment. *The Drowned World* maps the trajectory of Enlightenment sanctioned thinking taken to its inexorable calamitous conclusion.

The Enlightenment, like any named moment of history, was less a unified movement and more a collection of disparate, sometimes contradictory, and constantly shifting ideas. Defining the precise nature of the Enlightenment project is beyond the scope of this research. But, broadly speaking, the Enlightenment is considered to be a product of the 18th century and the diverse intellectual enquiries it spawned were united by a profound belief that by harnessing the power of knowledge man could surmount any obstacle, solve any problem. As the name indicates, light was a key metaphor and scholars across Europe and North America scrutinised political, social, economic and religious traditions, dogma, and structures under the illuminating glare of reason.

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23 Even the bracketing dates of the Enlightenment are disputed. Some historians cite the work of Descartes from the 1640s as the beginning, others the death of Louis XIV in 1715. The end is sometimes set during the French Revolution in 1789, or in 1793 when Louis XVI lost his head, while others believe the Enlightenment project continued into the 19th century and beyond. Peter Hulme and Ludmilla Jordanova, "Introduction," in *The Enlightenment and Its Shadows*, ed. Peter Hulme and Ludmilla Jordanova (London: Routledge, 1990), 1-3. To get around these disputes it’s sometimes called ‘the long eighteenth century.’ “Centre for Studies in the Long Eighteenth Century,” School of English, University of Kent https://www.kent.ac.uk/english/research/centres/18th.html.

The legacy of the Enlightenment is complex. It is certainly not all negative, but it is murky, insidious and deeply ambiguous. In their excellent edited collection of essays, *The Enlightenment and Its Shadows*, scholars Peter Hulme and Ludmilla Jordanova cite *The Encyclopédie* of 1751 as a quintessential Enlightenment document. This ambitious tome was an attempt to record everything known to man. In this way, it neatly and succinctly, if somewhat simplistically, embodies the ambiguity of the Enlightenment project.

At first glance it is hard to fault the monumental quest for knowledge that produced *The Encyclopédie*: it seems admirable, altruistic, heroic. But the undercurrent flowing through this herculean endeavour is the inherent belief that it is possible for man to know everything. Not only is this rapacious hunger for knowledge an example of unbridled hubris, it also points to a more sinister appetite: the desire to exert control. Or, as Horkheimer and Adorno put it in the very first sentences of their *Dialectic of Enlightenment*:

> Enlightenment, understood in the widest sense as the advance of thought, has always aimed at liberating human beings from fear and installing them as masters. Yet the wholly enlightened earth is radiant with triumphant calamity.  

The *Dialectic of Enlightenment* is odd collection of essays, originally (and appropriately) published under the title *Fragments of Philosophy*. Horkheimer and Adorno’s arguments are meandering, almost stream of consciousness in places. Nevertheless, the *Dialectic of Enlightenment* has without a doubt been enormously influential in shaping contemporary critical theory in the Anglophone world. It is both difficult and brilliant. As fellow German philosopher Jürgen Habermas put it in his critique of the work, “*Dialectic of Enlightenment* is an odd book.” Nevertheless, he acknowledges that it has had an enormous impact. Hulme and Jordanova describe

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25 For example, Wilson points out that Enlightenment thinking prompted some political reforms which had practical benefits for some citizens. She cites Cesare Beccaria’s *On Crimes and Punishments* which initiated reforms that led to the abolition of torture in Italy and other European nations. Ibid., ix, 46.
26 Hulme and Jordanova, "Introduction." 1.
29 Ibid., 106-07.
the book as “One of the most sophisticated and involuted condemnations of the Enlightenment”.  

Written in 1944, while in exile from the genocidal tendencies of the Nazis, *Dialectic of Enlightenment* is a Marxist critique that rails against oppression. Horkheimer and Adorno’s disparate ‘fragments’ include, amongst others, an essay on anti-Semitism, analyses of the Homeric epic *The Odyssey* and the writings of de Sade, and a cutting indictment of the homogenising effects of the culture industry.

In terms of this research, their most salient points are made most clearly in the chapter titled, ‘The Concept of Enlightenment.’ Here Horkheimer and Adorno sum up their thesis rather bluntly, saying, “Enlightenment is totalitarian.”  

They argue that while the Enlightenment is seen as casting the bright rays of reason into the dark corners of superstition, in actual fact both myth and science fulfil the same role: they are attempts to understand the mysteries of the world in order to dispel fear. Once freed from fear and armed with knowledge man is able to impose order on chaos, to control nature. To achieve this aim man must see himself as both separate from and superior to nature, a mind-set that then sanctions the use of plants, animals and all other elements of the natural world as resources ripe for exploitation. This attitude in turn leads, inevitably, to totalitarian oppression of other humans as well. And, significantly, they also argue that in replacing myth with science we may have lost more than we have gained. The reductive, violent processes of science, which demand that everything be quantified, systematised, mathematized, leave no room for the ineffable, for magic, for art.

*Dialectic of Enlightenment* wasn’t translated into English until 1972, a full decade after *The Drowned World* was published. Using metaphor and evocative textual imagery, Ballard’s novel posits a thesis very similar to Horkheimer and Adorno’s polemic. *The Drowned World* can be read as a critique of the Enlightenment that is every bit as damning and much more accessible.

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30 Hulme and Jordanova, ”Introduction,” 4.
32 Ibid., 5.
33 This is essentially a synopsis of the thesis of the whole first chapter. ”The Concept of Enlightenment,” in *Dialectic of Enlightenment: Philosophical Fragments*, ed. Gunzelin Schmid Noerr, Cultural Memory in the Present (Stanford University Press, 2002), 1-34.
Gardening for God

Hulme and Jordanova outline one of the lasting legacies of the Enlightenment as the idea of progress “initially from 'savagery' to 'civilization', but then through the stages of a more complex developmental model based on distinctions between hunting, pastoralism, and agriculture.”

This notion of progress is key to understanding the dark side of the Enlightenment. It embodies a hierarchy in which civilised man (and it was man at the time) is genuinely, and conveniently, believed to be superior to his ‘savage’ cousins. And, crucially, being civilised is demonstrated by mastery over nature. As Enlightenment philosopher John Locke argued in his Two Treatises of Government, 1690:

> God gave the World to Men in Common; but since he gave it them for their benefit, and the greatest Conveniences of Life they were capable to draw from it, it cannot be supposed he meant it should always remain common and uncultivated. He gave it to the use of the Industrious and Rational, (and Labour was to be his Title to it;) not to the Fancy or Covetousness of the Quarrelsome and Contentious.

Following this argument, gardening became a moral imperative and a way to demonstrate both rationality and civilised superiority: savages merely hunt and gather, treading lightly on the earth, while civilised man toils and tills, subjugating nature to his will. This adversarial dynamic between nature and culture, a perpetual power struggle with no end in sight, is one of the most enduring Enlightenment concepts.

Through his beautiful, seductive and disturbing imagery of a submerged city wreathed in vines and inhabited by iguanas, monkeys and mutant mosquitos, Ballard demonstrates the futility of trying to subjugate nature. The opening paragraph of The Drowned World makes this abundantly clear:

> Soon it would be too hot. Looking out from the hotel balcony shortly after eight o'clock, Kerans watched the sun rise behind the dense

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34 Hulme and Jordanova, "Introduction," 8.
35 Capitalisation and emphasis is in the original text. Peter Hulme, "The Spontaneous Hand of Nature: Savagery, Colonialism, and the Enlightenment," ibid., 29.
36 And, as Peter Hulme points out in his chapter for The Enlightenment and Its Shadows, those who neglect to do so “were at best ignoring God's intentions, at worst failing to demonstrate their rationality and, therefore, since human beings are essentially rational, failing to demonstrate their humanity.” Hulme argues that this notion justified the bloody seizure of whole continents from indigenous peoples, by civilised, "Industrious and Rational" colonising forces. Ibid.
groves of giant gymnosperms crowding over the roofs of the abandoned department stores four hundred yards away on the east side of the lagoon. Even through the massive olive-green fronds the relentless power of the sun was plainly tangible. The blunt refracted rays drummed against his bare chest and shoulders, drawing out the first sweat, and he put on a pair of heavy sunglasses to protect his eyes. The solar disc was no longer a well-defined sphere, but a wide expanding ellipse that fanned out across the eastern horizon like a colossal fire-ball, its reflection turning the dead leaden surface of the lagoon into a brilliant copper shield. By noon, less than four hours away, the water would seem to burn.37

Department stores, profane temples of our late capitalist commodity culture, are abandoned while the power of the sun is relentless. If there is indeed an ongoing battle between nature and culture it is clear in this first passage which is the victor. From the very beginning Ballard shows that the earth is not a garden ripe for exploitation by the industrious and rational. Instead, The Drowned World repeatedly demonstrates that nature is ever evolving, always moving. Any structures we attempt to impose are always only temporary. Slowly, patiently, microscopically even, nature will breach all of our boundaries.38

This sense of contingency within a natural environment that is in a state of perpetual flux is a key theme identified by Jon Cattapan. His ongoing series of paintings, The City Submerged (fig. 43), depicts, as he put it when interviewed, “floating cities and very fluid landscapes.”39 In Mapping the Drowned World Cattapan presented his latest iteration of this collection of paintings in which it is difficult to distinguish between the artefacts of culture and the watery world of nature.40 Nothing is fixed, edges smear; they blur and bleed. As he said in his statement for the Mapping The Drowned World catalogue:

The City Submerged is a fluid, evolving archive of fragments, made in different places, at different times, but always referring back to a

37 Ballard, The Drowned World, 7. A gymnosperm is an ancient type of seed producing plant that includes Ginkos and conifers.
38 More on the cyclical destruction of the built urban environment in Chapter Five.
39 All Jon Cattapan’s quotes (unless otherwise noted) are from an interview I conducted with the artist in Melbourne on 22 January 2015. For complete interview transcript see: Appendix B, 236-248.
loosely connected set of nocturnal urban reflections. It started in 1991, and all the while that I was making these paintings I was thinking about Ballard’s vision of *The Drowned World*, a narrative in which everything is getting ready to just slide away.\(^{41}\)

Cattapan first read *The Drowned World* in 1989 and he described it as “very, very influential.” In much the same way that I did, and around the same time, he came to terms with the inexorable power of nature and caught a glimpse of a post-climate-change future through the novel. “It seemed to me, even at the time, that it was a very prescient book,” he explained. “The narrative has become a little more developed now around that idea of what people call global warming, but I remember really putting that together with Ballard at a certain point.”

*The Drowned World* went on to have a lasting impact on Cattapan’s world view and artistic practice. Cattapan recalled, “At the moment I found Ballard, and in particular when I say that I’m talking about reading *The Drowned World*, I understood that here was not only a potential influence, but also a very kindred kind of artist, a kindred spirit.” And he went on to say that he can trace the impact of the novel through his successive

artworks. “It’s all kind of one big body of work that I think goes almost all the way back to that particular moment.”

Both *The Drowned World* and Cattapan’s paintings highlight the fact that the Enlightenment notion that nature can be controlled by the industrious and the rational is deeply flawed. The only rational response may be to stop fighting and acknowledge its inexorable power.

**Collateral damage**

It is easy to see the damage we are causing the natural world. For example, The Center for Biological Diversity notes that the natural “background” rate of extinction is a maximum of five species per year. We are now in the sixth great extinction: species are currently being lost at 1,000 to 10,000 times the background rate. And they point out that “Unlike past mass extinctions, caused by events like asteroid strikes, volcanic eruptions, and natural climate shifts, the current crisis is almost entirely caused by *us* — humans.”42

But Horkheimer and Adorno acknowledge that the ongoing battle between nature and culture has collateral damage on both sides. Critiquing the idea that nature and culture are opposites, as institutionalised by Enlightenment philosopher Immanuel Kant, they wrote:

> The mastery of nature draws the circle in which the critique of pure reason holds thought spellbound… However, this thought, protected within the departments of science from the dreams of the spirit-seer, has to pay the price: world domination over nature turns against the thinking subject itself; nothing is left of it except that ever-unchanging

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“I think,” which must accompany all my conceptions. Both subject and object are nullified.\(^{43}\)

Horkheimer and Adorno lament the loss of both the self and the ineffable as Enlightenment thinking negates anything that can't be quantified; collateral damage indeed. The repercussions of a perpetual nature/culture clash are also the main topic explored by Janet Tavener in the photographs she produced in response to *The Drowned World* (fig. 44), although the damage she highlights is more physical than metaphysical.

![Figure 44: Janet Tavener, Broken Surface I-III, 2015, archival print on Canson Baryta, 90 x 90cm. Image courtesy: Janet Tavener.](image)

Tavener’s interpretation of the novel was heightened by the fact that she read it while she was in Florence, Italy. The artist was staying just two blocks from the Arno river and she became aware that in 1966 it breached its banks and inundated the city in the worst flood since 1557. According to Tavener “More than 100 people were killed, and millions of art masterpieces and rare books were damaged and destroyed.”\(^{44}\) She explained when interviewed as primary research for this project that this historical evidence brought home the fact that the “constant drowning of the city” wasn’t wild conjecture, “it was already happening.”\(^{45}\) As Tavener wrote in the *Mapping The Drowned World* catalogue:

> Reading *The Drowned World* while I was absorbed in all of this history was a major influence on the way that I processed the novel. In the series of photographs I made in response, *Broken Surface*, ornate picture frames that once contained masterpieces have been

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\(^{45}\) All Janet Tavener’s quotes (unless otherwise noted) are from an interview I conducted with the artist in Sydney on 9 November 2015. The complete transcript is in: Appendix B, 248-254.
picked up by the current and sunken deep into the warming waters…
the frames are a symbol: an artefact of culture in a battle that nature
has won.\textsuperscript{46}

In recent years, philosophers have sought to re-think the nature/culture relationship,
to free us from being locked in an endless with battle seemingly limitless bipartisan
collateral damage.

Instead of thinking of humanity as separate from nature, contemporary thinkers such
as American environmental activist and journalist Bill McKibben, American cultural
theory heavyweight Donna Haraway and the Australian philosopher Warwick Mules
are urging us to conceptualise ourselves as part of nature. In 1990, in his very early
book on the greenhouse effect (as the climate crisis was then known) McKibben said,
“[F]inally, our mistaken sense of nature as eternal and separate will be washed away
and we will see all too clearly what we have done.”\textsuperscript{47} In her 2015 article for the
Environmental Humanities journal, Haraway asked us to imagine that we are part of
“rich multispecies assemblages”.\textsuperscript{48} In his 2014 book, With Nature, Mules said,
“Instead of thinking of nature as the negation of the human, a positive philosophy
begins with the fact that nature and the human are part of the same being.”\textsuperscript{49}

Here, again, we find that Ballard was decades ahead of the pack. In The Drowned
World he repeatedly conjures up beautiful images of nature and culture not as
opposites, but as entwined: two parts of a whole. As in this passage:

In the early morning light a strange mournful beauty hung over the
lagoon; the sombre green-black fronds of the gymnosperms,
intruders from the Triassic past, and the half-submerged white-faced
buildings of the 20th century still reflected together in the dark mirror
of the water, the two interlocking worlds apparently suspended at
some junction in time, the illusion momentarily broken when a giant
water-spider cleft the oily surface a hundred yards away.\textsuperscript{50}

\textsuperscript{46} Clement, Mapping the Drowned World: Six Artists Respond to J.G. Ballard’s Novel the Drowned
World, 21.
\textsuperscript{47} McKibben, The End of Nature, 7.
\textsuperscript{48} Donna Haraway, "Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin,"
\textsuperscript{49} Warwick Mules, With Nature: Nature Philosophy as Poetics through Schelling, Heidegger, Benjamin,
and Nancy (Bristol: Intellect, 2014), 5.
\textsuperscript{50} Ballard, The Drowned World, 10.
As in the previous paragraph, Ballard often uses the image of reflection to evoke the intermingling of nature and culture. In another example the sun is made multiple by mirroring:

Now and then, in the glass curtain-walling of the surrounding buildings, they would see countless reflections of the sun move across the surface in huge sheets of fire, like the blazing facetted eyes of giant insects.51

In these passages, instead of the Enlightenment notion that we should examine nature in order to set ourselves both above and apart, Ballard presents nature and man-made constructions visually joined. In doing this he highlights the fact that nature and culture are one and the same, inextricably entangled.

The entwinement of nature and culture that Ballard describes was made physically manifest in the Mapping The Drowned World exhibition. In Jon Cattapan’s The City Submerged paintings electric lights are indistinguishable from reflections cast by moonlight filtered through leaves and everything is united by watery washes. Janet Tavener’s images also seem to picture a reunion, even though they were conceived of as evidence of the destructive fallout of a nature/culture clash. Her ornate gilded frames are suspended in water, joined through the inexorable power of nature. And the supposed opposites of nature and culture also become one in my Post-Preamonitionism 2 installation. Rectilinear steel structures, representative of the man-made architecture of a model metropolis, stain the crystalline white peaks of a miniature landscape. These salty mountains in turn corrode the diminutive abstract city in a symbolic and inevitable merging which encapsulates both the beauty and the terror of the sublime.

In fact, all of these artworks are beautiful, if not terrifying, but they also evoke a certain melancholic mood: in The Drowned World the images of nature and culture entwined are infused with a distinct whiff of decay. But they are also haunting, hypnotic and languid. However, as a critique of the Enlightenment, the peace in the novel must be shattered and Ballard does this dramatically by introducing the character of Strangman.

51 Ibid., 36-37.
The white man cometh (Strangman in a strange land)

In *Dialectic of Enlightenment* Horkheimer and Adorno argue that the dictatorial will to power, the desire to subjugate other people, goes hand in hand with the urge to exploit nature. “What human beings seek to learn from nature is how to use it to dominate wholly both it and human beings,” they say. “Nothing else counts.” In *The Drowned World*, Ballard’s critique of the Enlightenment, the character of Strangman illustrates that mankind’s urge to conquer is not confined to the territory of nature.

Strangman disrupts the soporific ennui of the other characters in the novel. Before we even know his name or his reason for visiting the lagoon, Ballard signals Strangman’s role as a symbol of domination by likening him to a charioteer and by saying that his face bore “an expression of exhilarated conquest.” And Strangman’s arrival is announced with the militaristic language of war. His boats are described as an “advancing armada” and instead of sliding through the water and slipping past the vegetation they crash through the trees whose branches “fell like vanquished standards.” In a none too subtle move, Ballard dresses this Caucasian character all in white and makes him an albino for good measure. Strangman, a trebly pale man, is a symbolic white conquistador with all the cruelty and violence this image suggests.

In her book *J.G. Ballard’s Surrealist Imagination: Spectacular Authorship*, Jeannette Baxter casts Strangman in the role of Situationist prankster. She describes him as “A Surrealist variation on the Situationist as ‘radical subject’ who ‘desires the destruction of the mediations of the spectacle’.” For Baxter, Strangman is something of a street-wise hero who comes along to mix things up, upset the status quo, and provoke radical rethinking.

But Strangman is not an “avant-garde artist” as Baxter insists. What Baxter refers to euphemistically as “a project of physical and psychological refashioning” is actually a series of acts of torture and cruelty perpetrated against Kerans, Bodkin and Beatrice in order to cow them into submission. His antics are not ‘situations’ as she

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53 Ballard, *The Drowned World*, 75. The charioteer is a classic symbol of Rome and civilisation as a conquering process.
54 Ibid., 79, 78.
56 Ibid., 32.
57 Ibid.
says, “designed to jolt the passive trio from their soporific existence.”58 In reality, Strangman is a psychopath.

Strangman also ostentatiously wears the mantle of white supremacy. He is captain of a paddle steamer, symbolic cliché of the old, segregationist American South, and is the undisputed master of a gang of black men who bear denigrating slave-style names such as Big Caesar.

Ballard describes Strangman’s black crew as being both subservient and physically monstrous. Big Caesar, for example, is compared to a both a deformed hippo59 and “an immense ape”60 and is described as “a huge hunchbacked Negro in a pair of green cotton shorts. A giant grotesque parody of a human being”.61 Later, mimicking the crass tradition of blackface musical, Ballard has the crew break into a spirited rendition of ‘Dem Bones, Dem Bones.’62

The intensity of the racism inherent in Ballard’s characterisations of Strangman’s crew is, frankly, both startling and repugnant. In his essay, ‘What Are We to Make of J.G. Ballard’s Apocalypse?’, American sci-fi critic H. Bruce Franklin described the images of black men created by Ballard as “so disgustingly racist that they might embellish a Ku Klux Klan rally.”63 But like Baxter, many critics choose to ignore this aspect of Ballard’s writing, or try to excuse it as being just a product of the times.64 This may be so, but it seems just as likely that Ballard’s racism (like his sexism, which will be addressed in Chapter Three) was also an ingrained part of his belief system which he allowed to seep through into his writing. But, offensive as it is, racism in The Drowned World (as played out by Strangman) does at least make a point.

58 Ibid., 30.
60 Ibid., 128.
61 Ibid., 82.
62 Ibid., 86.
63 This particular quote refers to imagery from The Crystal World. But Franklin also discusses racist imagery in The Drowned World, and he acknowledges that Big Caesar has an “exact counterpart” in The Crystal World. H. Bruce Franklin, "What Are We to Make of J.G. Ballard's Apocalypse?,“ in Voices for the Future: Essays on Major Science Fiction Writers Volume Two, ed. Thomas D. Clareson (Bowling Green University Popular Press: Bowling Green, Ohio, 1979), 98.
64 Pringle, for example, points out that if Ballard appears to be sexist it is not women alone that he thinks poorly of; he is equally dismissive or contemptuous of the so-called lower classes and other races. Pringle doesn’t judge Ballard for this, he merely explains that his racism, sexism and classism are no doubt products of his upbringing and the conventions of his own class. David Pringle, Earth Is the Alien Planet: J.G. Ballard's Four-Dimensional Nightmare, First ed., The Milford Series: Popular Writers of Today (San Bernardino, Calif.: Borgo Press, 1979), 44-46.
Strangman is the dark, shameful shadow of the Enlightenment: the will to power, the urge to colonise and dominate both territory and people of other races. His racism highlights the stunning hypocrisy behind Enlightenment ideals, the hypocrisy that, for example, allowed the slave-owning Enlightenment hero Thomas Jefferson to be able to write, ‘All men are created equal’ without a hint of irony. Even Ballard himself knew that Strangman is not just a strange-man, he is a bad man. “Racing around the lagoons like the delinquent spirit of the drowned city, apotheosis of all its aimless violence and cruelty,” he wrote, “Strangman was half-buccaneer, half-devil.”65 Without a doubt, Strangman symbolises the dark heart of civilisation.

Strangman conquers using intimidation and brute force, but since the Enlightenment, science has also been a key weapon in subjugation, particularly in the battle to control and exploit nature.

**Blinded by science**

In order to conquer fear, Horkheimer and Adorno argue, Enlightened man subjects everything to the violent, reductive process of quantification; if it cannot be assimilated into a mathematized world, they argue, it doesn’t exist.66 “For the Enlightenment,” they say, “anything which cannot be resolved into numbers, and ultimately into one, is illusion”.67 But they also conclude that this approach is ultimately self-defeating. Throughout *The Drowned World*, Ballard repeatedly highlights the futility of attempting to exert (or maintain the illusion of exerting) control over nature through the tropes of science, including: cartography, taxonomy and horology.

In *The Drowned World*, Kerans, Bodkin and Hardman, led by Colonel Riggs, are all part of a bio-science team sent to the lagoons to chart the emergent flora and fauna. Yet by the second page of the novel Kerans has already admitted that their scientific mission is futile. “The biological mapping had become a pointless game.”68 he says.

The fact that Ballard has made their mission mapping makes its pointlessness even more symbolic, for the rational science of cartography has been associated with the

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67 Ibid., 4.
human will to power for millennia. As French geographer Yves Lacoste put it in his 1973 essay for *Antipode* journal, “[The map] is a way of representing space which facilitates its domination and control.” From the very beginning Ballard undermines mankind’s drive to dominate nature and highlights the inadequacies of science in the face of the overwhelming forces of the natural world.

Throughout the novel, Colonel Riggs is used to symbolise the old order: the time of rational science and social niceties. His efforts to maintain a veneer of civilization, such as winding clocks in abandoned cities, are mocked:

Kerans wondered whether the clock was not in fact working, attended by some mad recluse clinging to a last meaningless register of sanity, though if the mechanism were still operable Riggs might well perform that role.

In *The Drowned World*, relying on the rational tropes of science is not only futile, it is slightly unhinged. Roy Ananda makes much the same point in the series of objects he made for *Mapping The Drowned World*, titled *The Bodkin Experiments*. As he explained when interviewed:

One of the very first senses I had from the book is that there is this pull on humanity; the rational thing to do was to go north and go back to Greenland. But the ontology of this new world was acting on these people, like Hardman and Kerans, and pulling them south. So this sense of human beings being pushed and pulled by these very elemental forces was really strong… We try and measure those things with instruments but they [the instruments] are ultimately quite futile.

Ananda went on to add, “There is a perverse humour in making a functional object useless.” And the artist does just that in his series *The Bodkin Experiments.*

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71 In *The Drowned World*, Riggs is known to have a history of winding cathedral clocks before leaving the drowned cities. Ballard, *The Drowned World*, 57.
72 All of Roy Ananda’s quotes (unless otherwise noted) are from an interview I conducted with the artist in Sydney on 7 October 2015. The complete transcript is in: Appendix B, 227-235.
Lieutenant Hardman is the first character in the novel to succumb to the collective nightmare of a ferocious swollen sun. Ananda’s two alarm clocks with their hands joined (fig. 45) are a tribute to Bodkin’s failed attempt to use science to disrupt Hardman’s nightmares by giving him a double alarm clock set to ring every 10 minutes. 73 Sarcastically acknowledging the pointlessness of this enterprise Kerans says to Hardman, “Don’t forget the clock, Lieutenant. If I were you, I’d set the alarm so that it rings continuously.” 74

*The Bodkin Experiments* also include: a compass on a rotating portable record player unable to ever point due north; a thermometer under a heat lamp incapable of registering ambient temperature; a stethoscope with multiple heads, like a hydra; and a sundial unable to tell time, rendered useless by 12 small spotlights (figs. 53, 54, 55). Ananda’s sculptures demonstrate, with dark humour and wit, the futility of a methodical, technologically driven scientific response to the post-apocalyptic world of Ballard’s novel.

And, reading *The Drowned World* as a critique of the Enlightenment, Ballard in turn reminds us that this approach, in which man is seen as an intellectual, rational being separate from nature, is both counter-productive and inaccurate. As he makes very clear in this passage:

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73 Ballard, *The Drowned World*, 34.
74 Ibid., 36.
[Riggs] was still obeying reason and logic, buzzing around his diminished, unimportant world with his little parcels of instructions like a worker bee about to return to the home nest. After a few minutes he [Kerans] ignored the Colonel completely and listened to the deep subliminal drumming in his ears, half-closed his eyes so that he could see the glimmering surface of the lake dapple across the dark underhang of the table.\(^75\)

Using yet another image of reflection, Ballard eloquently illustrates the ridiculous impotence of our attempts to enforce control and dominate the natural world, and instead, once again, he emphasises the interconnectedness of nature and culture.

**Myth-busting**

For Horkheimer and Adorno, the urge to dominate nature through science is not only futile, it is a damaging process redolent with loss. “On their way toward modern science human beings have discarded meaning,” they lament.\(^76\) They argue that although the Enlightenment sought to quell superstition with empirical reason, in actual fact, both myth and science fulfil the same role: they are attempts to understand the mysteries of the world in order to dispel fear. “Humans believe themselves free of fear when there is no longer anything unknown,” they assert.\(^77\)

But Horkheimer and Adorno go on to argue that mankind has merely replaced one form of superstition with another, saying, “Mathematical procedure became a kind of ritual of thought.”\(^78\) And for them, this cultish worship of scientific rationality is inherently totalitarian:

> Human beings purchase the increase in their power with estrangement from that over which it is exerted. Enlightenment stands in the same relationship to things as the dictator to human beings. He knows them to the extent that he can manipulate them.

\(^75\) Ibid., 68.
\(^76\) Horkheimer and Adorno, *Dialectic of Enlightenment: Philosophical Fragments*, 3.
\(^77\) Ibid., 11.
\(^78\) Ibid., 19.
The man of science knows things to the extent that he can make them. Their “in-itself” becomes “for him.”

In *The Drowned World*, as already discussed, Strangman embodies man’s dictatorial will to power. This character demonstrates his dominion over the natural world by his mastery of a pack of ravening alligators and a team of black men, both of whom seemingly kowtow to his will. Later he seeks further control over nature by draining the lagoon in which the novel is set, allowing the vestiges of the civilised world to re-emerge.

Yet, just days after reclaiming the city, Strangman’s own thin veneer of civilisation starts to slip. He is seen dancing around a fire to the beat of bongo drums as he and his men act out the clichéd tropes of savagery. A short time later they perform a kind of makeshift voodoo ritual in which they systematically torture Kerans as a stand-in for Neptune in an attempt to dispel their own fear of the sea.

In this way, Ballard links Strangman, pale avatar of civilisation’s dark heart, back to savagery, mythology and fear. In doing this he echoes Horkheimer and Adorno’s argument. Both *Dialectic of Enlightenment* and *The Drowned World* make the same point. Myth and science, civilisation and savagery, nature and culture: these are not diametrically opposed opposites, but simply different iterations of the same things.

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79 Ibid., 6.
81 “Dimly he was aware of his torn wrists and bruised body, but he sat patiently, stoically acting out the role of Neptune into which he had been cast, accepting the refuse and abuse heaped upon him as the crew discharged their fear and hatred of the sea.” Ibid., 124.
Dialectic of The Drowned World

I first read *The Drowned World* many years ago, in my late-teens/early-twenties, long before I had even heard of The Enlightenment. Thanks to Ballard, I have known my entire adult life that a battle with nature is one we cannot win, and that science fictions can be just as educational as science facts.

Since it was first published in 1962, Ballard’s novel *The Drowned World* has been reprinted in more than 36 editions and translated into at least four languages.\(^{82}\) It has never been out of print. The publication of this slim sci-fi novel preceded the English language translation of *Dialectic of Enlightenment* by 10 years. *The Drowned World* is not as well known as a critique of the Enlightenment as Horkheimer and Adorno’s effort (in fact this research is the first to overtly position it in this way) but it has almost certainly been read by more people.\(^{83}\) And it is just possible that it has been even more influential on shaping public attitudes. And art has a role to play here too.

Significantly, it was through re-reading the novel through the lens of my own art practice that I realised that *The Drowned World* could be interpreted as a critique of the Enlightenment. In observing the materiality of my own sculpture, watching salt

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\(^{82}\) It is surprisingly difficult to get statistics on published editions as there isn’t one centralised database for such things.

\(^{83}\) As Habermas put it, the influence of this book “stands in curious relation to the number of its purchasers.” He is speaking in the context of Germany, but a broader extrapolation seems plausible. Habermas, “The Entwinement of Myth and Enlightenment,” 107.
and rust comingle and merge, I realised that Ballard too was presenting nature and culture as entwined. The relationship between nature and culture that Ballard so evocatively conjured through his imagery of a ruined city doesn’t have to be read as a clash of opposites.

In the *Mapping the Drowned World* exhibition, primary research conducted for this project, Jon Cattapan, Janet Tavener and Roy Ananda also re-read the novel through their own art practices and they each created artworks which support my interpretation of *The Drowned World* as a critique of the Enlightenment. They identify the contingency of our supposed dominance over nature, the collateral damage caused by our attempts at this control, and the failure of science to adequately respond to the crisis we have created. Together, in *Mapping The Drowned World*, we presented this work to the public, opening up dialogue and prompting debate.

In both Ballard’s critique of the Enlightenment, and in Horkheimer and Adorno’s *Dialectic of Enlightenment*, man’s true nature is revealed: the urge to dominate both nature and individuals is not characteristic of the savagery that civilisation seeks to dispel with the illuminating light of reason, it is the dark heart of humanity itself.

Ballard’s critique of the Enlightenment was (and is) a warning; a prescient vision of a post-apocalyptic future brought about by our arrogant attempts to dominate the natural world. But, as we shall see in Chapter Three, *The Drowned World* can also be read as a utopian vision, a dark glimmer of hope in the age of the sixth great extinction.
Additional Images

The exhibition *Mapping The Drowned World*

This group exhibition was initiated and coordinated as primary research for this project. *Mapping The Drowned World* has held 8-31 October 2015 at SCA Galleries, Sydney College of the Arts, University of Sydney, Balmain Road, Rozelle, NSW, Australia.


Figure 49: Gosia Włodarczak, *Past As Future, Found in Translation, Interpretation Drawing #6, THE DROWNED WORD 1*, 2015, digital photo and drawing collage, instruction for the viewer A5 booklet, 33 x 48.5cm. Image courtesy: Gosia Włodarczak.


Figure 52: Mapping the Drowned World installation. Roy Ananda, *The Bodkin Experiments*, 2015. Photo: Peter Burgess.
Figure 53: Roy Ananda, *The Bodkin Experiments* (stethoscopes detail), 2015, mixed media, dimensions variable. Photo: Kristina Shapranova.

Figure 54: Roy Ananda, *The Bodkin Experiments* (compass detail), 2015, mixed media, dimensions variable. Photo: Kristina Shapranova.
Figure 55: Roy Ananda, *The Bodkin Experiments* (sundial detail), 2015, mixed media, dimensions variable. Photo: Kristina Shapranova.

Figure 56: A gallery visitor reading the catalogue on opening night. Photo: Kristina Shapranova.
Chapter Three: It’s all about Eve

In the beginning, according to the Bible at least, there was Adam and Eve. At the end, in the post-apocalyptic future of J.G. Ballard’s novel *The Drowned World*, there is the main character, Robert Kerans, who is described more than once as a kind of inverted Adam, more last man than first.¹

The original Adam may have gone forth and multiplied (as well as subjugated the earth, the futility of which is one of the over-arching themes of the novel) but Kerans is much more interested in devolution and extinction than fruitful procreation. However, Ballard has, as a beneficent and resolutely heterosexual god, nonetheless furnished him with a female counterpart, Beatrice Dahl.

Beatrice is the only woman in *The Drowned World* and the first time we see her Ballard describes her thus:

> Beatrice Dahl lay back on one of the deck-chairs, her long oiled body gleaming in the shadows like a sleeping python.²

For Ballard, Beatrice is not only an Eve for Kerans as Adam, she is the insidious serpent as well. Ballard is not only heterosexual, he’s unapologetically sexist.

In fact, it is something of an understatement to say that Ballard is not known for his sensitive or nuanced portrayal of women. Even David Pringle, one of the author’s earliest and most consistent supporters, was forced to admit in his 1979 critique of Ballard’s work, *Earth is the Alien Planet*, that Ballard’s female characters are generally either stupid and shallow, or highly irritating, or both. At best they are alluring sirens, at worst threatening femme fatales.³ Some 25 years and many more

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¹ “As Kerans sometimes reminded himself, the genealogical tree of mankind was systematically pruning itself, apparently moving backwards in time, and a point might ultimately be reached where a second Adam and Eve found themselves alone in the new Eden.” This is the first mention of Adam and Eve, but there are many more. J.G. Ballard, *The Drowned World*, first ed. (New York: Berkley Medallion Books, 1962), 22.

² Ibid., 23.

books by Ballard later, Andrzej Gasiorek came to much the same conclusion in his monograph, *J.G. Ballard*.4

And there is no denying it, Beatrice, as we find her in the ‘present’ of The Drowned World, is less than impressive. She is listless on a good day and more than a little neurotic. Ballard seems to have written Beatrice as a character custom-built to be played by Karen Black (fig. 57) in her 1970s prime: dishevelled, ditsy, desirable and drunk.

Figure 57: Karen Black would have been perfect to play Beatrice as Ballard wrote her. Graphic: Peter Burgess.

I first read The Drowned World at an impressionable age, and I was duly impressed. But that doesn’t mean I wasn’t critical. As a young woman I was incensed by Ballard’s overt sexism and for decades the idea of somehow recuperating Beatrice, the only female character in a book that had so much influence on shaping my worldview, had been simmering in the back of my mind. I began this research determined to see if there was more to Beatrice Dahl.

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4 Although he does point out that Ballard doesn’t seem to think much of men either. Andrzej Gasiorek, *J.G. Ballard* (Manchester: Manchester University Press, 2005), 30.
At first Beatrice seems like an unlikely candidate for even the most determined feminist project of recuperation. Yet by reading between the lines, carefully mining the original text for clues and using a strategy employed by both fan-fiction and post-colonial literature, I have written an additional chapter which slots into the existing plot framework of The Drowned World. This piece of creative writing provides Beatrice with a credible backstory and reveals the hitherto hidden complexity of her character.

And significantly, an exercise that was initially fuelled by long stored youthful outrage proved to be an important methodological tool in this research. My approach to analysing The Drowned World became three-pronged: re-writing joined re-reading and re-interpreting through the lens of art. It was by immersing myself deeper and deeper into Ballard’s imaginary world in order to recuperate Beatrice that I began to realise that, despite all appearances to the contrary, The Drowned World might actually offer a utopian vision perfect for the post-climate-change age.

Beatrice Dahl: J.G. Ballard’s hidden heroine

In the first chapter of The Drowned World, ‘On the Beach at the Ritz,’ Kerans is coming to understand that his job of mapping the lagoons and the mutated wildlife there is a pointless exercise. The bio-science team which he works for will soon return to Greenland and the last vestiges of civilisation. They are preparing to leave behind the extreme heat, oppressive fecundity and damp glamour of The Drowned World. But by the end of the second chapter in the novel, ‘The Coming of the Iguanas,’ Kerans has decided to disobey orders and remain behind in the lagoon.

However, refusing to leave is actually Beatrice’s idea. “Tell me, Robert, seriously,” she says, “if I decide to stay on here, would you?” In his response, which is characteristically both sexist and dismissive, Kerans refers to Beatrice as Eve for the first time. And in this dual biblical role as both Eve and seditious serpent it is Beatrice who takes the initiative; she is the catalyst, the leader of their rebellion against

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5 See for example: Peter Carey’s 1997 novel Jack Maggs in which the author re-works the character Magwitch from Great Expectations by Charles Dickens; and The Wide Sargasso Sea, 1966, by Jean Rhys, which is a feminist prequel to Charlotte Brontë’s Jane Eyre that provides a backstory for Mrs Rochester.

authority, our first clue that she is more than the vapid, whiskey soaked temptress that Ballard presents.

In fact, the text is littered with unanswered questions that point to the fact that there is more to Beatrice Dahl. Like all of Ballard’s characters she is only vaguely sketched. As Duncan Fallowell put it in his now infamously vitriolic review, “Characterisation. He [Ballard] is quite hopeless at this. Nowhere in his writing can I recall a name actually turning into a face.”7 Fellow Ballard critic Michel Deville makes the same point with more tact, saying, “Ballard’s talents lie in the sustained power of imagery and ideas, rather than in the realist description of people and relationships.”8

Character or caricature, either way all we know for sure about Beatrice is that she is lithe, beautiful, and has dark hair. She was raised by her (un-named) eccentric, art collecting grandfather because her parents died shortly after she was born. When Kerans and the bio-science team arrive (six months prior to the action in the novel) they find Beatrice living alone in her grandfather’s penthouse apartment which seems to have an endless supply of alcohol and frozen steaks. Beatrice (like most of the bio-science team, with the exception of Colonel Riggs) has already started having the collective nightmare of a huge pulsating sun.

It’s not much to go on. In actual fact, facts in general are pretty thin on the ground in *The Drowned World*. How old is Beatrice? How long has she lived alone? How has she kept her generator and air conditioner going? How has she evaded the bands of marauders on their way north? How has she survived at all? None of the men in *The Drowned World* seem to ask these questions and Ballard doesn’t offer any answers. What is clear is that if she had always been the ineffectual ninny that Ballard describes, she never could have made it into the present of the novel.

Chapter 3.5: ‘The Penthouse Pool,’ the supplementary chapter written as part of this research, starts with the scanty evidence Ballard does provide. We know that Kerans is 40. He always describes Beatrice as a girl, but to make their relationship plausible (and not too creepy) I’ve placed her age at 27 years old. Based on Ballard’s exodus timeline,9 in Chapter 3.5 Beatrice has been living alone for 10 years. The action is set

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9 As outlined in Chapter Two, all major cities were abandoned 20 years prior to the action of the novel and the last stragglers left the Ritz hotel 10 years later. Ballard, *The Drowned World*, 21, 10. See timeline in: Appendix A, 226.
just before Kerans visits her apartment in fourth chapter of the novel, ‘The Causeways of the Sun.’ When he arrives he finds that her air conditioning is broken and Beatrice is wearing nothing but a black towel while drinking whiskey for breakfast. The interstitial chapter below is a piece of creative writing. The prose is not an attempt to mimic Ballard’s, but the story does conform to the facts and temporal continuity of the novel and it follows the logic of his imaginary world.

**Chapter 3.5: The Penthouse Pool**

Beatrice was awakened by a trickle of sweat pooling between her breasts. It was very hot, moist and dark. Covered in sweat and still caught in the throbbing, murky realms of her dream, Beatrice wasn’t sure at first where she lay. But slowly, semi-consciously her mind filtered through its sensory information and decided that the soft, damp tangle she was sleeping in was the sweat drenched sheets of her bed, not a nest of leaves on the ground. She wasn’t outside, not any more.

Armed with the knowledge that she wasn’t in any immediate physical danger, Beatrice’s mind let itself be drawn back down into its own treacherous depths, lured and lulled by the mesmerising reverberations of her own heartbeat, mirrored in the pulsations of her nightmare sun.

When Beatrice next awoke a few hours later, it was by a fully formed thought. ‘The air conditioner is on the fritz.’ It was even hotter now and there was no mistaking where she was this time. Although the light had a greenish tint, filtered as it was through the leaves of the enormous gymnosperms outside, its dappled quality was geometric, sliced into oblique lozenges by the Venetian blinds of her penthouse apartment twenty stories above the waterline of the lagoon.

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10 After asking Kerans to stay behind with her in Chapter 2 of *The Drowned World*, we next encounter Beatrice the following day, in Chapter 4. Chapter 3 takes place on the same day as Chapter 2 and doesn’t feature Beatrice.
Beatrice lay in bed and considered fixing the generator to get the air-con going, but decided against it. It was only in the mid nineties inside and besides Robert would probably pop in later. She decided to let him do it. He enjoyed the pantomime of looking after her, overtly displaying his masculine prowess in such manual tasks. Smiling to herself she thought, ‘Who am I to deny him such a simple pleasure?’

Finally deciding on a course of action, Beatrice got up, wrapped a black towel around her midriff in a concession to getting dressed and poured herself a large tumbler of whiskey. ‘Cheers,’ Beatrice said to herself taking a small sip and raising her glass, ‘Here’s to the end of the world.’

Of course the world had been ending Beatrice’s whole life. By the time she was born the novelty of jet skiing through Hyde Park and punting to Piccadilly Circus had well and truly worn off. At first the rising temperatures and even the rising seas had been welcomed by an inland city used to indifferent summers and freezing winters. But the days of laughingly referring to London as the ‘Venice of the North’ were long gone. Giant mosquitos, malevolent new strains of malaria and chronic food shortages made the joke wear thin. Most of the city’s citizens had already heeded the UN call to move north.

Insulated by wealth and the influence it inspired, the Dahl family stayed behind. Beatrice’s grandfather instinctively tapped into an almost genetically-coded sense of entitlement and slipped easily into his ancient ancestral role as the Duke of his own mini-fiefdom. But instead of a castle keep on a rocky promontory, he had a penthouse compound marooned in the jungle above a steadily rising lagoon. Served by a small but fiercely loyal band of neo-serfs, Bernard and his daughter Sophia lived the cloistered, dissolute life of the privileged.

Nobody expected Beatrice’s mother to fall pregnant, least of all Sophia herself. Fertility had been in decline for decades. It could almost be measured inversely by the explosion of life elsewhere:
the more the iguanas and alligators spawned the fewer human
babies were born. Sophia’s own birth had been something of an
event and during her whole short life she had only ever met one
other child. So when Beatrice was born twenty years later,
Bernard declared it a Dahl household holiday. A quiet man of
particular habits, he preferred to enjoy life vicariously through
art, books and the pleasures of others. He gave all his retainers
the night off and Sophia, too young, elated and full of her own
self-importance to be kept in her bed for long, the key to his
well-stocked wine vault.

The next morning, Bernard found his daughter floating dead in
the swimming pool, one hand still loosely clutching a bottle of
his best champagne, the sequins of her dark blue evening gown
winking like scales on a giant fish. Next to her was the
bodyguard who Bernard had always suspected was Beatrice’s
secret father, his paternity finally confirmed by his futile
attempt to save her mother from drowning. Neither had ever
learned to swim.

Beatrice finished her drink. It was 6am. She let her hand rest
on the kitchen counter in a small patch of sunlight which had
infiltrated the blinds: searing but not yet incendiary. She
dropped her towel, opened the sliding glass doors and walked
outside. Crossing the green tiles, Beatrice dove headfirst into
the tepid, leaf strewn water and using strong steady strokes
pulled herself through the same pool that had made her an
orphan. The irony of drowning in an already drowned world had
not been lost on her.

Later, lying back on a deck chair, her wet skin drying rapidly in
the oven-hot air and listening to the first raucous calls of the
iguanas far below, Beatrice recalled catching Colonel Riggs
leering down at her while she was in exactly the same position
yesterday. ‘Tiresome little martinet,’ she muttered to herself.
Beatrice had taken an instant dislike to the Colonel from the
very beginning. He carefully displayed a kind of faux-
paternalistic posturing, but she suspected his motives for
wanting her at Camp Byrd were a little more pragmatic. She had heard rumours over the years of UN sanctioned breeding programs at the military run outposts in the Arctic Circle.

When Riggs and his testing station had shown up six months ago, the absence of any women in the crew had seemed to confirm these stories. Beatrice suspected that all the Camp Byrd ladies were getting busy at home: lying back, thinking of England, and vainly trying to keep the race going out of some misplaced sense of duty. Despite this, Beatrice didn't take the Colonel's appraising glances personally. In the time she had known him he hadn't shown any signs that he wanted to induct her personally into the reproductive program. His eyes on her felt more like a farmer sizing up the merits of some recalcitrant breeding stock.

Robert Kerans’ motives she understood were more complex. She had known for a while now that he had started to think of himself as some sort of symbolic reverse Adam: the last man instead of the first, sinking into the primordial ooze rather than crawling out. And yesterday he had inadvertently called her his Eve in a kind of backhanded compliment. She found his rangy strength, intensity and introspection attractive, but when they first met she wasn't immediately sure that they would become lovers. At thirteen years her senior, he could have just as easily cast himself in the role of father figure. From the beginning he had assumed that she was at best hapless, at worst helpless, and certainly in need of his protection. After ten years of looking after herself, Beatrice found she was happy to indulge this fantasy. It was hot. And she was tired.

Beatrice was seventeen when her grandfather died and the last of his loyal retainers fled north. She was alone. The design of the Dahl apartment had been shaped by a siege mentality. It held large reserves of food, fuel, and liquor, but Beatrice knew that these were not inexhaustible. The first time she left the apartment and filled her lungs with thick, hot, humid air, felt the full force of the sun like a smack in the face, and squished
the fetid wet silt at the edge of the lagoon between her toes it felt like a revelation.

She had experienced the outside before, but never alone and never so intimately. After a persistent, week-long campaign of needling her grandfather would occasionally allow one of his bodyguards to take Beatrice fishing or for a tour of the submerged city; always in the cruiser, safely shielded from both heat and danger. But with her feet on the ground and her senses assaulted, Beatrice found herself intoxicated by the heady fecundity and sheer power of the world around her. Up-close and personal, she was, for a time, utterly seduced.

Beatrice wilfully devolved. Shaded by towering plants, she burrowed into the cool leaves and muddy silt during the hottest parts of the day and slept, and restlessly roamed the city at dawn and dusk marvelling at the sublime beauty of a civilization crushed. At night, she tended smoky fires of damp wood, ringed by a perimeter of glowing reptilian eyes. Then one day, as if waking from a dream or suddenly shaking off an addiction, Beatrice no longer felt the need. She returned to the civilized luxury of her penthouse and only ventured out occasionally to look for supplies.

Along the waterline, the city had been thoroughly picked clean by the preceding waves of migration north, but Beatrice had discovered that few of these scavengers had been bothered to climb more than a few stories above the lagoon. The intense heat and the damp, fungus festooned confines of the stairwells in high-rise hotels, apartments and offices had proved to be natural barriers. All she had to do was climb high enough. In the same way, by strategically disabling her own elevator, Beatrice had managed to avoid detection by the few stragglers she had seen pass through the lagoon in the decade before Riggs and his military circus came to town.

Dry now and beginning to perspire heavily, Beatrice returned indoors, re-donned her black towel and poured herself another
drink. She still wasn't sure why she had let Riggs find her. Subconsciously she guessed she was tired of flying solo; she didn't want to be all alone at the very end. Riggs and his soldier boys were leaving, but Robert would stay, she was sure of it. And so would she.

Beatrice absent-mindedly surveyed the room: shelves stacked with books, 20th-century Surrealist masterpieces on the walls, and out the window the glassy surface of the lagoon; a white hot sheet of light refracting the relentless sun. Once again she was feeling its inexorable pull. But this time, instead of drawing her outside, the glowing orb had entered her dreams, bathing her nightly in its terrible aura, obliterating her, pulling her under. Soon it would be too hot.

In the preceding piece of creative writing many of the unanswered questions about Beatrice are addressed, for example her family history and her survival strategies are outlined. This supplementary text also alludes to her earlier adventures outside where she revelled in the heady fecundity of The Drowned World, while in the novel it is implied that she has always been cloistered in the penthouse, like a damsel in distress. But I posit that Beatrice’s apparent ineptitude can also be read as a conscious decision to pander to the male ego. This seems far more believable in the context of the world that Ballard himself created. The fact that Beatrice as a character seems so helpless is more likely to be a product of Ballard’s inherent sexism than a plausible (or even deliberate) plot device.

As noted earlier, many critics have acknowledged Ballard’s sexism, and it is often dismissed as merely being a sign of the times. After all, the novel was written in the early 1960s, before the sexual revolution and second wave feminism really had a widespread effect. As discussed in the previous chapter, his racism is often excused in much the same way, and while repugnant, in The Drowned World (through the character of Strangman) it did at least serve to convey a message. Sadly, the same cannot be said of his sexism.

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11 For example, Pringle puts Ballard’s sexism down to his class and background. Pringle, Earth Is the Alien Planet: J.G. Ballard’s Four-Dimensional Nightmare, 44-46. Gasiorek also glosses over Ballard’s sexism using the euphemism “conventional” to describe his gender roles. Gasiorek, J.G. Ballard, 30.
Or can it? Ironically, and no doubt unintentionally, it was the infuriating hopelessness of the only female character in *The Drowned World* that fuelled my desire to examine Beatrice much more carefully. And it was through this detailed re-reading and imaginative re-writing of the novel, a feminist process of recuperation, that I first realised that the novel can be re-read as a kind of post-apocalyptic Eden. The remainder of this chapter will outline this new analysis which radically repositions *The Drowned World* as a complex utopian vision. And Beatrice, as Ballard’s Eve, has a pivotal role to play in this narrative in which The End is actually a new beginning.

The beginning of The End

In a deliberately circular gesture, the last line of the interstitial Chapter 3.5 repeats the first line of *The Drowned World*, “Soon it would be too hot.” We come back to the beginning, which is of course also the beginning of The End.

In the final pages of Ballard’s novel, Kerans walks south, deeper into the jungle knowing he cannot hope to live for long. He willingly, wilfully, chooses death over attempting to survive in the last outpost of civilisation. In the very last line of the novel he is described as “a second Adam”. 12

Naturally, Ballard’s many biblical references in *The Drowned World* are not arbitrary, for his novel is not just science fiction, it is post-apocalyptic. And as a number of critics have noted, in the Western tradition, even secular apocalyptic stories can trace their lineage to the Bible, specifically the Book of Revelation in the New Testament. 13 Like the biblical narrative, *The Drowned World* is a story about The End, or perhaps more accurately, like all apocalyptic stories, it is about what happens after the end.

In his seminal work of criticism on apocalyptic literature, *The Sense of an Ending*, Frank Kermode argues that “to make sense of our lives from where we are, as it were, stranded in the middle, we need fictions of beginnings and fictions of ends, fictions which unite beginning and end and endow the interval between them with meaning.”

In her book *Apocalyptic Transformation*, Elizabeth Rosen, following Kermode, concurs saying, “Apocalypse is a means by which to understand the world and one's place in it. It is an organizing principle imposed on an overwhelming, seemingly disordered universe.” So what sense can we make of our world by reading, re-reading and re-writing *The Drowned World*?

At first glance, *The Drowned World* seems unapologetically nihilistic, a criticism often levelled at Ballard. After all, the author is known for his pessimistic imagination. As discussed in Chapter One, the term Ballardian specifically refers to his take on “dystopian modernity” and “bleak man-made landscapes.” But *The Drowned World*

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15 Rosen, Apocalyptic Transformation: Apocalypse and the Postmodern Imagination, xi.
16 For example, Fallowell accuses Ballard of being a “prophet of doom”. In fact, Fallowell sees Ballard more as an ambulance chaser than a prophet, he seems to think that Ballard profits from human misery in an unsavoury way. Fallowell, "Ballard in Bondage," 60.
is not a dystopian novel; it fails all standard definitions. One thing that we can glean from the novel is that Ballard’s post-apocalyptic end actually offers a new beginning.

Rosen makes a distinction between what she calls ‘neo-apocalyptic stories’ (which are unrelentingly grim) and stories in the traditional biblical mode, which, despite being secular, draw on the fact that the apocalypse is inextricably linked to reward: the promise of a new heaven on earth. In these stories destruction is tempered by hope and the promise of redemption. And close inspection reveals that Ballard is indeed writing in the traditional apocalyptic mode. He offers both redemption and a certain kind of hope, perhaps more relevant now than ever before.

A non-place is a good place to be

In fact, Ballard’s novel can be read as a radical utopian vision. This may seem counter-intuitive, but it’s not as strange as it sounds. As noted in Chapter One, several critics have characterised Ballard’s writings as utopian in the past, but these arguments are generally supported by the fact that he seems to offer individuals (always solitary men) the chance of redemption through a journey of psychic transformation and fulfilment, an often brutal trip through the treacherous zones of his now infamous “inner space”.

However, the conclusion reached through this research is that The Drowned World can be read as utopian because it offers both hope and redemption to the many (not the select few) by picturing the end of the world as we know it.

Dutch Professor of Literature Rudolphus Teeuwen comes closest to supporting this argument. As he explained in his 2009 essay, ‘Ecocriticism, Humanism, Eschatological Jouissance: J.G. Ballard and the Ends of the World,’ utopia and visions of The End are inextricably linked:

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18 As outlined in Chapter One, hell may be a nasty piece of real-estate where nobody wants to live, but it’s not a dystopia. In a dystopia, citizens are oppressed or deprived of freedoms by systematic forces beyond their control. In Ballard’s novel there is no oppressive, Big Brother-style system of manipulation and state sanctioned domination as in Orwell’s classic dystopian novel, Nineteen eighty-four. For a good definition of dystopia see: Stevenson Sharon Stevenson, "The Nature of Outsider Dystopias: Atwood, Starhawk, and Abbey," in The Utopian Fantastic: Selected Essays from the Twentieth International Conference on the Fantastic in the Arts, ed. Martha A. Bartter, Contributions to the Study of Science Fiction and Fantasy (Westport, Conn.: Praeger, 2004), 135.


20 This phrase has been lifted from R.E.M.’s 1987 anthem, ‘It’s the end of the world as we know it (and I feel fine).’
Eschatology, the study of the end of the world, is utopia’s other. Utopia’s new world comes at the expense of the old one. Utopia is the genre of worlds meeting their ends, in the double meaning of the word “end”: purpose and demise. As a genre of purposeful worlds, it deals with incipient worlds, or reachings, gestures, intuitions, definitions or blueprints of or toward such worlds; as a killing genre it, sometimes implicitly, sometimes polemically, clears away old worlds and makes civilizations collapse.\(^{21}\)

Yet in his final analysis Teeuwen concludes that *The Drowned World* isn’t so much utopian as an example of eschatological jouissance, a phrase borrowed from Fredric Jameson which Teeuwen defines as taking “grim pleasure in the failure of the world.”\(^{22}\) Teeuwen argues that the novel has both dystopian and utopian characteristics. But ultimately, for him, it is a “prescient ecological disaster”\(^{23}\) which functions as a warning and call to action. And he is right. As argued in Chapter Two, *The Drowned World* is a warning, an invitation to re-examine our arrogant attitude towards the rest of life on earth, to slow down and to mitigate the damage we have already caused. But, as we shall see below, it can also be re-read as a utopian novel that, perhaps surprisingly, actually fits the three classic definitions of the genre.

In *The Drowned World*, Ballard pictures the present as the ruined past of the future. And he does this most evocatively through powerful images of a metropolis devastated by iguanas, insects, heat, water, sand, and vegetation: the myriad forces of nature. In the beginning of the novel we aren’t sure where this city is located, Kerans admits that he doesn’t know if he is in Berlin, Paris or London.\(^{24}\) The lagoons of *The Drowned World* are finally identified as London on page 69, nearly halfway through the slim novel. As Bodkin says, “Part of it used to be called London; not that it matters.”\(^{25}\) Here we start to see how Ballard’s vision can be read as utopian: it doesn’t matter where the drowned metropolis is, his ruined city is an idealised non-place, one of the classic definitions.

\(^{22}\) Ibid., 46.
\(^{23}\) Ibid., 39.
\(^{25}\) Ibid., 69.
The word utopia was invented by Thomas More in his 1516 novel of the same name. As Portuguese utopian scholar Fatima Vieira explains in *The Cambridge Companion to Utopian Literature*:

In order to create his neologism, More resorted to two Greek words – *ouk* (that means not and was reduced to *u*) and *topos* (place), to which he added the suffix *ia*, indicating a place. Etymologically, utopia is thus a place which is a non-place, simultaneously constituted by a movement of affirmation and denial.26

In describing the drowned cities, Ballard wrote, “Their charm and beauty lay precisely in their emptiness, in the strange junction of two extremes of nature, like a discarded crown overgrown by wild orchids.”27 Instead of a juxtaposition of two opposites, the golden crown of culture and the wild orchids of nature, Ballard insists that they are simply two extremes, equally beautiful manifestations of the same thing.

Throughout *The Drowned World*, Ballard reiterates this point by conjuring up beguiling images of nature and culture again and again, not as opposites but as entangled, two parts of a whole, situated in the ruined city:

Most of the plaster had slipped from the walls and lay in grey heaps along the skirting boards. Wherever sunlight filtered through, the bare lathes were intertwined with creeper and wire-moss, and the original fabric of the building seemed solely supported by the profusion of vegetation ramifying through every room and corridor.28

As we saw in the Chapter Two, such images of symbolic entwinement allow Ballard’s novel to be read as a critique of the Enlightenment that starts to offer a way out of an endless nature/culture battle.

According to Vieira, ever since the time of Thomas More there has been a “perennial duality of meaning of utopia as the place that is simultaneously a non-place (utopia) and a good place (eutopia).”29 And by using a metropolitan non-place (the city with no name and no fixed location, situated as it is on shifting sands and capricious lagoons) as a site in which nature and culture are entwined, we also start to see how

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28 Ibid., 56.
Ballard’s ruined metropolis can be read as an *eutopia* with an E, a good place, the second important definition of an utopia.\(^{30}\) Following Ernst Bloch, the third element necessary in a utopian vision is hope. As Vieira explains, Bloch’s emphasis on hope as “the principal energy of utopia” allows for the inclusion of diverse texts. “Utopia then is to be seen as a matter of attitude,” she says, “as a kind of reaction to an undesirable present and an aspiration to overcome all difficulties by the imagination of possible alternatives.”\(^{31}\)

*The Drowned World* conforms to all three of these key definitions of utopia. Ballard does offer hope, but not an unequivocally happy ending. His images of a ruined metropolis are mesmerising and beautiful, but they are also redolent with the heady scent of melancholia and decay. And this is no coincidence, for although Ballard’s utopia is extraordinarily fecund (life in myriad forms proliferates and thrives) the ascendency of humanity is on the wane.

In *The Drowned World* human fertility has been declining for decades and the central protagonist wants to literally re-join nature by leaving the lagoon and following the lure of his dreams in which a mesmerising, pulsating, primeval sun beckons him south. In the final chapter of the novel, ‘The Paradises of the Sun,’ Kerans walks deeper and deeper into the jungle, a sweltering, inhospitable environment he cannot hope to survive in. He willingly, wilfully, chooses death, the ultimate union with nature, over self-preservation. The utopian vision Ballard offers is a post-human world.\(^{32}\)

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\(^{32}\) Not post-human in the sense of the augmented human, post as in after humanity has passed.
A world without us

At first, a utopia without people seems at best ironic, at worst nihilistic and self defeating. This last is what led Teeuwen to finally reject Ballard’s terminal vision in favour of a return to faith in humanist values. But others, such as Australian cultural theorist Claire Colebrook, have dared to follow Ballard’s lead into a post-human, post-humanist epoch; the era after the Anthropocene.

In 2000 Dutch atmospheric chemist Paul J. Crutzen and American biologist Eugene F. Stoermer (1934-2012) coined the phrase the Anthropocene in their article of the same title for the *Global Change Newsletter*. Crutzen further disseminated the phrase through his 2002 essay, ‘Geology of Mankind,’ in the journal *Nature*. The term the Anthropocene is used in these articles to describe the fact that the impact of humanity on the environment can now be read geologically. As Crutzen put it in his solo article:

> For the past three centuries, the effects of humans on the global environment have escalated. Because of these anthropogenic emissions of carbon dioxide, global climate may depart significantly from the natural behaviour for many millennia to come.

Crutzen and Stoermer date the inception of the Anthropocene to the late 18th century, specifically to 1784 when James Watt patented the steam engine. In August 2016, a group of international geologists, The Working Group on the Anthropocene (AWG), proposed to start the epoch in 1950. This date is a nod to the impact of the nuclear age and the post-war boom that fed “the great acceleration,” a synergistic combination of rising global population and exponentially increasing consumption of resources. It could also be argued that the Neolithic Revolution, when we stopped hunting and gathering and started farming, was the real beginning of the

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36 Ibid.
37 Crutzen and Stoermer, "The "Anthropocene"," 17.
Anthropocene, thereby making everyone except hunter-gatherer cultures complicit, if not equally to blame for the damage done.\textsuperscript{39}

Readers of this research may have noticed that up until this point the phrase the Anthropocene has been avoided. The Anthropocene is, by its very nature, hopelessly anthropocentric. Man is both literally and ideologically embedded in the concept, still the centre of all things.\textsuperscript{40} While Australian cultural theorist Claire Colebrook doesn’t overtly share this critique of the phrase the Anthropocene, she does advocate pushing humanity out of this central position. In her 2014 book, \textit{Death of the Posthuman: Essays on Extinction}, Colebrook suggests that in order to come to grips with climate-change, the key eschatological crisis of our age, we need to “begin to imagine a deep time in which the human species emerges and withers away”.\textsuperscript{41}

\textsuperscript{39} Heise, "Terraforming for Urbanists," 12-13. There is no doubt that, so far, the richest nations have contributed far more carbon emissions etc. than developing economies. Heise argues that the notion of the Anthropocene is problematic because it reinforces inequality: it blames everyone equally, all out of proportion to their impact on the planet. However, I think that current use of the phrase tends to focus on first world nations, marginalising others, and this is another reason for avoiding the phrase. Setting the start at the Neolithic Revolution would help to alleviate this discrepancy.

\textsuperscript{40} Haraway concurs that the Anthropocene is an anthropocentric concept. She points out that both bacteria and plants have done more over millions of years to shape the planet than we have. She argues that the Anthropocene is more accurately regarded not as an epoch, but as a boundary event, saying, “The Anthropocene marks severe discontinuities: what comes after will not be like what came before.” Donna Haraway, “Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin,” \textit{Environmental Humanities} 6 (2015): 160.

And this ‘thought experiment’ is exactly what Alan Weisman undertook in his 2007 bestselling book, *World Without Us*. The American journalist presents a utopian vision of the slate wiped clean. Humanity disappears overnight and, through processes both surprisingly swift and infinitesimally slow, the forces of nature render the toxic legacy of humanity benign.

The following passage, which describes the reclamation of a post-human New York City, has a positively upbeat and resolutely hopeful tone as Weisman (backed up by his experts) describes a future metropolitan landscape reminiscent of Ballard’s much earlier vision in *The Drowned World*.

> Within two centuries, estimates Brooklyn Botanical Garden vice president Steven Clemants, colonizing trees will have substantially replaced pioneer weeds. Gutters buried under tons of leaf litter provide new, fertile ground for native oaks and maples from city parks… Biodiversity will increase even more, predicts Cooper Union civil engineering chair Jameel Ahmad, as buildings tumble and smash into each other, and lime from crushed concrete raises soil pH, inviting in trees, such as buckthorn and birch, that need less-acidic environments.

Weisman’s whole premise is based on imagining human extinction. He quotes archaeologists and palaeontologists who say that extinction is both natural and inevitable. One of these is Doug Erwin, a palaeobiology curator at the Smithsonian Museum of Natural History in Washington DC. Discussing the Permian Extinction some 252 million years ago he says, “Then 95 percent of everything alive on the planet was wiped out. It was actually a thoroughly good idea.” Erwin adds, “The only real prediction you can make is that life will go on. And that it will be interesting.”

But Weisman himself clearly still subscribes to the conventional notion that the relationship between nature and culture is adversarial, and he seems to believe that

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42 Weisman’s tone is also vaguely xenophobic (at the very least weirdly patriotic) as he describes with obvious relish how native American trees will push out the earlier “pioneer weeds,” specifically the Chinese ailanthus tree. Alan Weisman, *The World without Us* (London: Virgin, 2008), 26-28.

43 Ibid., 28.

44 Ibid., 230, 232.
we can still win the battle. Instead of picturing nature and culture as entwined (as Ballard does, highlighting the fact that man is one small part of the larger ecosystem) Weisman continues to cling to the Enlightenment view of humanity as both separate and superior, and he holds out hope that we will “prove that intelligence really makes us special after all” by coming up with a solution to the climate crisis that does not involve our own extinction. In this way, Weisman too retreats at the last minute from the stark glare of Ballard’s utopian vision, but Colebrook boldly suggests that human extinction may not only be inevitable, it may also be desirable.

Colebrook argues that as we find ourselves in the midst of the sixth great extinction, spiralling towards ecological meltdown, the key philosophical questions have changed:

The overwhelming question that presses itself upon us—requiring incessant repression and working through—is not the question of how we humans were placed in a world in which the task was too hard, the conditions too bleak or the burden of freedom too confronting. The question is not one of how we humans can justify hostile life, but how we can possibly justify ourselves given our malevolent relation to life.

Colebrook’s question is rhetorical. Her conclusion is that we cannot continue to justify ourselves. She argues that for millennia we have proved that we are devoid of the good sense needed to know better than to destroy our environment, our planet, our home. “[M]an is not an animal who furthers his own survival,” she says. According to Colebrook, our current climate crisis (or something similar) was almost inevitable. As she puts it, the human species’ damaging of its own milieu is not an accident that we might otherwise have avoided. In other words, our appetite for consumption of the natural world may have become particularly voracious during the great acceleration, but the hunger itself is not an aberration.

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45 He does this repeatedly, but a clear example is his description of maintaining the George Washington bridge. “His bridges are under a constant guerrilla assault by nature... Del Tufo [the man in charge of maintaining the bridge] is up against a primitive, but unrelenting foe whose ultimate strength is its ability to outlast its adversary, and he accepts as a fact that ultimately nature must win.” Ibid., 34.
46 Ibid., 272.
47 Colebrook, Death of the Posthuman: Essays on Extinction, 198.
48 Ibid.
49 Ibid., 21.
Throughout her Essays on Extinction Colebrook repeats and rephrases her key point: “would it not be better to start to look at the world and ourselves without assuming our unquestioned right to life?” Ballard eloquently answered this question more than half a century earlier in The Drowned World. In his utopian setting of the ruined city we are forced to acknowledge that man is not the centre of all things, but just one life-form among many. Our survival in not imperative, it is conditional and precarious.

**Eve at The End**

In The Drowned World, humanity accepts the possibility, perhaps the inevitability, of our own extinction. In his seemingly nihilistic ending, Ballard offers hope; not the Hollywood-style happy ending in which humanity survives at all costs, but a post-human utopian vision of hope in which the rest of life is given the chance to go on without us. And through a feminist led re-reading and re-writing of the novel, undertaken as primary research for this project, it became evident that Beatrice is a key player in delivering this message.

Although what exactly happens to Beatrice at the end of the novel is not clear, we must remember that remaining in The Drowned World was her idea. When Kerans walks south in the final sentence of the novel, he mirrors Beatrice’s intention:

> So he left the lagoon and entered the jungle again, within a few days was completely lost, following the lagoons southward through the increasing rain and heat, attacked by alligators and giant bats, a second Adam searching for the forgotten paradises of the reborn sun.51

Beatrice’s refusal to cling to life, to procreate, and strive for species survival is perhaps even more symbolically potent than the actions of Ballard’s “second Adam”. She rejects her gender determined destiny as Eve (first mother, mythic creator of all human life) and instead chooses death.

In Beatrice Dahl, Ballard (no doubt inadvertently) created a resilient, self reliant and complex female character who has remained hidden between the lines of The Drowned World for more than five decades.

50 Ibid., 22.
51 Ballard, The Drowned World, 158.
Even without the backstory I have constructed for Beatrice in the interstitial Chapter 3.5, her decision to accept extinction demonstrates a kind of pragmatic heroism. By accepting this fate, rather than fighting it no matter what the consequences for other life-forms and the broader environment, both Kerans and Beatrice, Ballard’s post-apocalyptic Adam and Eve (fig. 60), offer humanity perhaps the only chance of redemption still available in the post-climate-change age.

Figure 60: In *The Drowned World*, Kerans and Beatrice (here played by Charlton Heston and Karen Black with the help of Albrecht Dürer) are a kind of post-apocalyptic Adam and Eve. Graphic: T. Clement.
Chapter Four:
Soon it would be too hot

When writing *The Drowned World*, J.G. Ballard seems to have had a prescient vision of a world in which global warming has well and truly silenced the plaintive cries of the last remaining die-hard climate-change deniers and exposed the word ‘change’ for the euphemism it is. But one of the key lessons gleaned through reading *The Drowned World*, and re-reading it through art, is not that Ballard was a visionary, although, arguably, he was. Instead, by creating a novel that spans the eschatological crises of two eras, Ballard illustrates the fact that The End is always nigh.

On 18 April 1960 BBC news described a ‘ban the bomb’ anti-nuclear weapon march in London as the largest demonstration of the century.\(^1\) Almost precisely a year later, on 17 April 1961, the failure of a CIA plot to invade communist Cuba at the Bay of Pigs was played out across the international media. In a retaliatory show of strength, the Soviet Union made headlines around the world some six months later by testing the largest atomic bomb ever detonated.\(^2\)

In late 1961, as Ballard was writing

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\(^1\) This was the third annual march from the Atomic Weapons Research Establishment at Aldermaston, Berkshire, to London, a distance of approx. 50 miles. The 1960 march was, according to the BBC, “the largest demonstration London has seen this century.” BBC, "18 April 1960: Thousands Protest against H-Bomb,” BBC News, http://news.bbc.co.uk/onthisday/hi/dates/stories/april/18/newsid_2909000/2909881.stm.

The Drowned World, events like these contributed to a palpable cultural anxiety. The Cold War was heating up. As the author put it in the first line of The Drowned World, “Soon it would be too hot.”

The threatening heat in Ballard's post-apocalyptic novel is very much a product of a Cold War climate of fear. Jeannette Baxter came to the same conclusion in her book J.G. Ballard's Surrealist Imagination: Spectacular Authorship. “The sun which overwhelms Ballard's landscape can be read in terms of a nuclear explosion,” she said. “The shimmering rings of light which glow out from the golden core embody the movement of detonation, the far-reaching effects of apocalypse.” In The Drowned World, as in the passage below, the sun is incendiary.

Although it was well after four o'clock, the sun filled the sky, turning it into an enormous blow-torch and forcing them to lower their eyes to the water-line. Now and then, in the glass curtain-walling of the surrounding buildings, they would see countless reflections of the sun move across the surface in huge sheets of fire...

While divining the intention of the author is not the aim of this research, it is clear that during the Cold War of the 1960s and 1970s, ‘The End’ was very much on Ballard’s mind. The very first word in Ballard’s 1970 experimental novel, The Atrocity Exhibition, is apocalypse. This solitary word is also the first sentence. “Apocalypse.” As if nothing else needed to be said, as if this one word was big enough to contain all the explosive enormity it implied during an era characterised by the accelerated proliferation of nuclear weapons. And it was.

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3 Just months after his novel was published, simmering political tensions threatened to boil over as the two super powers, the USSR and the USA, wrangled over Cuba, atomic weapons poised. On 28 October 1962, nuclear war was narrowly avoided when the Cuban missile crisis came to a diplomatic end. According to BBC news coverage at the time, “The world has breathed a collective sigh of relief after the superpowers reached an agreement ending the immediate threat of nuclear war.” 28 October 1962: World Relief as Cuban Missile Crisis Ends," BBC News, http://news.bbc.co.uk/onthisday/hi/dates/stories/october/28/newsid_2621000/2621915.stm.
6 Ballard, The Drowned World, 36-37.
7 Each story is only a paragraph long. In the second story, roughly 250 words later, he mentions Hiroshima, Nagasaki, Little Boy and Fat Boy. (The bomb dropped on Nagasaki was actually called Fat Man.) J.G. Ballard, The Atrocity Exhibition: Revised, Expanded, Annotated, Illustrated Edition (San Francisco: Re/Search Publications, 1990), 9.
In fact, the devastating power of the bomb had been at the forefront of Ballard’s consciousness since Hiroshima. In a 1995 interview with fellow English author Will Self, Ballard admitted to his “personal obsession with nuclear weapons” and said:

“The idea that the human spirit might be somehow transfigured by an apocalyptic nuclear war, even at the costs of hundreds of millions of deaths, that this is a necessary step for mankind – this obsessed me for many years, and it comes through in a lot of my fiction...”

Ballard’s first four novels, including *The Drowned World*, are post-apocalyptic. In the annotations he added to the 1990 illustrated Re/Search edition of *The Atrocity Exhibition*, he acknowledged the pervasive presence of nuclear imagery in the 1960s and its impact on culture. He called TV footage of nuclear explosions at the time “endless” and said that these omnipresent mushroom clouds were “a powerful incitement to the psychotic imagination, sanctioning everything”. When Ballard was writing *The Drowned World*, nuclear Armageddon seemed like a very real possibility.

The Cold War continued to infuse daily life with a toxic cocktail of fear, loathing, and, perhaps most debilitating of all, a persistent pessimism well into the 1980s. As Ballard himself said in a 1988 interview, “Probably the first casualty of Hiroshima and Nagasaki was the concept of the future. I think the future died some time in the fifties.” Whole generations came of age whose daily lives were accompanied by a constant undercurrent of tension: a subtle but ubiquitous frission of dread fuelled by the terrible knowledge that trigger-happy politicians could pick up the red phone, hit the button, and start a nuclear war at any moment.

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12 As outlined in the introduction, I am one of these Cold War babies. With Trump in the White House it seems possible this fear will seep back into daily life. For example, on 17 April 2017, *The Guardian* published: Paul Mason, "Nuclear War Has Become Thinkable Again – We Need a Reminder of What It Means" *The Guardian*, 17 April 2017.
W. Warren Wagar, an American Professor of History, neatly encapsulated this feeling of impending and inevitable doom in his 1982 book, *Terminal Visions: The Literature of Last Things*. Summing up eschatological anxieties fed by the awesome and catastrophic potential of the nuclear arms race, Wagar wrote:

There have seen endtimes aplenty in the six thousand years of recorded history, but none so universal or so dangerous. Only the demon of relativism bars us from full consciousness of our predicament. Be not deceived. Our twentieth-century endtime does surpass, in scope and destructive potential, all others.\(^{13}\)

Of course The End, or at least this end, failed to materialise. Like so many predicted apocalypses preceding it, nuclear megadeth didn't keep its appointment with destiny. In 1991 the Iron Curtain parted and the Wall fell. The Cold War was ostensibly over, but a new crisis was already getting warmed up. Eschatological anxiety fuelled by nuclear arms proliferation was all too quickly replaced by another man-made catastrophe waiting to happen: climate-change.

### Climate-change is the new Cold War

In fact, the climate crisis was already happening. It just hadn't yet taken hold of the collective imagination. Somewhat ironically, Wagar (like Ballard in *The Drowned World*) seems to have predicted what would drive our contemporary eschatological anxieties. In an unwittingly prescient passage from *Terminal Visions* he wrote:

One science in particular, ecology, has generated an immense literature of catastrophe. Ecologists tell us of ‘the population bomb,’” the coming “death of the oceans,” the “limits to growth,” the need for a new “lifeboat ethics.” There will soon be great famines, droughts, and – take your choice – a new ice age or the transformation of the earth into one vast suffocating hothouse.\(^{14}\)

It seems clear from Wagars's tone that he is not entirely convinced by these prophets of a new doom. Writing in 1982, his anxieties were still firmly fixed in a Cold War

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\(^{14}\) Ibid., 4.
mentality: climate-change was yet to overshadow nuclear Armageddon in the public consciousness. But the seeds of the next eschatological crisis were already beginning to take root.

In her book, *Sense of Place and Sense of Planet*, Ursula K. Heise, then from Stanford University, traces the history of environmentalism and the awareness of the planet as a single ecosystem. She emphasises the pivotal role that Rachel Carson’s 1962 book *Silent Spring* had on the early movement. Following the publication of *Silent Spring*, which focused on the widespread effects of pesticides and herbicides, concerns about the impact humanity was having on the environment began to enter mainstream public consciousness. And during the 1970s the burgeoning science of ecology started to gain momentum: dire predictions of environmental catastrophe began to reach ever increasing audiences.

In his book, *The Discovery of Global Warming*, physicist, historian of science and director of the American Center for the History of Physics Spencer R. Weart documents the history of both scientific and public awareness of global warming. He notes that influential American geoscientist Wallace S. Broecker of Columbia University brought the phrase into widespread use with his 1975 article for *Science* magazine, ‘Climatic Change: Are We on the Brink of a Pronounced Global

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15 The impact of *Silent Spring*, Heise says, has “often been noted.” Ursula K. Heise, *Sense of Place and Sense of Planet: The Environmental Imagination of the Global* (Oxford University Press, 2008), 160. Weart noted it, and further noted that it was nuclear fallout that made Carson realise that nothing in nature was safe from mankind. Spencer R. Weart, *Nuclear Fear: A History of Images* (Cambridge, Mass. and London: Harvard University Press, 1988), 325.

16 Tait seems to argue that *Silent Spring* was an influence on Ballard’s novel *The Drowned World*. However, this connection is erroneous because *The Drowned World* was published in January 1962 (according to Goddard and Pringle’s bibliography) but *Silent Spring* did not come out until September 1962. It is possible that Ballard was picking up on the zeitgeist of the time, but since *Silent Spring* is often credited with creating this, it seems unlikely. Adrian Tait, "Nature Reclaims Her Own: J.G. Ballard’s the Drowned World," *Australian Humanities Review*, no. 57 (2014): 26.


18 In a Columbia University profile of Broecker, Richard Alley, the Evan Pugh Professor of Geosciences at Penn State, said, “He is intellectually so huge in how the earth system works and what its history is that all of us are following Wally in some way or another.” Timothy P. Cross, "Wallace Broecker ’53 Battles the Angry Climate Beast," Columbia College Today, https://www.college.columbia.edu/cct/archive/summer12/features4.
Warming?’ In this article Broecker warned that “We may be in for a climatic surprise.” And not a pleasant one. According to Weart, Broecker was “foremost in taking the disagreeable news to the public... The climate system was a capricious beast, he said, and we were poking it with a sharp stick.” In his 1987 article, ‘The Biggest Chill,’ Broecker warned:

[W]e are pushing the earth into an unknown realm... Rather than treating it [global warming] as a cocktail hour curiosity, we must view it as a threat to human beings and wildlife that can be resolved only by serious study over many decades.

By 1988, well before the Berlin Wall came symbolically crashing down, the phrases ‘greenhouse effect’ and ‘global warming’ had entered the popular lexicon. In his article, ‘The History of the Global Climate Change Regime,’ Daniel Bodansky, then Professor of Law at the University of Washington and Climate Change Coordinator for the US Department of State, traced the transformation of climate-change from scientific hypothesis to political hot potato. By 1997, year of the Kyoto Protocol, it had become an issue demanding global governmental action.

Pinpointing the year when climate-change infiltrated the zeitgeist as the new crisis of the age is a little trickier, in part because some die-hard deniers remain. But instinctively, 2005 seems about right. That year I tried to read Australian author Colin Mason’s book, The 2030 Spike: Countdown to Global Catastrophe, and gave

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19 Weart, among many others, actually claims that Broecker was the first to use the phrase global warming. Broecker apparently wanted to set the record straight and offered his students $275 to locate an earlier use of the term. They found that in 1957, New York Times columnist William Safire used the phrase while reporting on the work of an unnamed scientist. But that usage didn’t capture the popular imagination, Broecker’s in 1975 did. Ibid.
21 Weart, The Discovery of Global Warming: Revised and Expanded Edition, 137. Weart is paraphrasing Broecker here. But finding a precise source for this often quoted phrase is difficult. It seems possible that it was first spoken rather than written. The Columbia University profile (where he has worked for more than 50 years) dates his use of the phrase to the early 1990s. Cross, "Wallace Broecker '53 Battles the Angry Climate Beast”.
24 Although the response wasn’t unilateral, Bodansky highlights the fact that it was clear to all involved that action was needed. Bodansky, "The History of the Global Climate Change Regime," 36-37.
25 Physicist Spencer R. Weart also identifies 2005 as the moment when the American public finally started to believe that the crisis was real. Weart, "The Public and Climate Change".
up because it was too depressing. On 29 August 2005, Hurricane Katrina dramatically illustrated the horror of a real drowned world. Just under a month later, on 24 September, British writer and academic Robert Macfarlane issued a clarion call to action in his article, ‘The Burning Question,’ published in The Guardian newspaper. “Where is the literature of climate change?” he lamented. “Where are the novels, the plays, the poems, the songs, the libretti, of this massive contemporary anxiety?”

Now, more than a decade later, fear of rising temperatures and encroaching oceans, water shortages, wild weather, and the mass migrations set in motion by all of the above has largely replaced fear of nuclear annihilation as the driving force behind current eschatological anxiety. Like the Cold War before it, the climate crisis is synonymous with an amorphous, creeping, insidious dread: an always present, ever looming threat. It is imminent, inexorable, inevitable, immense. Climate change is the new Cold War.

Without saying so with such blunt clarity, English object-oriented philosopher Timothy Morton seems to agree. In his 2013 book Hyperobjects he acknowledges that thinking about both nuclear radiation and global warming was the catalyst for his concept of hyperobjects, and in the following passage he uses an evocative combination of Cold War and climate-change imagery to explain how they become manifest:

We never see the hyperobject directly. We infer it from graphs, instruments, tracks in a diffusion cloud chamber, sunburn, radiation sickness, mutagenic effects, childbirth. We see the shadows of the hyperobject, gigantic patches of darkness that fleetingly slide across

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26 Colin Mason, The 2030 Spike: Countdown to Global Catastrophe (London: Earthscan Publications, 2003). This reaction is part of what prompted my first artworks made in response to The Drowned World. I needed to find another way to engage with the threat posed by climate-change. More on this shortly.

27 More on the cultural impact of Hurricane Katrina in Chapter Five.


the landscape. We see shadows of humans engraved on a Japanese wall (fig. 62). We see rain clouds, mushroom clouds, we see the Oort Cloud at the edge of the Solar System... We see figments and fragments of doom.  

Global warming is Morton’s key hyperobject. And like all hyperobjects, global warming (or climate) is massive, diffusely distributed across both time and space. A formless entity made up of complex relationships between living organisms, inanimate objects and cosmic forces, it is difficult to pin down and largely unintelligible to the human mind.

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31 Ibid., 125.

32 Ibid., 8-9. Morton prefers the phrase global warming to climate-change as the word change has too many positive associations and is open to the argument that the climate has never been static, but always in a state of flux. Readers of this research will have noticed my preference for the phrase climate crisis, a phrase which does evoke the danger we face.
The capricious beast within

Climate is a complex synergistic system. Even today its intricate networked machinations remain resistant to the probing of scientific enquiry. As we come to appreciate that climate is more than just the weather, we are forced to acknowledge that the more we learn, the less we really understand. There are too many variables, too many triggers: endless combinations and permutations.

In 2011, a group of researchers led by Wallace S. Broecker, along with George Denton and Richard Alley (both American geologists who specialise in glaciers) came to the unequivocal conclusion that climate is impossible to fully comprehend with the scientific tools and knowledge at our disposal. But, in opposition to Morton’s image of climate as a slow motion bomb, what they could say with certainty, based on evidence from the geological record gathered from ice cores in Greenland, was that climate can actually change very drastically, very quickly.\(^\text{33}\)

As Broecker et al. put it in the book which outlined their findings *The Fate of Greenland: Lessons from Abrupt Climate Change*,\(^\text{34}\) in the past, rather than following a steady, reliable path “the climate has staggered drunkenly” and there is no doubt it will again.\(^\text{35}\) Broecker, who infamously had previously characterised climate as an “angry beast”,\(^\text{36}\) now made his metaphorical creature a dipsomaniac as well. And as anyone who knows one can testify, an angry drunk is volatile, unpredictable and frightening. In fact, understanding that climate is so resistant to scientific enquiry makes it scary in more ways than one.

As Morton argues, the vast complexity, porous boundaries and inherent incomprehensibility of hyperobjects brutally shatter the illusion of control and superiority so central to our anthropocentric world view. Hyperobjects like global warming force us to face the reality that, as Morton puts it, “there is no center and we don’t inhabit it… The threat of global warming is not only political, but also ontological.”\(^\text{37}\)

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\(^{34}\) It is interesting to note that entrepreneur Gary Comer (1927-2006) spent some $60million USD to privately fund this research, “In the absence of any significant leadership in Washington at the time”. Ibid., xi.

\(^{35}\) Ibid., 23.

\(^{36}\) Cross, “Wallace Broecker ’53 Battles the Angry Climate Beast”.

As we saw in Chapter Three, both Ballard and Claire Colebrook confront this ontological threat head on. In *The Drowned World* humanity is dying out. In her book, *Death of the Posthuman*, Colebrook argues that we need to consider climate as a broad topic that includes the possibility of human extinction. If we rise to this challenge, climate becomes an even larger and more threatening concept: the hyperobject of our current ecological crisis also encompasses the inevitable demise of our own species, a notion very large and difficult to grasp indeed.

Climate-change is the new Cold War. But it’s a very different type of conflict. Despite being a campaign without clear parameters, the Cold War at least offered obvious perpetrators to point the finger at. No matter what your political stance, there was always someone else to blame: there was always an ‘us’ and a ‘them’. Who ‘they’ were simply depended on your ideological leanings: those on the ‘left’ might focus their anger on trigger-happy American imperialists, while those on the ‘right’ saw communist thugs in the Kremlin as culpable. Today, American President Donald Trump and North Korean leader Kim Jong-un present themselves as larger than life targets to blame for anxiety over nuclear warmongering. But everyone who accepts the reality of climate-change understands that ‘we’ are to blame, there is no them. There is only us.

Trying to stop the juggernaut of global warming may be futile at this point.\(^{38}\) Even American journalist and activist Naomi Klein, a passionate advocate for collective action and board member of 350.org, which is described as “a global grassroots climate movement,”\(^ {39}\) has been forced to admit that “it’s too late to stop climate change from coming; it is already here, and increasingly brutal disasters are headed our way no matter what we do.”\(^ {40}\) And she is probably right. But even finding ways to mitigate the effects of the climate crisis isn’t easy. Not only because it’s a “capricious beast,” as Weart (paraphrasing Broecker) says, but because the real enemy comes from within.

So, how can we effectively tackle, or even comprehend, something so vast, so dispersed and overwhelming, so confronting and poorly understood? One way in

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\(^{38}\) Naomi Klein cites a number of studies which indicate a rise of temperature of at least 4°C by the end of this century. Klein, *This Changes Everything*, 12-15.

\(^{39}\) The group was founded in 2008 by Bill McKibben. 350.org, “How We Work,” https://350.org/how/.

\(^{40}\) Klein, *This Changes Everything*, 28.
which we have sought to come to terms with the threat of our climate crisis is through post-apocalyptic narratives.

This is The End

In the years since climate-change really captured the public imagination, we have watched the world be destroyed (almost) repeatedly on screens, both big and small. And we follow the exploits of the plucky few that survive in both cli-fi and sci-fi novels. Since 2004, when Wallace S. Broecker’s theory of a great ocean conveyor belt that could suddenly switch off and plunge the world into a new ice age reached a mass audience via the blockbuster movie ‘The Day After Tomorrow,’ (fig. 63) the planet has been (fictionally) reshaped through cataclysmic environmental crisis over and over again. In fact, there have been so many post-apocalyptic stories produced recently that Colebrook calls it a “deluge of cultural production”.

It is clear from her choice of words that Colebrook doesn’t approve of post-apocalyptic fiction. For her the genre is an indulgent exercise in denial. “[W]e play and replay the disappearance and reappearance of life,” she says, “and do this to anticipate and master an event that concerns our (in this case, very real and possible) non-existence.” Morton also characterises post-apocalyptic fictions as

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41 This was the hypothesis outlined in his 1987 article ‘The Biggest Chill.’ By 2011 Broecker was slightly more optimistic. While he still acknowledges the possibility, perhaps inevitability, of abrupt climate-change, he no longer predicts that the North Atlantic conveyor will shut down. But the salient point is not that he thinks it won’t happen, it is that (as mentioned earlier) he admits that with current information and understanding nothing can be predicted with certainty. Conkling et al., The Fate of Greenland: Lessons from Abrupt Climate Change, 200.

42 Roland Emmerich, "The Day after Tomorrow," (20th Century Fox, 2004). As discussed in Chapter One, film is not the subject of this research. But the impact of the genre on public awareness in undeniable. Arguably, the release of this film in 2004 contributed to 2005 being the tipping point for public awareness of climate-change as the key eschatological crisis. It is also interesting to note the time delay (17 years) between the publication of Broecker’s theory and its conversion into pop-culture product. Despina Kakoudaki notes that not only does ‘The Day After Tomorrow’ deal with actual scientific theories of climate-change, but it also inspired the production of the film ‘An Inconvenient Truth.’ She says that producer Laurie David saw Al Gore’s presentation on global warming the same day that the blockbuster was released. Inspired by the collision of fact and fiction, the producer began working on adapting Gore's presentation for film. Despina Kakoudaki, "Representing Politics in Disaster Films," International Journal of Media and Cultural Politics 7, no. 3 (2011): 352-53.


44 Ibid., 187.
numbing and counter-productive. For him they are “part of the problem, not part of the solution.”

In their negative assessment of the utility of post-apocalyptic stories, both Morton and Colebrook echo Susan Sontag’s influential 1965 article on B-grade sci-fi films, ‘The Imagination of Disaster.’ As noted in Chapter One, film is not the subject of this research. However, as Colebrook and Morton demonstrate, the hypothesis of Sontag’s essay can be extrapolated to include post-apocalyptic fiction in a variety of formats. She argued that sci-fi disaster stories served the dual purposes of distracting us from imminent catastrophic danger and making us psychologically numb to that danger.

‘The Imagination of Disaster’ is suffused with Cold War tension and the danger Sontag was referring to was nuclear war, but she could just as easily have been discussing our current climate crisis. As she said:

Ours is indeed an age of extremity. For we live under continual threat of two equally fearful, but seemingly opposed, destinies: unremitting banality and inconceivable terror. It is fantasy, served out in large

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45 “By postponing doom into some hypothetical future, these narratives inoculate us against the very real object that has intruded into ecological, social, and psychic space. As we shall see, the hyperobject spells doom now, not at some future date.” Morton, Hyperobjects: Philosophy and Ecology after the End of the World, 27, 103-04.

46 This article by Sontag is frequently quoted. For example see: David Dowling, Fictions of Nuclear Disaster (Iowa City: University of Iowa Press, 1987), 16; Mick Broderick, "Surviving Armageddon: Beyond the Imagination of Disaster," Science Fiction Studies 20, no. 3 (1993): 362.

rations by the popular arts, which allows most people to cope with these twin specters.\textsuperscript{48}

Sontag concluded that, faced with what she characterised as the psychologically untenable threat of imminent extinction that could come without warning, sci-fi films were symptomatic of an “\textit{inadequate response}” to a very real danger.\textsuperscript{49} Which naturally raises the question, what would be an \textit{adequate response} to our current crisis?

\section*{An adequate response}

“It is easier to imagine the end of the world than the end of capitalism,” or so the saying goes. In her 2014 book, \textit{This Changes Everything}, Naomi Klein refuses to succumb to the grim fatalism of this oft repeated aphorism, which is usually (erroneously) attributed to Fredric Jameson.\textsuperscript{50} The end of capitalism and its attendant need for unfettered, ever increasing growth, its voracious appetite for earthly resources and the endless stream of underpaid semi-disposable earthlings it consumes in order to manufacture these materials into not always necessary items that are globally distributed and consumed, is exactly what she imagines. Putting a stop to all this is her idea of an adequate response to climate-change, the key eschatological crisis of our age.

And, as responses go, it would be more than adequate. In fact it would be excellent if we could, as she suggests, somehow dismantle the entire global capitalist economy and its inherent power structures through sheer force of individual consumer willpower and collective peaceful activism. But we can't. Or at least we can't fast enough.

\textsuperscript{48} Ibid.
\textsuperscript{49} Italics in original text. Ibid., 48.
\textsuperscript{50} As Jameson makes clear, he obviously heard it elsewhere. “If it is so, as someone has observed, that it is easier to imagine the end of the world than the end of capitalism...” Fredric Jameson, \textit{Archaeologies of the Future: The Desire Called Utopia and Other Science Fictions} (London: Verso, 2007), 199. Franklin said something similar in 1979 in his Marxist critique of Ballard. He enquired somewhat plaintively, “What could Ballard create if he were able to envision the end of capitalism as not the end, but the beginning, a human world?” H. Bruce Franklin, "What Are We to Make of J.G. Ballard's Apocalypse?,” in \textit{Voices for the Future: Essays on Major Science Fiction Writers Volume Two}, ed. Thomas D. Clareson (Bowling Green University Popular Press: Bowling Green, Ohio, 1979), 105.
Her response, which theoretically could work wonders, would actually require some kind of magic. The forces of big business, of government sanctioned greed, of even everyday avarice, are simply too all pervasive, too powerful. We might be able to act, and individual actions might even effect change, but the impossible scale and improbable swiftness of the unilateral action required for her adequate response is (sadly) utterly unachievable.

In 2014 Klein declared that “we either change now or we lose our chance.” She pointed out that we had entered “what some activists have started calling “Decade Zero” of the climate crisis”; the last opportunity to prevent cataclysmic effects.\(^51\)

Klein set the point of no return at 2017, giving her readers just three short years to bring about extremely radical, global change.

Now, at the time of writing, we have already missed her deadline.

The problem Klein is trying to address is massive (hyperobject huge). But her proposed solution is just as incomprehensible. And here we start to see how Klein’s response is actually not adequate. In fact it is worse than inadequate; it’s debilitating.

I tried to read *This Changes Everything* in 2015. Just contemplating the scale of the social, political and economic miracle that would be needed to effect such swift and radical change, the unbridgeable disparity between the action required to achieve Klein’s utopian vision of a better world and the woefully inadequate time allocated to

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achieve this action, sent me into a paralysing tailspin of despair. I became so overwhelmed, so despondent, that I literally could not keep reading. This changes nothing.

As previously outlined, I had precisely the same reaction a decade earlier when faced with the doom-laden statics of *The 2030 Spike* by Colin Mason. Both authors were issuing a heartfelt and urgent call to arms, but instead of becoming motivated I became immobile. Desperate, I rejected facts and turned to fiction. Mason prompted my first return to *The Drowned World*. Klein convinced me that I was in the right territory. In order to deal with a very real eschatological crisis I looked to a story, a story about The End. And in this, it seems, I am not alone.

**Beginning, middle, The End**

According to English literary critic Frank Kermode, our fascination with the coming apocalypse is both useful and unavoidable. In his seminal book on the cultural role of apocalyptic fiction, *The Sense of an Ending*, Kermode characterised the human condition as being caught in “the middle.” He described this temporal zone of uncertainty as “an indeterminate interval between the tick of birth and the tock of death.” For Kermode, fictions imagining The End are a biological imperative, a key strategy that we employ in order to give order and structure to our short time on earth and to add a sense of certainty to our unpredictable lives. “We project ourselves—a small, humble elect, perhaps—past the End,” he said, “so as to see the structure whole, a thing we cannot do from our spot of time in the middle.”

Like Sontag, Kermode was writing in the mid 1960s, a time when the Cold War threatened to turn white-hot in Cuba and Holocaust survivors (evidence of just how far ideological zealots are prepared to go) were still very much alive. Yet, unlike W. Warren Wagar, he was able to see that his eschatological anxieties, although entirely justified, were not unique. According to Kermode:

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53 Ibid.
54 Ibid., 8.
It seems to be a condition attaching to the exercise of thinking about the future that one should assume one’s own time to stand in an extraordinary relation to it. The time is not free, it is the slave of a mythical end. We think of our own crisis as pre-eminent, more worrying, more interesting than other crises… But it would be childish to argue, in a discussion of how people behave under an eschatological threat, that nuclear bombs are more real and make one experience more authentic crisis-feelings than [medieval fears of biblical] armies in the sky.\textsuperscript{55}

Kermode is saying that we are both biologically and culturally conditioned to look towards a future end. From ancient Aztecs and medieval monks to anti-nuclear war activists and modern day religious fundamentalists of various denominations, people in every age have had their own apocalyptic terrors. This fact is nicely illustrated by The Drowned World, a novel written in response to the eschatological crisis of one era which speaks poignantly to those of us who are mired in the subsequent crisis. The End, is both cyclical and inevitable.

Current eschatological anxiety, in the secular realm, is predominantly fed by the climate crisis.\textsuperscript{56} And our fear is no less real, our sense of urgency is no less compelling, for knowing that our crisis in not unique. Something needs to be done.

If bombarding the public with facts and figures isn’t working, the questions remains: what is an adequate response? I’m not alone in finding a textual tsunami of threatening data overwhelming. As Timothy Morton puts it, the trouble with a facts-only approach that relies solely on reason “is that human beings are currently in the denial phase of grief regarding their role in the Anthropocene. It’s too much to take in all at once.”\textsuperscript{57} Luckily, when facts fail, fiction steps in.\textsuperscript{58}

Kermode’s central thesis in The Sense of an Ending is that literature is a way of making sense of the world, of ordering time into past, present, and future, just as

\textsuperscript{55} Ibid., 94-95.
\textsuperscript{56} Naturally some eschatological anxiety is still fuelled by religious dogma and by nuclear disasters such as the recent reactor meltdown in Fukushima, Japan, 2011, not to mention the aggressive posturing of Trump and his ilk.
\textsuperscript{57} Morton, Hyperobjects: Philosophy and Ecology after the End of the World, 27, 183.
\textsuperscript{58} As Heise points out, “Apocalyptic narrative, with its portrayal of an entire planet on the brink of ecological collapse and human populations threatened in their very survival, has been one of the most influential forms of risk communication in the modern environmental movement”. Heise, Sense of Place and Sense of Planet: The Environmental Imagination of the Global, 122.
theology, history and science are. For him these other models, which are normally considered factual, are actually “other fictional systems”. And each has its adherents. Some, he concedes, chose science or religion, for others literature is most effective. But all of these disciplines are forms of narrative, an essential survival strategy. As Kermode said, “It is not that we are connoisseurs of chaos, but that we are surrounded by it, and equipped for coexistence with it only by our fictive powers.”

Following Kermode it is clear that responding to our current crisis through stories about The End may be inevitable. In the remainder of this chapter I will argue that these post-apocalyptic narratives are an adequate reaction to real threats, and art may be a language even better equipped to tell these stories.

Tell me a story

We humans love to be told a story. In fact, as Kermode and many other theorists point out, our capacity for narrative is one of our defining features. As Scottish born philosopher of ethics Alasdair MacIntyre put it in his 1981 book, After Virtue: A Study in Moral Theory, “man is in his actions and practice, as well as in his fictions, essentially a story-telling animal.”

Echoing Kermode, MacIntyre outlines a concept of the self which relies on the only certainty we have in an uncertain world: the narrative structure of birth and death, beginning and end. And importantly, for MacIntyre, this notion of self is delineated through a narrative that inevitably interlocks with stories told and lived by others. “[W]e are never more (and sometimes less) than the co-authors of our own narratives,” he says, adding “all attempts to elucidate the notion of personal identity independently of and in isolation from the notions of narrative, intelligibility and

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60 Ibid.
63 Ibid., 205.
64 Ibid., 213.
accountability are bound to fail.”65 This notion of accountability is key, MacIntyre is a philosopher of ethics after all. He argues that it is because of our inherent capacity for narrative that we are able understand that our actions have consequences which effect others.66

In his 1984 essay, ‘Narration as a Human Communication Paradigm: The Case of Public Moral Argument,’ American narratologist Walter R. Fisher offers narrative (not reason and rationality) as a paradigm for all human communications.67 Fisher was heavily influenced by MacIntyre’s work. His essay was a direct response to two triggers: After Virtue and the nuclear disarmament debate.68

Fisher contends that literature (including history, biography, autobiography, drama, poetry and the novel)69 is capable of constructing an argument just as effectively as the Aristotelian tradition of rhetoric. And, unlike rhetoric, narrative does not have to be learned. Narrative structure is, for Fisher, a human universal, accessible to all, and therefore an inclusive and useful political tool.70

Driven by the escalating arms race of the Cold War,71 the eschatological crisis of his age, Fisher placed heavy emphasis on the usefulness of his narrative paradigm in public moral argument, as the title of his essay indicates. And here we start to see how his work remains relevant today as we face yet another crisis that threatens all life on earth.

In debates on important issues such as nuclear disarmament or the climate crisis, experts employ the conventional model of rational rhetoric. They bombard a passive audience with bamboozling amounts of incontrovertible data, a strategy which, as

65 Ibid., 218.
66 Because of this, according to MacIntyre, we have a moral responsibility from which other sentient creatures are exempt. “Human beings can be held to account for that of which they are the authors,” he says, “other beings cannot.” Ibid., 209.
67 Fisher acknowledges several other theorists whose work has informed his, but insists that his is the first attempt to offer narrative as a paradigm for all human communication. Fisher takes great care to make it clear that he does not actually reject reason and rationality, saying, “The narrative paradigm does not deny reason and rationality; it reconstitutes them, making them amenable to all forms of human communication.” He even goes so far as to suggest that his phrase, home narrans, be used to describe the essential nature of human beings alongside more familiar phrases such as homo sapiens. Fisher, “Narration as a Human Communication Paradigm: The Case of Public Moral Argument,” 2, 6.
68 Ibid., 1.
69 Ibid., 6. This broad definition echoes Kermode.
70 This is the basic thrust of the whole article. Ibid., 1-22.
previously discussed, can have negative effects. As Fisher puts it, “Traditional rationality implies some sort of hierarchal system, a community in which some persons are qualified to judge and to lead and some other persons are to follow.”

Fisher argues that his narrative paradigm is important for public moral argument because it subverts this rational model. “From the narrative paradigm view,” he says, “the experts are storytellers and the audience is not a group of observers but are active participants in the meaning–formation of the stories.” Stories invite imagination and active interpretation. As discussed in Chapter One, this one of their key strengths and advantages over film. And art too is capable of telling tales in a way that draws the viewer in and stimulates the imagination.

Kermode, MacIntyre and Fisher all provide broad lists of what constitutes narrative, including forms both factual and fictional. These theorists seemed to consider the notion of visual art as a storytelling method, but they ultimately failed to include it.

But in his contribution to the special 1980 issue of the respected journal Critical Inquiry, titled On Narrative, Seymour Chatman made it clear that he understood that narrative is an organisational structure not confined exclusively to written or spoken language. Then a Professor of Rhetoric at the University of California, Berkeley, Chatman said, “One of the most important observations to come out of narratology is that narrative itself is a deep structure quite independent of its medium.” He added plays, films, drawings, comic strips, dance, mime and music to an already extensive list of a narrative forms. Without saying so in so many words, Chatman highlights what many aestheticians have been saying for some time: art is a language capable of telling complex stories.

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73 Ibid., 13.
74 Kermode comes closest when he quotes the physicist Heisenberg who equates art with science in its ability to describe reality. (More on this shortly.) In doing so, he stops just short of explicitly including art in his list of fictions that we use to make order out of chaos. Kermode, The Sense of an Ending: Studies in the Theory of Fiction, 61.
75 The 1980s seem to have been the heyday for narrative theory in the Anglophone world, driven perhaps by the fact that English translations of French post-structuralist theorists were becoming more readily available.
77 Ibid.
78 Ibid., 122.
The wordless syntax of art

Art is a language. I first wrote this sentence in mid 2013. On a subconscious level I suspect that I had understood this for a long, long time, but what was tacit knowledge coalesced into this precise phrase when I was commissioned to write an article titled, ‘Why Art Matters.’

In many ways tackling a topic such as this is a futile task. You are either, to use two very apt clichés, ‘preaching to the converted’ or ‘banging your head against a brick wall.’ Nevertheless, as a confirmed member of the former congregation, I took the task very seriously because I fervently believed (and still do) that art really does matter. As a result, an almost evangelical passion for the possibilities of art is evident in this extract from my polemic:

Art, like music or poetry, is a wonderfully ambiguous, lyrical code that defies empirical quantification. Art is a language that gets both lost and found in translation. Unlike words, it defies the didactic strictures of dictionary definitions. Deliciously obtuse, multivalent, multi-lingual and multi-media, art is more complex than just about any other form of creative human endeavour, from mechanical to genetic engineering… Art can communicate ideas that can’t be constrained by words, ideas that are too big, too overwhelming, incomprehensible and slippery. Art has been used by mystics, shamans and priests of all creeds for millennia. Art is a manifestation of abstract thought, a way to describe the indescribable, a way to say what can only be felt. Art matters because it is a language that

79 The (unspoken) context for the article was the understanding that to most people art doesn’t actually matter much at all. Consequently, artists and the institutions that both feed off and support them (museums, galleries, funding bodies and art schools) constantly feel the need to justify their own existence. I was initially commissioned to write the article for an art school magazine. However, the magazine never went to press. Much of my original article was later published in: Tracey Clement, "Devolving Futures: Making Art in the New Millennium," Art Guide, January-February 2014, 72-74.
says what nothing else can in myriad different ways. Art matters because without it we’d be mute....

I wrote this heart-felt tirade before I began this research. I didn’t know then that Theodor Adorno had written a similar assessment of the possibilities of art as a language in the book he was working on when he died in 1969, Aesthetic Theory:

Artworks become like language in the development of the bindingness of their elements, a wordless syntax even in linguistic works. What these works say is not what their words say.

Looking back, it is rather nice to find that, instinctively, I was on the same page as Adorno. In fact, he was not alone either. A number of mid 20th century aesthetic theories categorise art as a language. And some theories go even further. They acknowledge that art, like science, is a system for creating knowledge, different from, but no less valid than, other epistemological systems.

Epistemological art

The German nuclear physicist Werner Heisenberg (1901-1976) seems unlikely as a champion of art. But in his 1958 book Physics and Philosophy, the pioneer of quantum theory neatly summed up the position that art, like science, is a method for generating knowledge:

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80 Ibid., 74. The complete final sentence in the original article was “Art matters because without it we’d be mute; something less than human.” I now cringe at the hopeless anthropocentricism of this statement. It implies (no matter how unintentionally) that being human is the best possible position to be in, the absolute pinnacle of existence. Faced with the fact that what we are indeed best at is the ruthless and reckless destruction of our planet, and the wilful denial of the consequences of our actions on not only our species, but myriad others, it is no longer advisable (or even fashionable) to seek an answer to the question of what makes humans special, or different from other animals, in the way that theorists such as White, Fisher and MacIntyre did when they posited that our capacity for narrative is what defines us; what sets us apart from the rest of nature. We may be unique, but this certainly doesn’t make us superior. As Claire Colebrook points out, “the human species is now recognizable as a being that for all its seeming diversity is nevertheless bound into a unity of destructive power.” Colebrook, Death of the Posthuman: Essays on Extinction, 9-10.
The two processes, that of science and that of art, are not very different. Both science and art form in the course of the centuries a human language by which we can speak about the more remote parts of reality, and the coherent sets of concepts as well as the different styles of art are different words or groups of words in this language.83

In his extraordinarily lucid and balanced 1997 introduction to aesthetics, Philosophy of Art, Scottish philosopher Gordon Graham explains that the notion that art is epistemological is called cognitivism. He also acknowledges that not all theorists agree that generating knowledge is the business of art.84 However, those who do understand that art has value precisely because (at its best) it offers a unique way to learn about the world and what it means to be human.85

Recent research in neuroscience, psychology and philosophy has sought to ‘prove’ what many artists have known all along; that thinking and learning are embodied activities. The field of embodied cognition, which is a still new area of enquiry, is beyond the scope of this research. However, the salient point, clearly summarised by philosopher Lawrence Shapiro who traces the history, concepts and methodology of the field, is that in opposition to traditional theories of cognition, which conceive of the brain essentially as a computer disconnected from the body, embodied cognition is inextricably linked to corporeal action and the particular idiosyncrasies of each body.86

85 Ibid., 59, 61.
Andy Clark takes this notion even further in his theory of extended cognition, first developed in the 1998 article he co-authored with his fellow philosopher David Chalmers.\(^7\) As Clark explains in his 2008 book, *Supersizing the Mind*:

> [In extended cognition] the actual operations that realize certain forms of human cognizing include inextricable tangles of feedback, feed-forward, and feed-around loops: loops that promiscuously criss-cross the boundaries of brain, body, and world.\(^8\)

In *Mindware*, another of his books on extended cognition, Clark specifically addresses drawing as a cognitive process. As he explains, writing and drawing aren’t just tools used to aid thinking, *they are ways of thinking;* ways to extend cognition beyond the confines of the body.\(^9\) In this way, art becomes a knowledge generating system with two possible modes. Learning can occur through interacting with artworks made by others, through observation, contemplation, and sometimes physical participation. And learning can also happen through the embodied action of making art works. Both of these modes offer access to the ineffable language of art, a lyrical code capable of telling difficult and ambiguous stories.

In the remainder of this chapter I will demonstrate the knowledge generating ability of art using my *Drowned World* series of maps as an example. I will discuss the narratives they contain, encoded in the language of art and ready to be decoded by others, as well as the insights I gained through the embodied process of making the work.

**Cryptographic cartography**

In *The Drowned World*, Ballad gives his main protagonist, Kerans, the task of mapping the tropical lagoons in which the novel is set. As argued in Chapter Two, it is precisely because cartography symbolises rational scientific enquiry that his failure to map the shifting terrain of *The Drowned World* is so metaphorically potent. The failure of Kerans is the failure of science to dominate the natural world. Mapping is


\(^8\) Ibid., xxviii.

never a neutral activity. Maps are always staking a claim or making a point.  

![Image of a map with various flags and symbols, representing nation-states.](image_url)

Figure 65: Alighiero e Boetti, *Mappa*, 1989, embroidery on cotton, 118.7 x 220.3cm. Image courtesy: Gladstone Gallery.

As outlined in Chapter One, theorists in the field of critical cartography have effectively revealed the inherent power structures hidden in all maps and highlighted the fact that they continue to wield political power behind a veil of neutrality. As radical American geographer Denis Wood put it with characteristic flair:

> Once the map's social construction has been masked by every conceivable sign of dispassion; once its authority has been rendered unquestionable; once its ability to transmit the world as it is has been secured beyond doubt; the map is free to commit any violence it chooses. It can display, for example, in lurid pinks and greens and purples, a world smashed into nation-states (fig. 5) and pass it off as... only natural.  

Yet maps are often still perceived as manifestations of unadulterated science, neutral representations of objective truth. Even people who ought to know better cling to this

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Critics of cartography have pointed out that it is the paradoxical nature of maps, the ability of maps to appear objective while actually being deeply subjective, that makes them an attractive form for artists.⁹⁴ For example, according to Wood, “The irresistible tug maps exert on artists arises from the map’s mask of neutral objectivity, from its mask of unauthored dispassion.”⁹⁵ He goes on to say that artists working with maps become critical cartographers by drawing "attention to the world-making power of normative maps."⁹⁶ And they do this by exposing the myth of cartographic neutrality.

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⁹² For example, the philosopher Gordon Graham claims that “the business of the map maker is nonetheless to record information in a neutral way.” Graham, *Philosophy of the Arts: An Introduction to Aesthetics*, 51-52.
⁹⁶ Ibid., 10.
This is the strategy utilised in my series of maps, made in response to The Drowned World. All maps are artefacts deeply embedded in the cultures that make them and the conditions of their time. My Drowned World maps had their genesis in Ballard’s Cold War novel, but they chart our current eschatological crisis. In these drawings I created new coastlines on maps of the world based on a hypothetical ocean-level rise of 70 metres. These artworks picture planetary geography re-shaped in a way that echoes Ballard’s post-apocalyptic vision in The Drowned World, but they are also grounded in the real. Ocean levels are already rising.\footnote{The figure of 70 metres is speculative and is not based on a specific study. However, in an email dated 4 May 2016, Dr Sabin Zahirovic from the University of Sydney School of Geosciences said to me, “I’ve had a chance to think about the whole sea level thing, and I actually think what you’ve done is quite firmly placed in science. I don’t think any scientist would predict that a sea-level rise of that magnitude will occur in the next 100 years, but it’s quite possible that it will occur in the future. From memory, we used a value of 70m of total sea level rise, right? That’s consistent with the National Geographic and other sources I’ve seen, which suggest something like 65m or so.” Dr Zahirovic contributed to my Drowned World maps project by assisting me in using software to plot the proposed new coastlines on all of the maps, with the exception of the Petermann Star, which I plotted by hand.}

![Drowned World: Petermann Star Projection](image)

Figure 67: Tracey Clement, *Drowned World: Petermann Star Projection*, 2014, pencil and rust on paper, 80 x 121cm. Nineteen hours of drawing, September – December 2014. The Petermann Star projection was created in 1865. Photo: Richard Glover.

To date I have produced Drowned World maps using five different projections: Petermann Star (figs. 67, 69, 73), Bonne (figs. 68, 70, 74), Eckert (figs. 66, 75, 76), Buckminster Fuller (fig. 71), and Loximuthal. They are designed to be viewed together as a series. Presenting multiple versions of the same thing, all with their own
inherent distortions,\textsuperscript{98} highlights the fallacy of cartographic neutrality. Clearly there is more than one version of 'truth' at play here. Choosing the most unusual or aesthetically pleasing projections reinforces this point.

I have also deliberately rotated the earth in these projections in order to reorient the focus of the viewer. This is another tactic used to reveal the fact that maps are narrative fictions; stories with political agendas. It is not possible to project a spherical object on to a flat plane without distortion. Each cartographer must make a conscious choice as to where this distortion goes. As Jerry Brotton puts it in his 2012 book, \textit{A History of the World in Twelve Maps}, projections "can be chosen depending on what the mapmaker wanted to highlight – and, by implication, to diminish."\textsuperscript{99} He goes on to explain that most cartography is what he calls "egocentric mapping": most cultures choose to put their own territories in the centre.\textsuperscript{100}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure68.png}
\caption{Figure 68: Tracey Clement, \textit{Drowned World: Bonne Projection}, 2015, pencil and rust on paper, 80 x 121cm. Thirty hours of drawing, February – October 2015. The Bonne projection was created in 1752. Photo: Richard Glover.}
\end{figure}

The Mercator projection is the most well known example of this deliberate warping. In this common world map Europe and North America are enormous and take centre

\textsuperscript{98} All maps of the globe are distorted. Brotton, \textit{A History of the World in Twelve Maps}, 233.
\textsuperscript{99} Ibid.
\textsuperscript{100} Ibid., 9.
But the Bonne (fig. 68) and Eckert (fig. 66) projections of my *Drowned World* maps have been altered so that Africa is dead centre. The southern continent is massive, a much more realistic and politically potent representation of its actual landmass. And in my version of the Loximuthal projection the conventional view of the planet has been inverted. This map highlights the fact that the cartographic tradition of placing north at the top of the map is yet another political tool masquerading as a neutral fact. After all there is no right way up on a spherical object floating in space.¹⁰²

Through deliberate visual tactics, my *Drowned World* maps expose the subjective nature of cartography. Or, to put it another way, they reinforce the notion that science is as much fiction as fact. Following Kermode, it is clear that science (like art or literature) is a way of making sense of the world: it is a narrative structure.¹⁰³ And like any storyteller, science can be an unreliable narrator. This is one of the key messages embedded in these maps. A scientific and/or technological response (the pinnacle of enlightened reason) is unlikely to offer a solution to our climate crisis. Like Ballard’s novel, and all of the other artworks made as part of this research, the *Drowned World* maps are a critique of the Enlightenment.

Decoding the decorative elements (fig. 69) of these maps points to this interpretation. Their design is a nod to 17th century maps such as those used by the Dutch East India Company during ‘the long eighteenth century’ of the Enlightenment.¹⁰⁴ Maps made during this period have a precision and ruthless rationality not found in earlier efforts. Eschewing warnings of the superstitious ‘here be monsters’ kind, these maps were a product of mercantile culture. They documented a project of accelerated globalisation, international capitalism and the subjugation of peoples in recently ‘discovered’ new worlds: all fuelled by the Enlightenment belief in progress and technology. But my *Drowned World* maps picture not progress, but catastrophic

¹⁰¹ For example Europe appears much larger than South America, and North America larger than Africa, despite the fact that these southern continents are around twice as big as their northern counterparts. In 1973 German historian Arno Peters published his own projection as a remedy to the Mercator distortions, which he claimed were politically motivated. Ibid., 378-94.

¹⁰² Williams points out that even supposedly radical maps, such as the 1929 Surrealist map of the world, usually reinforce the political power of the global north. She cites Buckminster Fuller’s projection (see fig. 71) as a map that avoids this pitfall. Williams, "Reconfiguring Place: Art and the Global Imaginary," 469.


¹⁰⁴ This phrase has loose boundaries and is used to extend tighter definitions of the Enlightenment era. The University of Kent’s Centre for Studies in the Long Eighteenth Century use the bracketing dates 1640-1830. “Centre for Studies in the Long Eighteenth Century,” School of English, University of Kent https://www.kent.ac.uk/english/research/centres/18th.html.
change. They chart destructive flooding as most of the major cities worldwide succumb to rising tides; casualties of the climate crisis we have created.\(^{105}\) In these maps this inexorable man-made disaster can be read as the logical (perhaps inevitable) conclusion of the Enlightenment project.

Our complicity in creating our current eschatological crisis is further encoded into the *Drowned World* series by making the most of the conceptual weight inherent in materials and processes. The ‘paint’ used in these maps is rust (ferric oxide).\(^{106}\) Rust occurs when iron, a naturally occurring mineral which has been ripped from the earth,

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\(^{105}\) Many, if not most, of our major metropolises cling to the coast. Traditional seats of power such as London, Beijing, Washington DC, New York, Tokyo, and even Sydney, are all in danger of flooding. Only nine of the largest cities worldwide are likely to escape inundation in this series: Sao Paulo, Brazil; Delhi, India; Tehran, Iran; Mexico City and Toluca, Mexico; Lima, Peru; Moscow, Russia; Istanbul, Turkey; and Chicago, USA. Regions like the American Midwest, maligned as a cultural wasteland and ignorant backwater, could become both desirable and powerful. In addition to Chicago, the large Midwestern cities of Cincinnati, Cleveland, Detroit, Kansas City, Milwaukee, Minneapolis, Pittsburgh and St. Louis are all on high ground. Continents like Africa, by sheer size alone, will be in possession of vast swathes of dry real estate, despite the desolation that will be wrought on millions along the coast. China boasts 18 major metropolises with a population of 1.5 million each that are likely to remain dry, while the UK has only one. In Australia, Canberra is the only big city (and, at around 360,000 people, it’s not that big) that is likely to be spared. A complete list of all the wet and dry cities in my *Drowned World* maps, as well as their population data, can be found in: Appendix C, 302-309.

\(^{106}\) There are no added binders etc. in my rust paint. Wire was soaked in water until rust appeared, then removed, and through a process of dehydration a ‘pigment’ of pure rust was created. I’m not sure if anyone else has done this, but I certainly did ‘invent’ this process without instruction. For more on this process see: Appendix C, 263-301.
smelted, extruded and forged, meets oxygen. It is a powerful symbol of the widespread human attitude that nature is a resource to be exploited. But as manmade iron oxidises so quickly, rust is an equally powerful material representation of the futility of trying to dominate the natural world. When the rusty oceans of these drawings encroach on to land (fig. 70), we are asked to face the fact that we (all of us past and present, worldwide, who participate in the globalised capitalist economy) have had a hand in creating climate-change.

Figure 70: Tracey Clement, *Drowned World: Bonne Projection* (detail), 2015, pencil and rust on paper, 80 x 121cm. Photo: Richard Glover.

In some of the drawings a graphite pencil is used to 'drown' the world instead of rust (fig. 67, 69). The effect is similar, but in these instances it is the action of drawing rather than the qualities of the material that carries the message. The cross-hatched nature of the pencil marks is clearly labour-intensive, it takes a very long time to 'drown' the world in this way. As a result, although the end product is static, these artworks have an important temporal component. The time-consuming nature of these works is a deliberate ploy which again highlights our culpability in creating our current climate crisis. This catastrophe did not just happen: it took centuries of

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107 Rust also can be read as a symbol of the industrial revolution in particular. After all, iron is the main component of all those steam engines that, according to Crutzen and Stoermer, fired up the Anthropocene. Paul J. Crutzen and Eugene F. Stoermer, "The "Anthropocene"," Global Change Newsletter, no. 41 (2000): 17-18.

108 Each map takes around 20-30 hours of labour. Time-lapse videos of the process can be watched here: https://traceyclement.com/category/drowned-world-maps/
dedicated labour, ruthless exploitation of the natural environment, manic consumerism, and blatant disregard for the consequences of our actions to reach this moment in time.

Figure 71: Tracey Clement, *Drowned World: Buckminster Fuller Projection*, 2016, pencil and rust on paper, 80 x 121cm. Twenty-five hours of drawing, August – December 2016. The Buckminster Fuller projection was created in 1943. Photo: Richard Glover.

Careful observation will reveal any or all of the above conclusions to an observer with an analytical mind willing to take the time to become a cryptographer and interpret the narratives inherent in the *Drowned World* maps. Images like these are powerful. They have the ability to convey complex ideas quickly and efficiently using the multivalent language of art, a symbolic code that is able to convey the same content as dry data, but in ways that are both effective and affective. In my *Drowned World* maps, the fact that the climate crisis has major geo-political implications is clear, even at a glance.

I knew this when I began making these drawings. But, somewhat unexpectedly, I discovered that the actual creation of these images, the process of making the works gave me access to further layers of understanding available only to the artist. That I didn’t have a similar reaction while making sculpture for this research may have something to do with the particular qualities of drawing; an indexical relationship
between thought and action that is particularly conducive to gaining the haptic knowledge of extended cognition.109

Figure 72: Tracey Clement working on Drowned World: Eckert Projection, 2016, pencil and rust on paper, 80 x 121cm. Twenty-one hours of drawing, February – June 2016. Photo: T. Clement.

Either way, like a capricious and wilful god, I found I had the power to obliterate whole cities on a whim, symbolically destroying millions of lives and wreaking catastrophic environmental damage with the stroke of my paintbrush or the scratch of my pencil (fig. 72). This embodied action elicited a visceral sensation: a frisson of both fear and loathing as my own complicity and future fate became (literally) painfully obvious. My heart raced and I felt slightly ill.

Reading that the oceans are going to rise and creating a graphic representation of the results are two very different things. By inundating old coastlines and mapping new ones through art, scientific predictions about rising oceans suddenly hit home in a very powerful way. That tsunami of dry data that I just couldn’t face, let alone comes to terms with, crashed over me. Suddenly I understood on a fundamental physical and emotional level the ramifications of the crisis we face.

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109 As noted by Clark, *Mindware: An Introduction to the Philosophy of Cognitive Science*, 149. The fact that the sculptures are all made from multiple units which have little impact individually; the extremely long time-frames (several years) involved in making the sculptures; and the distancing use of machines, such as a MIG welder and sewing machine, may also have contributed to the difference in experience.
Bearing witness at The End

My *Drowned World* drawings, like all maps, are a potent blend of art and science, fact and fiction. These artworks illustrate the key points of this chapter. They highlight the fact that art and science are both narrative structures, fictions which are capable of imparting knowledge. They map our post-climate-change world, a cultural landscape in which ecological catastrophe is an ever present, always looming threat that drives eschatological anxiety, a world in which climate-change is the new Cold War. And, these maps, like the novel *The Drowned World*, tell a post-apocalyptic story. But they are not, as Susan Sontag et al. argue, a numbing act of denial and distraction; they are not an inadequate response to a very real eschatological crisis.

In the third week of May 2017 the Global Seed Vault on the Norwegian island of Spitsbergen flooded, a casualty of what *The Guardian* newspaper reported was “the hottest ever recorded year”. 110 Apparently the permafrost of the Arctic circle is not so permanent after all. Less than a fortnight later, American President Donald Trump withdrew the USA from the Paris climate accord, part of the United Nations Framework Convention on Climate Change designed to mitigate the effects of greenhouse gas emissions. 111

The melting of a glacier or the monomaniacal vision of a powerful politician are both overwhelming, terrifying, seemingly inexorable. How can we deal with such monumental forces? How can we meaningfully respond to the crises of our times? As artists we bear witness. We tell stories.

Art tells stories using a nuanced syntax that cajoles, seduces, inveigles and invites instead of using facts and figures to impose a didactic point of view. Art is a code that invites interpretation, rather than incontrovertible proof that defies debate. Art opens up discussion. Instead of passive listeners browbeaten by experts, art transforms the public into active cryptographers. Artists bear witness, but we don’t just stand by and watch. Creating art, at its best, also creates knowledge, a response that is both appropriate and vital in any crisis.

Additional images

Figure 73: Tracey Clement, *Drowned World: Petermann Star Projection* (detail), 2014, pencil and rust on paper, 80 x 121cm. Photo: Richard Glover.

Figure 74: Tracey Clement, *Drowned World: Bonne Projection* (detail), 2015, pencil and rust on paper, 80 x 121cm. Photo: Richard Glover.
Figure 75: Tracey Clement, *Drowned World: Eckert Projection* (detail), 2016, pencil and rust on paper, 80 x 121cm. Photo: Richard Glover.

Figure 76: Tracey Clement, *Drowned World: Eckert Projection* (detail), 2016, pencil and rust on paper, 80 x 121cm. Photo: Richard Glover.
Chapter Five: The ruined city

A ruined metropolis, mired in the still water of tropical lagoons, is the key symbol in J.G. Ballard's novel *The Drowned World*.

The bulk of the city had long since vanished, and only the steel-supported buildings of the central commercial and financial areas had survived the encroaching flood waters. The brick houses and single-story factories of the suburbs had disappeared completely below the shifting tides of silt. Where these broke surface giant forests reared up into the burning dull-green sky... Now they were to abandon yet another city.¹

Dwarfed by towering trees, penetrated by vines and colonised by enormous glittering dragonflies, the beleaguered city described in Ballard's novel is ostensibly London. But, as discussed in Chapter Three, the author makes it clear from the very beginning that the precise location of his post-apocalyptic scenario doesn't matter:² his city is both metaphorical and imaginary. Nevertheless, close reading of *The Drowned World* reveals that several real ruined cities also occupy the current intertextual realm of the novel, cities such as Pripyat, New Orleans and Hiroshima. And, as this chapter will demonstrate, these cities, like all cities, are symbolic.

The shadow of Hiroshima

At 8:15am on 6 August 1945 an atomic bomb was dropped on a city for the first time (fig. 77). Hiroshima, population approximately 255,000,³ was reduced to a 1.6 km radius of rubble, punctuated occasionally by charred trees, precariously standing shards of buildings and a few structures, by some miracle, partially intact (figs. 78, 79, 80).

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² Ibid., 9.
In this single gesture mankind usurped a power previously reserved for earthquakes, tsunamis, cyclones and vengeful deities: an entire city was laid waste in an instant.\(^5\)

Figure 77: An aerial photo of Hiroshima shortly after the atomic bomb was dropped, 6 August 1945. Image courtesy: CNN.

On 31 August 1946, little more than a year after the blast that destroyed Hiroshima, \textit{The New Yorker} magazine published John Hersey’s account of the catastrophe. Hersey (1914-1993) was an American journalist and Pulitzer Prize winning novelist.\(^6\) In the northern hemisphere spring of 1946\(^7\) he travelled to Hiroshima and interviewed six survivors. Their first-hand accounts gave victims of the atrocity a human face for the first time. According to a BBC piece commemorating the 70\(^{\text{th}}\) anniversary of the story, “Readers who sent letters to \textit{The New Yorker} wrote of their shame and horror that ordinary people, just like them – secretaries and mothers, doctors and priests – had endured such terror.”\(^8\)

\(^4\) “In Hiroshima almost everything up to about one mile from X was completely destroyed, except for a small number (about 50) of heavily reinforced concrete buildings, most of which were specially designed to withstand earthquake shock, which were not collapsed by the blast; most of these buildings had their interiors completely gutted, and all windows, doors, sashes, and frames ripped out.” 


\(^6\) Hersey won the prize for his 1944 novel, \textit{A Bell for Adano}.

\(^7\) It is likely that Hersey travelled in March-April 1946. The last date mentioned in his interviews is 15 April. John Hersey, \textit{Hiroshima} (New York: A. A. Knopf, 1980), 112.

Hersey’s original article was also published in 1946 as a book titled \textit{Hiroshima}, translated into multiple languages and widely disseminated. This book helped to burn the image of the ruined city permanently into the Cold War psyche.\footnote{Ibid.}

Miss Sasaki, the only woman Hersey interviewed, told the author that she returned to Hiroshima on 9 September 1945, almost exactly one month after the initial attack. Hersey describes how Miss Sasaki was apparently appalled to find that while her city had been utterly destroyed by the bomb, and everyone she knew was wounded, dead or missing, the local vegetation had been flourishing:

Over everything – up through the wreckage of the city, in gutters, along the river banks, tangled among tiles and tin roofing, climbing on charred tree trunks – was a blanket of fresh, vivid, lush, optimistic green; the verdancy rose even from the foundations of ruined houses. Weeds already hid the ashes, and wildflowers were in bloom among the city's bones.\footnote{Hersey, \textit{Hiroshima}, 91. These are Hersey's words, not Miss Sasaki's.}

This uncanny description of a post-apocalyptic city shrouded in the creeping tendrils of vines could have been lifted from \textit{The Drowned World}. Hiroshima was effectively
crushed, literally flattened, but its ruins cast long shadows. The shattered, violent absence of this devastated city became a spectre that haunted the Cold War era, and it is made manifest in Ballard's novel.

In fact, the ruined city is, arguably, Ballard's key image as novelist. In his 1985 essay, 'J.G. Ballard's Ambiguous Apocalypse,' Lorenz J. Firsching, a Professor in History, Philosophy and Social Science at SUNY, Broome, declared, "As for the Ballardian City, clearly it is an icon..." Firsching emphasised the symbolic role of the city in half a dozen of Ballard's stories, noting that it is perhaps most striking in his vision of an inundated metropolis. As he put it, "The themes of birth, death, and the city achieve their greatest structural unity and create the deepest sense of ambiguity in The Drowned World."

Sebastian Groes from the University of Roehampton in London has written extensively on Ballard's propensity for destroying the city. In his 2011 book, The

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12 The 'disaster quartet' and two 1976 short stories: "The Ultimate City" and "Low–flying Aircraft.


13 Ibid., 302.
Making of London, Groes examines several of Ballard's works in which the city, and its ruination through either natural disaster or dystopian social structures and other man-made acts of destruction, is the main subject.14 Groes sums up the key role that destroying the metropolis plays in Ballard's fiction in his earlier chapter, ‘From Shanghai to Shepperton: Crises of Representation in J.G. Ballard's Londons,’ from the 2008 book J.G. Ballard:

One of the great creative forces behind J.G. Ballard's writing is his antagonism towards cities, and London in particular. Since the beginning of his writing career, the author has drowned it, set it on fire, and blown it up – with highly original and imaginative results.15

And in focusing on the ruined city, Ballard tapped into a human obsession with a lineage that stretches far beyond the anxieties of the Cold War.

I will lay thy cities waste

In his chapter for Wounded Cities, a 2015 book that focuses on visual representations of urban catastrophes, Marco Folin points out that the ruined metropolis has been a perennial image in Western culture, and one that is particularly prevalent in the Bible.16 Indeed, the Bible contains at least 40 verses on the destruction of cities,17 but just one is enough to get the full chilling effect.


In Ezekiel 35:4, from the King James version, the Old Testament God wishes to send a message; a demonstration of omnipotence through a symbolic gesture of destruction, and the city, as the embodiment of human achievement, is the obvious target:

I will lay thy cities waste, and thou shalt be desolate, and thou shalt know that I am the LORD.\(^{18}\)

Figure 80: John Martin, *The Great Day of his Wrath*, 1851-1853, oil paint on canvas, 196.5 x 303.2cm. Image courtesy: Tate Britain. The Victorian painter was known for depicting the wrath of God with verve.

In a press release issued 16 hours after destroying Hiroshima (and some 59 hours before subjecting Nagasaki to the same treatment) American President Harry S Truman acknowledged the seemingly omnipotent power of his atomic messenger:

It is an atomic bomb. It is a harnessing of the basic power of the universe. The force from which the sun draws its power has been loosed against those who brought war to the Far East… We are now prepared to obliterate more rapidly and completely every productive enterprise the Japanese have above ground in any city. *We shall destroy their docks, their factories, and their communications. Let*

there be no mistake; we shall completely destroy Japan's power to make war.\textsuperscript{19}

Truman was well aware that destroying a city is a potent allegorical act. The primary aim of bombing Hiroshima (and later Nagasaki) was not to kill and maim tens of thousands of civilians. It is not a coincidence that Truman’s threat so closely resembles the words of a vengeful god. Like the biblical destruction of Sodom and Gomorrah, it was a symbolic punishment and demonstration of power. And Ballard too noted similarities between biblical and government sanctioned acts of violence against cities. As he wrote in \textit{The Drowned World}:

Phantoms slid imperceptibly from nightmare to reality and back again, the terrestrial and psychic landscapes were now indistinguishable, as they had been at Hiroshima and Auschwitz, Golgotha and Gomorrah.\textsuperscript{20}

And Truman’s threatening words are also a telling reminder that, since the advent of modernity at least, a city is more likely to be destroyed by a demagogue than a demi-god.\textsuperscript{21}

But regardless of which omnipotent forces are responsible for laying waste a metropolis, the ruined city remains a terrifying prospect. As Philippe Malgouyres put it in his chapter for \textit{Wounded Cities}, obliterating a city “is the greatest form of disruption, and has far greater significance than countless human deaths.”\textsuperscript{22} By this he does not mean that human suffering is irrelevant; what he is trying to say is that the city is a symbol. Crushing a city strikes us where we live, both literally and psychologically.


\textsuperscript{20} Ballard, \textit{The Drowned World}, 67.

\textsuperscript{21} Folin notes that scenes of ruination were both common and largely interpreted as secular by the 17th century. Folin, "Transient Cities: Representations of Urban Destruction in European Iconography in the Fourteenth to Seventeenth Centuries," 19.

\textsuperscript{22} Philippe Malgouyres, "The Destruction of the City: A Pledge of Salvation? Some Reflections About Monsu Desiderio and the Genre of "Destruction Painting"," ibid., 118.
According to the most recent United Nations report on global urbanisation, 54% of the human population worldwide now lives in urban centres. In more than 45 countries, including Australia, the USA, the UK, Mexico, France, Spain, Norway, Uruguay, Brazil, Israel, Gabon, Jordan and Qatar, this figure is 80% or higher. But the city is more than a place to live. The city is aspirational; it represents the pinnacle of humanist culture: the city is the repository of art and knowledge, the place where both scientific and philosophical enquiry takes place.

John Stathatos, guest editor of the Art & Design journal special issue: Art & The City, points out that since the time of the ancient city-states the polis has been the site of not only politics, but also literary and artistic achievement. “From wherever you care to stand, it seems that cities, for better or worse, are where the action is,” he says, “at the end of the day, the prevailing view has been that to turn one’s back on the city is tantamount to stepping outside history.” Linda Williams, leader of the Arts, Ecology, Globalisation and the Interpretation of Science (AEGIS) research network at the RMIT in Melbourne, argues that this attitude can trace its lineage back to the time when cities were literally fortresses, walled enclaves, providing an actual barrier between the civilised inside and the uncivilised outside.

Malgouyres nicely sums up the positive, aspirational symbolism of the metropolis. “The city manifests man’s conceptual and technical abilities,” he says, “and is the

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24 Of course the city can also be a site of gross inequity and privation. As Schneider and Susser put it, there is a "mounting crisis of contemporary urban life." Jane Schneider and Ida Susser, "Wounded Cities: Deconstruction and Reconstruction in a Globalized World," in Wounded Cities: Deconstruction and Reconstruction in a Globalized World, ed. Jane Schneider and Ida Susser (Oxford: Berg, 2003), 1. The dual nature of the city, as site of both creativity and repression, is one of Mumford’s key arguments in his seminal 1961 text. Mumford traced the origins of cities from their beginnings as walled citadels, and with such a lineage it is not surprising to find that as well as being the repository of human knowledge they are also the seat of power and the locus of institutionalised domination. This includes the subjugation of nature, the legislative manipulation of some individuals and the enslavement of others, and the bloody conquest of peoples deemed uncivilized. This ideas inform the entire book. Lewis Mumford, The City in History: Its Origins, Its Transformations and Its Prospects, first ed. (London: Secker & Warburg, 1961).
26 Linda Williams, "Reconfiguring Place: Art and the Global Imaginary," in The Sage Handbook of Globalization, ed. Manfred B. Steger, Paul Battersby, and Joseph M. Siracusa (Thousand Oaks, CA: Sage Publications, 2014), 470-75. Following Lewis Mumford, she also notes the influence of the fortress city on shaping ‘civilised’ desires to dominate, including attitudes to the nonhuman world, saying, “humanist divisions also bear the signs of an older way of thinking about the world which I have suggested have their basis in the spatial model in which the core of the city is privileged over its periphery, and the non-human world is relegated to the margins of civilization.” (475)
materialization of the highest attributes of his intelligence.”27 Because of this, destroying a city, even hypothetically, packs an emotional punch: it is gut wrenching, heart-breaking, spine-tingling. And imaginative works of fiction (including myths, artworks, literature and, more recently, films) have been making the most of this effect for millennia by repeatedly laying cities waste.28

Figure 81: ‘Deluge,’ 1933, features spectacular images of (a model) New York City, smashed by a giant tidal wave. Since that time cities have been destroyed in films over and over again. Still from ‘Deluge,’ 1933, dir. Felix E. Feist, RKO Radio Pictures.

As noted in Chapter One, film is not the subject of this research. But it is worth pointing out that Susan Sontag was right when she argued that the devastated city is a key image in B-grade sci-fi disaster movies, what she calls “terminal dramas”.29 From the very beginning the city destroyed has been an important trope in disaster

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28 Malgouyres discusses the centuries-long appeal of images of ruined cities. He cites as an example the fact that depictions of the biblical story of Noah and the Great Flood often include inundated cities, even though cities do not feature in Old Testament descriptions of the event. Ibid.
But both authors and artists have been using it for a lot longer. Indeed, since Atlantis disappeared beneath the waves, cities have been destroyed in literature and artworks over and over again.

Here are just few examples that, like *The Drowned World*, imaginatively submerge cities. Leonardo da Vinci executed a series of 11 *Deluge* drawings, 1517-1518 (fig. 116). In several of these an almost abstract city is swept up in swirling waves. In 1607, Edward White published a pamphlet documenting a catastrophic English flood (fig. 117). It featured a wood-cut print in which an entire town is submerged and cows, goats, sheep, pigs and people all struggle in the waves. Richard Jefferies drowned England’s biggest city in his very early post-apocalyptic novel, *After London*, 1885. In Max Ernst’s surrealist masterpiece, *Europe After the Rain*, 1940-1942 (fig. 82), the flood implied by the title is no longer evident and the havoc it has wrought on a twisted, hyper-organic city is clearly allegorical. In 2007, Will Self, perhaps in homage to his friend Ballard’s 1962 effort, again drowned the city of London in his novel *The Book of Dave*. Paolo Bacigalupi’s young adult novel *The Drowned Cities*, and Kim

30 According to a Google search for “earliest disaster movie” five of the first six disaster films feature cities under threat and/or destroyed. The exception is the first, ‘In Nacht und Eis,’ 1912, a dramatization of the Titanic disaster. In King Kong, 1933, a giant gorilla threatens New York; in *Deluge*, 1933, New York City is destroyed; ‘The Last Days of Pompeii,’ 1935, dramatizes one of the earliest recorded urban catastrophes; ‘San Francisco,’ 1936, is a musical set against the backdrop of the earthquake that destroyed the city; ‘Noah’s Ark,’ 1938, features drowning Babylonian cities. ‘Deluge,’ 1933, features spectacular images of (a model) New York City, smashed by a giant tidal wave. Since that time cities have been destroyed in films over and over again. The list is too long to mention here, but it is worth noting that the scene in ‘Deluge’ (fig. 81) in which the Statue of Liberty is overwhelmed by a massive wave is reproduced almost exactly in the 1998 film ‘Deep Impact’ (fig. 17).


Stanley Robinson’s sci-fi novel 2312, which features a flooded Manhattan, were both published in 2012.33

Major cities have been ruined repeatedly in fictional works of art. But history is also littered with the ruined remains of real metropolises. From ancient Pompeii shrouded in the ash of Mount Vesuvius and Lisbon flooded by a tsunami in 1755, to San Francisco and Port-au-Prince levelled by earthquakes in 1906 and 2010 respectively, the ruined city is a scene we know all too well.

**The real drowned world**

Our cities have always been vulnerable to the violent effects of earth, air, fire and water: elemental forces well and truly beyond human control. But our urban centres are also susceptible to threats from within, vulnerable to intentional human acts of destruction. Long before Hiroshima was subjected to our terrible ability to destroy a metropolis in seconds, wars wrecked cities at a slower, but no less devastating, pace. And they continue to do so.

And cities are also destroyed by more insidious man-made institutions such as the market forces of neo-liberal capitalism. In recent decades, for example, large parts of Detroit34 were reduced to ruins by a slow process of attrition, while cities such as Beijing (and arguably Sydney) are currently being destroyed by rapacious greed and unfettered development. As urban ethnographers Jane Schneider and Ida Susser put it in their 2003 edited anthology, also titled *Wounded Cities,*35 “Increasingly, urban

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33 ‘2012’ was also the title of a 2009 disaster movie, dir. Roland Emmerich, in which the entire planet is flooded. For a fascinating discussion of the political subtext of this film (and Emmerich’s other disaster films, ‘Independence Day,’ 1996, and ‘The Day After Tomorrow,’ 2004), see: Despina Kakoudaki, “Representing Politics in Disaster Films,” *International Journal of Media and Cultural Politics* 7, no. 3 (2011): 349-56. 2012 was a big year for post-apocalyptic stories, perhaps spurred on by the widely publicised assertions that the Mayan calendar set 21 December 2012 as the day the world would end. The prediction was founded on poor data according to NASA. "Beyond 2012: Why the World Didn't End," NASA, https://www.nasa.gov/topics/earth/features/2012.html.

34 Detroit is probably the most famous post-industrial city, but it is not the only one. Photographer Camilo José Vergara documented the ruination by neglect of several major American cities over a period of about a decade. Camilo José Vergara, *American Ruins* (New York: The Monacelli Press, 1999). Closer to home, both Newcastle and Wollongong in NSW could be considered post-industrial after losing their major industries.

35 The image of a wounded city is so potent that it has been used as the title for not one, but two recent publications: Jane Schneider and Ida Susser, eds., *Wounded Cities: Deconstruction and Reconstruction in a Globalized World* (Oxford: Berg, 2003); Marco Folin and Monica Preti, eds., *Wounded Cities: The Representation of Urban Disasters in European Art (14th-20th Centuries)*, Art and Material Culture in Medieval and Renaissance Europe (Leiden: Brill, 2015).
wounds also result from globalization processes, unfolding with few constraints since the 1980s.\textsuperscript{36}

Of course, many catastrophes don't adhere to neat binary systems of categorisation. They are not wholly attributable to either acts of nature or the actions or inaction of man. Instead they are the result of an unfortunate combination of both: working together, man and nature wreak maximum havoc. The Great Fire of London in 1666 was one such occasion. The wind and heat of August conspired with the ineptitude of the human response to make it a disaster of apocalyptic magnitude.\textsuperscript{37}

![Image of a boat out of water with text](image.png)

Figure 83: Fukushima prefecture post-tsunami, 2011. This image of a boat out of water has a distinct Ballardian edge; a perfect picture of the real drowned world. Image courtesy: Imgur.

A more recent example is the tsunami that hit the Fukushima prefecture and surrounding districts in Japan on 11 March 2011 (figs. 83, 114).\textsuperscript{38} This massive wave (the result of an earthquake) was destructive in its own right, but the catastrophe was made so much worse by placing a nuclear power station in its path. When man and nature collude and collide in this way the level of devastation increases exponentially.\textsuperscript{39}

\textsuperscript{36} Schneider and Susser, "Wounded Cities: Deconstruction and Reconstruction in a Globalized World," 1. Their chapter, and indeed the whole book, examines the deleterious effects of global capitalism on cities (and their citizens).

\textsuperscript{37} Folin cites the Great Fire of London 1666 as "one of the greatest catastrophes of the age." Folin, "Transient Cities: Representations of Urban Destruction in European Iconography in the Fourteenth to Seventeenth Centuries," 26.


\textsuperscript{39} Despina Kakoudaki points out that in disaster films, humans and their corporations often make things worse through greed, inaction or corruption. In this way, these films echo events in real life. Kakoudaki, "Representing Politics in Disaster Films," 351.
Now climate is the ever-present prime example of the forces of nature and the foibles of man locked in a death spiral of destruction. We have effected this synergistic system in ways that we can neither fully understand nor control, and the results of our climate crisis have already proved to be catastrophic.

In the distance, a city of skyscrapers, arranged neatly from shortest to tallest and back down again, rises from the brackish surface of a vast lake. A network of wide roads snakes out of the city. They arch up and over each other, then dip below the water only to emerge again like the serpentine arcs of a great sea monster. The water of the lake is perfectly still, it reflects thousands of houses: a sprawling suburban archipelago.\footnote{40}

The above passage wasn’t written by J.G. Ballard, Kim Stanley Robinson or any other master of sci-fi. This isn’t fiction, but a description of fact. It was written as part of this research in response to an image shot by Associated Press photographer David J. Phillip on 10 September 2005 (fig. 84), nearly two weeks after Hurricane Katrina submerged the city of New Orleans.

Figure 84: New Orleans on 10 September 2005, some two weeks after Hurricane Katrina made landfall on the Gulf Coast. Photo: David J. Phillip.

\footnote{40} I wrote this text in response to a photo of post-Katrina New Orleans, shot by Associated Press photographer David J. Phillip on 10 September 2005.
In many ways this disaster was not unique. Cities have been flooded before. But the fact that it took place in a major America metropolis (symbolic heart of both capitalism and the first world) transformed this catastrophe into a wake-up call for the privileged West: if it can happen there it can happen anywhere. And Katrina revealed more than the fragility of man-made structures in the face of the awesome power of nature. As Timothy Garton Ash, Professor of European Studies at Oxford University, put it in a *Los Angeles Times* article dated 8 September 2005:

> [W]hat's under threat here is simply civilization, the thin crust we lay across the seething magma of nature, including human nature. New Orleans opened a small hole through which we glimpsed what always lies below.\(^{41}\)

As I have been arguing throughout this chapter, every destroyed city is a symbol. In the aftermath of Katrina, New Orleans has come to represent both the terrible power of nature and the dark side of human nature in the era of man-made climate-change.

Hurricane Katrina made landfall in late August 2005, more than four decades after Ballard wrote *The Drowned World*. But despite this temporal disconnect, New Orleans post-Katrina is the second city that currently haunts the intertextual landscape of Ballard’s novel. After 2005, as argued in Chapter Four, climate-change began to feel less like a future we could prevent and more like a slow motion catastrophe already on the move. And while some stalwart deniers remain, to read *The Drowned World* with the ruined city of New Orleans added to its imaginary geography is to understand that we are already living in the post-climate-change age. We are already living in the real drowned world.\(^{42}\)

Living in the real drowned world does not mean that all the cities of the world are literally submerged, although catastrophic floods\(^{43}\) are becoming increasingly frequent. To live in the real drowned world is to understand that the idea that culture can dominate nature is at best illusory, at worst wilfully dangerous.

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\(^{43}\) For example, at the time of writing this chapter (31 March 2017), in an awful instance of synchronicity, Lismore in northern NSW was completely flooded by Cyclone Debbie.
The post-apocalyptic city

For millennia, urban architecture has embodied the triumph of human will: the incredible energy that drives all of our myriad achievements, both impressive and reprehensible. However, as will be argued below, visible in the shadows of every city is its ruined remains. And once ruined, a city tells a different story.

Figure 85: Giovanni Piranesi, Views of Rome: View of the Flavian Amphitheatre known as the Colosseum, 1760-78, etching on paper, 49.5 x 71.8 cm. Image courtesy: UCL Library Special Collections.

Brian Dillon, curator of the 2014 exhibition Ruin Lust at Tate Britain, argues that since at least the 18th century ruins have been interpreted as symbolic warnings of the pitfalls of hubris, not just relics of the splendid past.44 He cites as evidence an etching of ruins by Giovanni Piranesi (fig. 85),45 saying that it can be seen “as a case study in the doomed arrogance of our race.”46 Indeed, a ruined city is no longer about conquest in all its multiple forms: the quest for knowledge, the domination of nature and other peoples, the capture of territory. Instead it is the visible remains of failed aspiration and ambition: pride before the inevitable, relentlessly cyclical, fall.

46 Ibid., 6.
Writing in 2006, and specifically addressing the impact of Katrina, Matthew Gandy, a geographer at University College London, said, “The political history of urban infrastructure has been one of crisis, reconstruction, and neglect, a cycle that becomes ever more worrying in relation to the twin threats of climate change and the denigration of the public realm.”\(^{47}\) In ‘Transient Cities,’ his chapter for *Wounded Cities*, Marco Folin argues that this cycle of destruction and renewal is literally built into cities. As he says:

This attribute is such an integral part of the essence of the Western city that it characterizes imaginary cities quite as much as the real ones, standing as a common denominator of the great metropolises both of classical mythology – from Troy to Atlantis – and the biblical tradition: Babylon, Sodom and Gomorrah, the Rome of the Apocalypse. It almost seems that in the West you could not conceive of a city without also automatically thinking of the image of its possible, indeed probable destruction.\(^{48}\)

Taking this notion a step further, I argue that every city can be read as a *memento mori*, a reminder of our own inevitable mortality. The city destroyed is such a potent image because deep down we know that all of our endeavours, like our corporeal selves, are transient, fragile, finite: part of a perpetual, inexorable cycle of growth and decay. In setting his end of the world scenario in a drowned metropolis Ballard tapped into something we understand instinctively: every city is built on its own ruins, both of the past and those still to come. Every city is always-already devastated, post-apocalyptic.

As Kermode argues so persuasively, post-apocalyptic narratives have a perennial appeal. But it is not just because, as he insists, they offer a ‘sense of an ending,’ a glimmer of certainty in a world of chaos.\(^{49}\) It is also because they offer hope. Catastrophe and survival are two key elements in any post-apocalyptic story. Like their biblical precursors, secular post-apocalyptic stories are not just visions of destruction; they are a glimpse of a possible future. Post-apocalyptic narratives, like ruins, are an invitation to look both forward and back.

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\(^{48}\) Folin, "Transient Cities: Representations of Urban Destruction in European Iconography in the Fourteenth to Seventeenth Centuries," 3-4.

\(^{49}\) The arguments Kermode makes in his seminal text, *A Sense of an Ending*, are outlined in Chapter Four.
As Julia Hell and Andreas Schönle put it in their introduction to the 2010 anthology, *Ruins of Modernity*:

[Ruin gazing] always involves reflections about history: about the nature of the event, the meaning of the past for the present, the nature of history itself as eternal cycle, progress, apocalypse, or murderous dialectic process. ⁵⁰

![Figure 86: Diderot was responding to the works by Hubert Robert, an artist known for his paintings of picturesque ruins. Hubert Robert, Arches in Ruins, c. 1700s, oil on canvas, 58.7 x 155.6cm. Image courtesy: Metropolitan Museum.](image)

As early as 1767 it was understood that ruins embody a kind of post-apocalyptic narrative. As Denis Diderot, French grandfather of both the encyclopaedia and art criticism, explained:

Our glance lingers over the debris of a triumphal arch, portico, a pyramid, a temple, a palace, and we retreat into ourselves; we contemplate the ravages of time, and in our imagination we scatter the rubble of the very buildings in which we live over the ground; in that moment solitude and silence prevail around us, we *are the sole survivors of an entire nation that is no more*. Such is the first tenet of the poetics of ruins. ⁵¹

The interpenetration of past, present and future is a fundamental characteristic of both post-apocalyptic stories and ruins. Dillon calls this temporal slippage the “confused chronologies” of ruins. ⁵² While, as highlighted in Chapter Two, Frederic

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Jameson describes it as a sci-fi tactic, “a structurally unique “method” for apprehending the present as history”. By combining this “method” with the trope of the ruined city, Ballard amplified the ability of The Drowned World to force us to examine the present as the past of the post-apocalyptic future.

But, as I’ve outlined in this chapter, all cities and all ruins have this capacity. And as a crushed remnant of the symbolic site of human aspirations, the ruined metropolis is the ultimate ruin: a challenge to human hubris that asks us to consider how actions in the present will reverberate through the future. As such, images of the ruined city can be utilised as powerful political tools.

**Tactical ruins**

President Truman knew exactly what he was doing when he dropped the bombs Little Boy and Fat Man on Hiroshima and Nagasaki (figs. 112, 87). In his 2012 book, The Rise of Nuclear Fear, nuclear physicist Spencer R. Weart argues that these acts of mass destruction were symbolic gestures that were used to advantage throughout the Cold War:

> [I]t is precisely *as representation* that nuclear weapons exerted their influence. Even the Hiroshima and Nagasaki bombings were conceived as *rhetorical acts*. Afterward, governments did not manufacture hydrogen bombs with an intention to explode them over cities; their purpose was to intimidate people or awe them.

Once these two cities were destroyed, Weart argues, the Cold War became a war of images. “It was as if every bomb contained within itself the entire apocalypse,” he says. The symbolic destructive power of nuclear weapons was enough, in theory, to deter anyone from actually detonating them again. This policy became known by the perfect acronym: MAD (mutually assured destruction). And although the proliferation of nuclear weapons during the Cold War created deep eschatological anxieties and

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56 Ibid., 266.
very real risks, Weart is right when he insists that, “By the 1980s it was clear to all careful thinkers that nuclear policy had less to do with the physical weapons than with the images they aroused.”

And while the Cold War superpowers jostled for position at the top of their teetering nuclear stockpiles, as they descended into the madness of MAD, the image of the ruined city was also deployed strategically by anti-nuclear campaigns.

In 1970, 25 years after the initial blasts, filmed footage of the devastation wrought by the atomic bombs dropped on Japan finally became widely dispersed through the release of the short documentary, *Hiroshima-Nagasaki, August 1945*, made by Erik Barnouw, then chairman of the film, radio and television division at Columbia University, New York. Thanks to this short film, which was based on footage shot in 1945 by Akira Iwasaki, harrowing images of the metropolis destroyed reached new audiences around the world.

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57 Ibid., 235. Weart cites as an example Reagan's proposed space missiles, his infamous 'Star Wars' program, saying, “It was not necessary to actually build anything.” (237)
The film was mostly composed of images of ruins and rubble. Footage of wounded and dead bodies was scarce, either actually lost or deliberately mislaid by the American military. Barnouw and his team had to make the most of what was left, and the impact of *Hiroshima-Nagasaki, August 1945* was powerful. Weart cites a 4 August 1970 *New York Times* article by Jack Gould who reported that when confronted with these images of the ruined city, and the horrific reality of the atomic bomb, some viewers fainted. Others responded by calling for nuclear disarmament.

Running in parallel to anti-nuclear campaigns, in the late 1960s and early 1970s the burgeoning environmental movement also demonstrated how a single potent image could be used to galvanise public awareness. In this case, earth seen for the first time from space. These images were sent back by the Apollo 8 mission, which orbited the moon in 1968 (fig. 118), and the 1972 Apollo 17 mission (fig. 89), the last mission to land on the lunar surface. Both Denis Cosgrove, in his 2001 book *Apollo’s Eye*, and Ursula K. Heise, in her 2008 book *Sense of Place and Sense of Planet*, trace their cultural impact.

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59 Ibid., 93-94.
60 Weart points out that the survivors from Hiroshima and Nagasaki used the film as a tool in their anti-nuclear campaigns. Weart, *The Rise of Nuclear Fear*, 228-29. Writing in the Cold War climate of 1982 Barnouw said, “I produced the short film *Hiroshima-Nagasaki, August 1945* with the hope that it would be seen by as many people as possible on all sides of every iron curtain. If a film can have the slightest deterrent effect, it may be needed now more than ever. Fortunately it is achieving a widening distribution.” Barnouw, "The Hiroshima-Nagasaki Footage: A Report," 99.
61 *Earthrise* from the 1968 Apollo 8 mission, depicts the earth partially in shadow as it appears to rise from the POY of the moon (fig. 118), and NASA number AS17-148-22727 (fig. 89) (the Whole Earth pic) is from Apollo 17, 1972. Denis Cosgrove, *Apollo’s Eye: A Cartographic Genealogy of the Earth in the Western Imagination* (Baltimore: Johns Hopkins University Press, 2001), 258-59.
Earth seen from space provoked the realisation that our planet is insignificantly small in the vast reaches of the universe; fragile and vulnerable. As Heise puts it, “Set against a black background like a precious jewel in a case of velvet, the planet here appears as a single entity, united, limited, and delicately beautiful.” The effect of these images was profound; they changed the way we see our planet. As Cosgrove

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63 Heise notes that both Marshall McLuhan and James Lovelock were influenced by the Apollo images, and she points out that the subsequent influence of these authors (through notions of the global village and the Gaia hypothesis) are inextricably linked to the impact of these photographs. Ibid., 22-23. Cosgrove also notes the importance of Lovelock. Photo AS17-148-22727 was the cover image on James Lovelock’s influential 1978 book, *Gaia*, which Cosgrove describes as “perhaps the most eloquent and influential statement of whole-earth globalism”. It was also adopted as the Earth Day logo in the USA and was used by the Friends of the Earth lobby group. Cosgrove, *Apollo’s Eye: A Cartographic Genealogy of the Earth in the Western Imagination*, 263.
says, “[The Apollo space project’s] most enduring cultural impact has not been knowledge of the Moon, but an altered image of the earth.”

Yet, despite compelling evidence that they can instigate change, our current eschatological crisis still lacks a single effective image. We are presented with pictures of sad polar bears stranded on tiny chunks of ice drifting in the increasingly warm seas of the Arctic. And while these images may elicit tears (and they certainly do) they fail to evoke a sense of imminent peril in those of us who live in warmer climes, and that is nearly all of us. The frozen north and south may be the front lines of the climate crisis but they are too distant, too remote, too wild and cold to embody the very real threat that we all face. As Weart puts it, we have yet to “come up with convincing pictures of what climate change might realistically mean.”

The ruined city is an obvious choice as an image which could raise awareness about the dangerous realities of our current climate crisis. It has proven its worth as metaphor in the last eschatological crisis, and for centuries prior. The metropolis devastated is personal: the city is where we live.

But as Weart points out, images of real cities destroyed by floods, droughts and hurricanes run the risk of being interpreted as simply evidence of bad (admittedly very bad) weather. Even the powerful image of New Orleans post-Katrina, which did serve to bring home the reality of climate-change to many, was still interpreted by some as simply the aftermath of a major hurricane; a violent act of nature in which man was the victim, and could not be held to account.

But we need to find a way to accept our culpability. Once again, fiction may be more effective than fact. Our two most recent eschatological crises, the Cold War and climate-change, are both dramas in a narrative which humanity has written. In the remainder of this chapter I will argue that art, specifically sculptures in the form of ruined scale-model cities, can be a powerful way to tell this story. Like the post-apocalyptic metropolis in Ballard's *The Drowned World*, evocative visions of miniature ruined cities are able to effectively highlight the dangers of human hubris.

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64 Apollo's Eye: A Cartographic Genealogy of the Earth in the Western Imagination, 257.
66 Ibid., 297-98.
67 A Google search for “Hurricane Katrina was not caused by global warming” will produce multiple results. For example: Matthew Moore, "Hurricanes 'Are Not Caused by Global Warming'," *The Telegraph* 2008.
Disaster writ small

Scale-model cities are conventionally displayed so that the viewer takes a 'god's eye view' like a triumphant ruler surveying his domain. In this way they display their genealogical relationship to maps as artefacts inscribed with inherent power structures. The miniature city can be dominated, contained, ruled (even if only through wishful thinking). Demagogues throughout the ages have used scale-models of real cities to plan conquests and town planners today use them to plot a different type of control.

But even if the desires they represent are not always benign, scale-models of cities are a form of mapping that is particularly aspirational. Drawing on their relationship to architectural models, a model of a city is inherently utopian: it represents an idea, a vision of hope for the future made manifest in miniature. It is real, but not fully realised. In this way, a scale-model city is infused with potential.

With this in mind, it is not surprising to find that artists have been attracted to the possibilities of the model city. As German editor and curator Lukas Feireiss puts it in Imagine Architecture, his 2014 book on artworks which utilise architectural tropes and traditions, “Architecture – understood in the broadest sense – has become a highly influential form of imagining in the visual arts.” Nor is it unexpected that many of the model city sculptures located as part of this research have a definite utopian slant.

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68 The relationship between maps and power is outlined in depth in Chapters One and Four.
69 “Since the fifteenth century, models have been produced not only to please aesthetically but to survey a realm, particularly a territory’s fortifications; to plan military campaigns; and to impress foreign rulers or other viewers in a sort of specular containment policy.” Helmut Puff, "Ruins as Models: Displaying Destruction in Postwar Germany," in Ruins of Modernity, ed. Julia Hell and Andreas Schönle, Politics, History, and Culture (Durham and London: Duke University Press, 2010), 258.
Bodys Isek Kingelez’s (1948-2015) long running Kimbéville project, circa 1990-2000 (fig. 90), is the perfect example of scale-model city sculptures infused with utopian dreams. As Kingelez himself said of his work, “I created these cities so there would be lasting peace, justice and universal freedom.” The Zairian artist’s wild and brightly coloured sci-fi-esque metropolises are constructed from equal parts recycled materials and optimism.

The work of DAAR, an architectural collective operating out of occupied Palestine, is another example which highlights the aspirational nature of scale-model cities. Their Deparcelization (fig. 91) concept imagines re-imposing the layout of an original Palestinian settlement over urban territory currently controlled by the Israeli military. They describe being met with derision and scepticism by the locals, until they utilised

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71 This work is one of only five model cities identified in: Katharine Harmon and Gayle Clemans, *The Map as Art: Contemporary Artists Explore Cartography*, first ed. (New York: Princeton Architectural Press, 2009).
scale-models to tell their story. “It was only when we began organizing these discussions around architectural models displaying the re-use of the colonies that the possibilities began to become apparent,” they recall. “The discussion then shifted from “if it will happen” to “how it will happen”.”

The members of DAAR are also well aware of the symbolic power of the city. As citizens in occupied territory they know all too well that destroying or conquering a city is an act of aggression that is at least in part psychological. By reclaiming their city, even in fiction, their Deparcelization model city is a powerful act of liberation.

The scale-model city may have utopian leanings, but once ruined it is a particularly potent symbol: it represents thwarted potential, crushed dreams, and the dark side of human ambition. Below, using as examples artworks created as part of this research, in addition to others made by Cheng Dapeng, Charles Simonds, Anselm Kiefer and Peter Root, I will demonstrate how sculptures in the form of ruined model cities are a particularly poignant reminder of the danger we pose, not only to the rest of the natural world, but to ourselves.

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74 DAAR overtly positions architectural projects as a narrative tool, saying, “Architectural proposals are a form of fiction. Their effects could be the opening of the imagination.” Ibid., 27.
75 Ibid., 90.
76 They quote Franz Fanon who said in his 1963 book *Wretched of the Earth*, “To destroy the colonial world means nothing less then demolishing the colonist’s city, burying it deep within the earth or banishing it from the territory.” Ibid., 20.
A tale of several cities

As a citizen of Beijing, Cheng Dapeng understands first hand the human cost of over developing a city and his anxiety over this issue inspired his ruined scale-model, *Wonderful City*, 2011-2012 (figs 92, 93).\(^7^7\) In this ironically titled sculpture the demonic chimeras of Hieronymus Bosch (fig. 119) have been unleashed in a 21\(^{st}\) century metropolis, appetites unchecked.

*Wonderful City* was constructed using a 3D printer. In fact, the miniature buildings themselves are just the structural matrix which is used to support the many toads,\(^7^8\) snakes, giant lizards and multi-limbed syncretic creatures that rampage and wrestle across Cheng Dapeng’s

![Figure 92: Cheng Dapeng, Wonderful City (detail), 2011-2012, resin 3D prints on lightbox, 960 x 200 x 80cm, installed at White Rabbit, Sydney, February 2017. Photo: T. Clement.](image)

\(^7^7\) If Judith Neilson’s White Rabbit collection (the main conduit by which Sydney-siders are exposed to contemporary Chinese art) is anything to go by, the rapid expansion and over-development of cities is an issue that weighs heavily on the minds of many Chinese artists. *Wonderful City*, 2011-2012, was first shown at White Rabbit in the 2013 exhibition, *Smash Palace*, March- August 2013. This iteration of the collection included dozens of works which dealt with themes of over development and/or rapid change in the region. These included, in addition to Cheng Dapeng’s *Wonderful City*, 2011-2012, Zhou Jie’s *CBD*, 2010 in which the artist also expressed her anxiety in the form of a model city. “The city makes me feel oppressed and uncomfortable,” she says, “our cities are growing faster and faster, spreading like infections.” "Artists: Zhou Jie," White Rabbit Contemporary Chinese Art Collection, http://www.whiterabbitcollection.org/artists/zhou-jie. Another artist dealing with the same theme, but in video, was Yang Yongliang. His work was also included in the 2017 iteration, *The Dark Matters*. In my review of this show I wrote, “Yang Yongliang’s landscape is no longer a manifestation of the nature/culture clash. He pictures a world in which this age-old battle is over and the only nature left is the animal known as man.” Tracey Clement, "The Dark Matters," *Art Guide Australia* (2017): 96.

\(^7^8\) Possibly a nod to the money toad or lucky money frog used to attract wealth in Feng Shui.
urban landscape. And the violence of their devastation is conveyed through their fornicating as much as their fighting.

Many of Cheng Dapeng chimeras sport enormous (sometimes multiple) male genitals. Oversized and over-sexed, their erect members are all out of proportion; they dominate both the built environment and less well-endowed creatures in a way that becomes menacing. It seems that the frenzied sex-acts in *Wonderful City* may not be consensual. Instead they are symbolic of the violent rape of the city.

At first this artwork reads like a straightforward nature/culture clash as these hyper-organic forms seem to crush and devour what ruins theorist Georg Simmel called the “upward striving” structures of man. But, Cheng Dapeng’s reptilian creatures are descendants of Godzilla, perhaps the most famous city-smashing reptile in pop culture. And just as the original Godzilla represented not nature, but the dark forces unleashed on Hiroshima and Nagasaki by human nature, so too Cheng Dapeng’s pugilistic...

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80 The original 1954 film (*Godzilla*, dir. Ishiro Honda) overtly refers to nuclear weapons and is an obvious response to the devastation wrought on Japan by the bomb.
chimeras point to the fact that his city is being destroyed by a catastrophe wrought by man.

Cheng Dapeng's *Wonderful City* makes manifest at least three of the seven deadly sins: greed, gluttony and the lust for both conquest and power at any cost.\(^81\) In this artwork these very human attributes become the metaphorical monstrous forces that are literally devouring cities like Sydney and Beijing. Our complicity in the destruction of the city is highlighted by its diminutive scale. To view Cheng Dapeng's ruined model city we must loom over it, like Godzilla, poised to wreak havoc (fig. 93).

![Image: Anselm Kiefer has constructed a ruined landscape at La Ribaute in Barjac, France. Still from 'Over Your Cities Grass Will Grow,' 2010, a film by Sophie Fiennes.]

Sometime around the turn of the 21\(^{st}\) century Anselm Kiefer began constructing teetering cement towers on his property in France (fig. 94).\(^82\) As scale-models go, the German artist’s towers are massive, almost life-sized. And while the footprint of the project is vast in terms of sculpture, there are actually only around a dozen standing structures which overlook the collapsed remains of several more.\(^83\) To a developer, this amount of real estate would barely qualify as a good investment, let alone a suburb worthy of its own postcode.

\(^{81}\) A case could easily be made to also include envy, sloth and pride. Hieronymus Bosch, an artist it seems clear that Cheng Dapeng has been inspired by, also depicted the seven deadly sins in *Table of the Seven Deadly Sins*, 1505-1510 (fig. 120).


\(^{83}\) In terms of this research, this artwork pushes the boundaries of what can be considered a scale-model of a city. Kiefer’s towers are both too large and too few. Each building was created by casting slabs inside shipping containers, and these units are stacked in piles up to seven units high. It is not entirely clear how many structures there are in total. At least 12 towers are visible in a still from ‘Over Your Cities Grass Will Grow,’ 2010, a film by Sophie Fiennes, shot on Kiefer’s property, La Ribaute in Barjac, France.
Nevertheless, Kiefer's decaying towers resemble the ruins of a city made entirely from brutalist modernist apartments piled high. With their rusty spikes of re-bar protruding from striated concrete slabs, they seem like the remains of a failed utopian dream. Placed in the landscape they are compelling and melancholy, as many ruins are, but not especially remarkable. But when they are brought indoors, as they were in 2004 and again in 2007, they undergo an extraordinary transformation. Once inside they are able to tap into the language of architectural scale-models.

Figure 95: Anselm Kiefer, The Seven Heavenly Palaces, 2004, installed at HangarBicocca, Milano. Image courtesy: Milan Museum Guide.

Kiefer first constructed his towers indoors as a permanent installation titled The Seven Heavenly Palaces for the cavernous post-industrial warehouse space of the HangarBicocca in Milan (fig. 95). Removed from the landscape, these enormous concrete towers cease to be a kind of architectural palimpsest: a temporal record of slow, perhaps even gentle, decay and weathering. Clearly they do not belong inside. The artifice of their construction is exposed and it becomes obvious that the destruction of Kiefer's towers was neither caused by nature, nor is it natural. In this interior context it is impossible to avoid the fact that whatever catastrophe they have suffered was man-made, calculated and intentional.

84 This project, which opened 24 September 2004, was curated by Lia Rumma. In 2015, five large paintings were added to the installation. “Anselm Kiefer: The Seven Heavenly Palaces 2004-2015,” Pirelli Hangar Bicocca, http://www.hangarbicocca.org/en/anselm-kiefer/.
In the next iteration of this work, *Sternenfall* (fig. 96), staged at the Grand Palais in Paris, the disjunction between the interior space and Kiefer’s pre-fab model ruins is even more striking. The elegant Grand Palais was built for the Universal Exhibition in 1900. In the soaring light-filled glass and steel atrium of this aspirational space, they evoke potential (as all architectural models do) deliberately, wilfully, thwarted.

In the context of the artist’s lifelong confrontation with the legacy of Nazi Germany, Kiefer’s ravaged towers are both a warning and a mnemonic. His over-sized ruined model city highlights our propensity for violence on a grand scale, our desire to wage war and to annihilate people deemed inferior, *other*, or simply in the way. He is forcing us to remember: to remember what is lost, to remember what we have done, and to acknowledge the horrors we are still capable of.

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85 In his essay on *The Seven Heavenly Palaces*, titled ‘Memory of Oblivion,’ Marco Belpoliti argues that by manufacturing ruins within a culture that has no time for them (as we pulverise the old to make way for the new) Kiefer is making a monument to memory. Yet he also states, “His ruins are an image of the future, not of the past.” And Belpoliti is right on both counts. Marco Belpoliti, “Memory of Oblivion,” in *Anselm Kiefer: Merkaba*, ed. Filomena Moscatelli (Milan: Edizioni Charta, 2006), 27.
American artist Charles Simonds has been making sculptures in the form of ruined scale-model cities since the 1970s (Figs. 97, 98, 99,). And while it is not clear what first caused his miniature metropolises to be abandoned, by placing them outdoors, in interstitial locations in real cities, his ongoing series of *Dwellings* beautifully illustrates the cycles of renewal and decay inherent in all cities, the inevitable fall that awaits all civilisations. They are a subtle warning not to get too comfortable, and a timely reminder to cherish what we currently have.

Despite the mysterious nature of the catalyst that initiated their cycle of decline, it is nature that finishes off Simonds's miniature cities. Left outside, on window ledges, in gaps between bricks on the sides of buildings which themselves are in disrepair, in gutters and crevices in stone walls, his tiny buildings are subjected to wind, heat, snow and rain. Made of clay, sand, and wood, they endure the same elements as their host cities and through their accelerated weathering they highlight the ability of natural forces to reduce and reclaim man-made structures; ashes to ashes, dust to dust.

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86 Simonds has created his artworks in cities all over the world, but because of their status as iconic cities, his *Dwellings* in New York and Paris are perhaps the most effective. His recent book includes images of *Dwellings* in Antwerp, East and West Berlin, New York, Paris, Shanghai and Venice. Charles Simonds, *Dwelling* (Koln: Verlag der Buchhandlung Walther Konig, 2015).
But perhaps the most significant point Simonds makes is also the least obvious. The artist insists that his *Dwellings* are made for a race of “Little People.”\(^87\) Not all of us can muster the childlike wonder (or wilful naiveté) necessary to truly believe in these diminutive people. Nevertheless, his tiny ruined metropolises are a reminder that we already share the city with innumerable small creatures who make their homes, like we do, in the urban environment.

Bees and lizards live in the cracks between bricks, termites beneath floorboards, rats in subterranean conduits, and pigeons under eaves, to name but a few. The crumbling *Dwellings* of Charles Simonds ask us to acknowledge that we are not the sole inhabitants of the city, or indeed the planet. We share our home (although often begrudgingly) with myriad other sentient creatures whose existence is, like ours, precarious and contingent.

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While Simonds, perhaps unwittingly, draws attention to the innumerable animals with whom we cohabit, the aptly named English artist Peter Root has created two miniature cities entirely from potatoes which draw attention to the plants, fungi and bacteria that are also ever present.

Over time, the elaborate structures of Root’s rather byzantine potato metropolises, *Wasteland*, 2009, and *Plot*, 2012, begin to change. Some of his decorative miniature
buildings start to produce green sprouts (fig. 101). Determined to grow, they defy the man-made forms imposed on them. Meanwhile, some potato towers begin to discolour and desiccate. They soften, shrivel and slump as mould and bacteria move into Root’s organic cities (fig. 100).

Figure 101: Some of Root’s decorative miniature buildings start to produce green sprouts. Peter Root, Plot, 2012, 60 kilograms of potatoes, pallets, dimensions variable. Image courtesy: Anti Utopias.

The miniature scale of Root’s potato metropolises\(^{88}\) allows them to demonstrate, at a rapid pace, the persistent and patient strength that allows plants, fungi and less visible microorganisms to reclaim any city.

Weeds, by definition just plants that have the temerity to grow without being invited, are so mundane that they are barely noticed. But take a closer look at the plants taking hold in small gaps in the urban environment. Some of them aren’t soft bodied annuals which will flower then die; they are the seedlings of hardy, fast growing trees poised to transform the metropolis into a forest. Left unchecked, they are the vanguard of an implacable conquering force.\(^ {89}\)

We are familiar with images of ruined ancient cities rising out of lush jungles in South America or Southeast Asia. We tend to think of these verdant swathes as eternal,

\(^{88}\) Root has made several non-ruined miniature cities as well, meticulously crafted from a variety of everyday materials such as staples and soap. See: “Peter Root Artworks,” Saatchi Art, https://www.saatchiart.com/account/artworks/1074.

\(^{89}\) This is the premise of: Alan Weisman, The World without Us (London: Virgin, 2008). But it’s not hypothetical. In a city like Sydney it’s easy to see how quickly this process would take place, ‘weed trees’ are everywhere.
primeval. But it doesn’t take millennia for a forest to infiltrate and obliterate physical evidence of a civilisation; it can happen in mere decades. The speed and efficiency of trees, moss and fungi can be seen clearly in the Ukrainian city of Pripyat.

In 1986, following the catastrophic failure of the Chernobyl nuclear reactor on 26 April, the city of Pripyat was abandoned (figs. 102, 115). This man-made disaster left the built structures intact: the damage that has been done in subsequent years has been achieved by the forces of nature. Some 30 years after the catastrophe, the city has been transformed into a steadily growing forest punctuated by Soviet-bloc era ruins.

Images of the ruins of Pripyat proliferate on the internet. They are a powerful symbol of the ability of nature to reclaim and make new what man has destroyed. If there is room in the intertextual geography of Ballard's novel, *The Drowned World*, for a third real metropolis (and I think there is) then it is post-Chernobyl Pripyat. This city

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90 The swiftness with which nature re-colonises territory is either shocking or comforting, depending on your point of view, but it is not extraordinary. While Ms Sasaki found the swift march of weeds over Hiroshima distressing, the fast and inevitable reclamation of ruined cities is discussed as a symbol of redemptive hope in Chapter Three.


92 They were widely dispersed by news media to mark the 30th anniversary of the disaster in 2016. A Google search on 20 March 2017 using the term “Chernobyl 30 years” yielded 4,370,000 results including stories by *The Telegraph*, *The Daily Mail*, BBC news, and the *Daily Mirror* in the UK: ABC news, *The Australian*, and *The Guardian; The Atlantic, National Geographic, USA Today* and CNN; and many more.
is the key 21st century image of the regenerative power of nature in the real drowned world.

Like Pripyat, Root’s *Wasteland* and *Plot* provide tangible evidence of the strength of plants, moulds and bacteria. As in Cheng Dapeng’s *Wonderful City*, the small scale of Root’s cities helps to emphasise this message. Despite the fact that we are giants towering over his miniature worlds, it is the microscopic inhabitants, invisible but invincible, that hold sway.

Peter Root and Cheng Dapeng both make the most of the tradition of positioning model cities so that the viewer can physically (as well as psychologically) dominate. The two ruined model cities that I have made as primary research in response to *The Drowned World* both deliberately break with this convention in order to make a point.

In *Post-Premonitionism 2*, 2014-2017, the diminutive rectilinear steel structures of an abstract city are positioned at eye height, precariously balanced on salty peaks of vaguely anthropomorphic volume. Instead of looking down on this ruined city we face it head-on (fig. 103). It becomes a kind of a mirror; a twisted reflection which emphasises our complicity in creating a post-apocalyptic future. In *Metropolis Experiment*, 2016-2017, the ruined city itself is constructed from over-engineered steel structures that roughly approximate human dimensions, once again pointing to our own culpability in the catastrophe it foretells.

93 In fact, all of the works discussed here, including Kiefer’s very large models, have made the most of the smaller-than scale of model cities.
I argued in Chapters Two and Three that both Ballard’s submerged metropolis in *The Drowned World* and the ruined model city of *Post-Premonitionism 2* can be read as utopian visions of nature and culture entwined. But these utopias are tinged with a deep sense of loss; in this case the loss of humanity in all our terrible brilliance, represented by the ruined city. Both the city and architectural models are aspirational and *Post-Premonitionism 2*, like all artworks in the form of ruined model cities, relies on these symbols for its emotional impact.

In *Metropolis Experiment* the whole city is a laboratory (figs. 104, 106). But instead of gleaming stainless apparatus in sterile white surrounds, we are presented with rusty steel tripods, like those intended to support beakers, grown monstrously huge. These structures also resemble electricity or telecom transmission towers, but they still support elaborate configurations of scientific glassware. However, the chemical solution used in this experiment (NaCl) has escaped. It has breached its man-made confines, and salt crystals proliferate unchecked (fig. 105). They creep up and over both glass and steel, corroding as they go, and they weave strange organic webs which resemble the intricate structures of some fungi (fig. 108).

*Metropolis Experiment* is clearly a science experiment gone horribly wrong. This ruined model city is a none too subtle nod to the dangers inherent in believing that it is both possible and desirable to control nature. Like *The Drowned World* and *Post-Premonitionism 2*, this ruined city is a critique of the
Enlightenment. But while *Post-Premonitionism* 2 pictures a beautiful and terrible melding, a sublime utopian entwinement that points to the bittersweet inevitability of human extinction, *Metropolis Experiment* is a strident warning.

In *Metropolis Experiment* the methods of science spectacularly fail to reduce the ineffable mysteries of nature to something that can be quantified and tamed. In this way, this sculpture illustrates one of the key arguments made by Horkheimer and Adorno in their *Dialectic of Enlightenment*: that the processes of science are not neutral but an attempt at domination that ultimately must fail. Nature cannot never be fully understood or controlled.⁹⁴

Science doesn't offer any solutions in *Metropolis Experiment*. And this is the point. An easy technological reprieve from our current crisis is not coming.

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⁹⁴ This is essentially a synopsis of their whole first chapter and this thesis is discussed in depth in Chapter Two. Max Horkheimer and Theodor W. Adorno, "The Concept of Enlightenment," in *Dialectic of Enlightenment: Philosophical Fragments*, ed. Gunzelin Schmid Noerr, Cultural Memory in the Present (Stanford University Press, 2002), 1-34.
We need to finally, unequivocally, come to terms with the fact that man is not the centre of all things, and never has been. And we need to adjust our behaviour accordingly.\textsuperscript{95}

What happens when we act as if we are undisputed masters of the universe is plain to see. Witness our two most recent eschatological crises: both the Cold War and climate-change are creations of man. And, as Timothy Morton persuasively argues, while we may not be able to picture the vast, diffuse and networked hyperobjects that drive our ‘end-is-nigh’ anxieties, we can see their effects.\textsuperscript{96} The impact of a nuclear bomb is made very clear in photographs of Hiroshima reduced to rubble. Global warming is caught on film in pictures of New Orleans in the aftermath of Katrina.

But even these powerful images of the metropolis destroyed struggle to depict the enormity of the damage done. For example, an aerial photograph may be able to capture an entire city laid waste, but the distance necessary creates an emotional distance too. Miniaturised in this way, the city is flattened, reduced to pattern: formal elements such as line, shape and colour. It loses much of its emotional impact. Conversely the miniaturisation process of creating sculptures in the form of scale-model ruined cities, such as those described above, distils their effect. Writ small, the overwhelming scale of the catastrophe is intensified: suddenly it is possible to see whole (fig. 106).\textsuperscript{97}

\textsuperscript{95} *Metropolis Experiment* does not offer a specific solution to the current crisis other than a change in attitude. In this artwork, I dare to imagine that it is almost, but not quite, too late to make some changes. Not the global economic restructuring that Klein demands, but small personal changes. After all, the personal is political. It seems clear to me that a drastic reduction in global human population is the only way to reduce the scale of suffering that climate-change will inevitably bring. This is a topic worthy of a lengthy discussion, and there is not room for it here. But it is worth noting that despite being a big issue in the 1970s, for some reason population seems to have slipped off the agenda in recent decades. In the early 1990s, I was a founding member of an all female punk band named Spermicide. Our mandate was to promote the notion of negative population growth. I have done my part by not having children. Recently Donna Haraway has weighed in on this topic (also in a footnote) and hopefully population reduction will return to public discussion soon. Donna Haraway, "Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin," *Environmental Humanities* 6 (2015): 164-65 (note 17).


\textsuperscript{97} Helmut Puff discusses this effect in the context of models of real German cities which were bombed during World War II. He argues that, "As visual discourse, they promise to provide immediate access to events and experiences that seem to defy representation, translating large-scale destruction into an object." Puff, "Ruins as Models: Displaying Destruction in Postwar Germany," 255.
Artworks in the form of scale-model ruined metropolises picture the future already devastated. As manifestations of aspirations crushed, they intensify the forward-facing temporal slippage inherent in all ruins. And the very form of these artworks leaves no room for doubt as to who is to blame for their destruction. Disasters in models of imaginary cities, like model cities themselves, don't just happen. They are a wilful act, a man-made phenomenon.

The ruined model cities discussed above convey post-apocalyptic narratives: they are visual warnings that ask us to consider how actions in the present effect the future. They are cautionary tales. But these miniature ruined cities also tap into a tradition of votive offerings. As Fabrizio Nevola explains in his chapter for *Wounded Cities*, in Renaissance Italy wax and silver models of cities were left at shrines as devotional pleas hoping to prevent the cataclysmic effects of earthquakes, plagues and wars.98 The ruined model cities made as part of this research, and those made by Cheng Dapeng, Charles Simonds, Anselm Kiefer and Peter Root, may trace their lineage to this practice. They are ritual objects invoked to forestall disaster: talismanic gestures tinged with hope.

Alternative endings

The intertextual, temporally fluid geography of The Drowned World is the location of multiple ruined cities. Hiroshima, reduced to rubble in 1945, is a chilling reminder of the terrible power of nuclear weapons, the insidious fear they generated throughout the Cold War era, and the threat they continue to pose. New Orleans in the aftermath of Katrina, inundated by a ferocious storm and incapacitated by failed infrastructure and lack of political will, is a horrific snapshot of post-climate-change reality. And in Pripyat, as the succulent tendrils of vines gently prise apart bricks with a strength and patience that cannot be matched, we are faced with our own helplessness and ontological insignificance. These destroyed metropolises are symbols.

One of the realisations gained from re-reading J.G. Ballard’s novel The Drowned World, and re-interpreting it through making art, is that the ruined city is a powerful image that has withstood the test of time. Ballard’s submerged metropolis was created during the eschatological crisis of the Cold War, but its precedents date back to antiquity, and it is just as relevant today. His fictional post-apocalyptic city, its real counterparts, and the ruined model metropolis artworks discussed in this chapter are memento mori and reminders of the terrible repercussions of the anthropocentric world-view. They are an invitation to look at the present and picture the future.

Figure 107: Tracey Clement, Post-Premonitionism 2 (detail), 2014-2015, salt, rusty steel, cotton, dimensions variable, max height 1.8m. Installed in Mapping The Drowned World at SCA Galleries, 8-31 October 2015. Photo: T. Clement.

And what will the future bring? We are already living through the catastrophe of climate-change; it is far too late for prevention. Is this The End or just one possibility among many? Another understanding gleaned from the novel is that The End always
seems imminent, but often fails to arrive as predicted. Endings aren’t fixed in advance.

The ruined model cities I have made in response to *The Drowned World* offer two alternative endings. With its corrosive crystals boiling over and relentlessly spreading, (fig. 108) *Metropolis Experiment* is far more aggressive than its predecessor. But it may be even more utopian. Beautiful and quiet, *Post-Premonitionism 2* offers redemption through resignation (fig. 107): human extinction is pictured as poignant and inevitable. Loud and brash, *Metropolis Experiment* is nevertheless quietly (very quietly) optimistic: maybe, just maybe, we can change. After all, there is no point in yelling if there is no hope of being heard.

Figure 108: Tracey Clement, *Metropolis Experiment* (detail), 2016-2017, rusty steel, salt, laboratory glass, cotton, dimensions variable, max height 200cm. Photo T. Clement.
Additional images

Hiroshima, Nagasaki and the real drowned world

Figure 109: The ruined Hiroshima Prefecture Industrial Promotion Hall is now called the Atomic Dome. Hiroshima, 1945. Not published in LIFE. Photo: Bernard Hoffman. Image courtesy: The LIFE Picture Collection.
Figure 110: Hiroshima, September, 1945. Not published in LIFE. Photo: J.R. Eyerman. Image courtesy: The LIFE Picture Collection.
Figure 111: Photographer Bernard Hoffman describes the horror of what he has seen in Hiroshima, 3 September 1945. From his notes the picture editor of LIFE magazine. The LIFE Picture Collection.
Figure 112: The 'Little Boy' bomb in the bomb pit, ready to be loaded into the Enola Gay and dropped on Hiroshima, 1945. Image courtesy: Atomic archive.

Figure 113: Nagasaki reduced to rubble. Nagasaki, Japan, September 1945. Not published in LIFE. Photo: Bernard Hoffman. Image courtesy: The LIFE Picture Collection.
Figure 114: Kesennuma, northeast of Fukushima, 2011. Photo: Philippe Lopez.

Figure 115: Trees grow inside a school in Pripyat, 2005. Photo: Gerd Ludwig.
Additional artworks

Figure 116: Leonardo da Vinci, *A Deluge*, c.1517-18, black chalk on paper, 16.1 x 20.7cm. Image courtesy: The Royal Collection.
Figure 117: Woodcut print from the pamphlet titled, ‘A true report of certaine wonderfull overflowings of Waters, now lately in Summerset-shire, Norfolke and other places of England: destroying many thousands of men, women, and children, overthrowing and bearing downe whole townes and villages, and drowning infinite numbers of sheepe and other Cattle.’ Originally printed in 1607 for Edward White. Image courtesy: The Art of the Landscape.
Figure 118: Earthrise, 27 December 1968, Apollo 8. Image Courtesy: NASA.

Figure 119: Hieronymus Bosch, *The Garden of Earthly Delights Triptych*, 1490 – 1500, grisaille, oil on oak panel. Image courtesy: Museo del Prado.
Figure 120: Hieronymus Bosch, *Table of the Seven Deadly Sins*, 1505 – 1510, oil on poplar panel, 119.5 x 139.5cm. Image courtesy: Museo del Prado.
Conclusion: 
At the end, new beginnings

Imagining apocalypse is a utopian impulse; it is the tempting vision of the slate wiped clean. As Rudolphus Teeuwen put it in his essay ‘Ecocriticism, Humanism, Eschatological Jouissance: J.G. Ballard and the Ends of the World:

[S]hould we invite the deluge, and thus reset the world? This line of thought is a version of utopian thinking: it features the world's end, its demise, the eschatological precondition for a newly-conceived end, or purpose, for the world: to become the planet of minerals, vegetation, and animal life forms that it was before human beings evolved. This is a utopian end because it is a sublime, unimaginable vision…¹

But even as Teeuwen seems to imagine a great flood washing humanity away, his question is still hopelessly anthropocentric. Deluges, tsunamis and cyclones do not do our bidding; they do not arrive at an appointed time for our convenience. Cataclysms do not need an invitation. They descend precociously and ferociously.

In The Drowned World, Ballard manages to make waterlogged, fungus strewn interiors seem lush and seductive; a beguiling union of nature and culture. But there is nothing nice about water pouring though your ceiling, running down your walls, dripping through your floor, seeping into your books. It's terrifying, devastating, disastrous.

During the course of this research I personally experienced two floods. Neither was invited. And while the ramifications of these events were minor compared to the devastation experienced by thousands in the wake of major catastrophes such as Hurricane Katrina and Cyclone Debbie, they nonetheless offered an unpleasant taste of what it means to live in the post-climate-change age.

The second of these floods took place on 8 June 2017 in the gallery where my solo exhibition, *Metropolis Experiment*, was installed. Following a sustained burst of very heavy rain, the gallery director alerted me by text saying, “A river ran through your space from upstairs. It was unbelievable!” The irony of an artwork that re-interpreted *The Drowned World* being flooded was not lost on anyone. And no real damage was done. In fact, the uninvited water rushing through the gallery created beautiful eddies in the piles of salt that were scattered across the floor (figs. 105, 121, 122).

The first flood I experienced while conducting this research was far more damaging. On 25 April 2015 a massive hailstorm, accompanied by torrential rain, hit Sydney. The gutters of my home were unable to cope with the sheer volume of rain and ice: water began to pour through my light fixtures and down the walls. I raced around and grabbed buckets, trying to remain calm, but it quickly became obvious that there was simply too much water coming into the room. As I stood there, utterly helpless, the ceiling collapsed and my house flooded. And as you watch water flowing freely through your home, effortlessly breaching the carefully constructed boundaries of your territory without invitation, you are confronted with your woeful inadequacy in the face of such power. There is literally nothing you can do.

The deluge is already here.
This research started with the question: what can we learn about our world by re-reading, re-writing and re-interpreting *The Drowned World* through a contemporary art practice? That the deluge is already here is one of the key realisations this query generates. We are already living in the real drowned world, the post-climate-change age. And to acknowledge this means coming to terms with our own ontological insignificance: man is not the centre of all things. We are not superior to the rest of nature. Our survival is neither imperative, nor guaranteed. And, as demonstrated in this project, telling post-apocalyptic stories, such as *The Drowned World* and the artworks made in response to this novel as part of this research, is a reaction to an eschatological threat that is more than adequate. It is a valid response that generates knowledge in ways that factual accounts cannot access.

Post-apocalyptic narratives, both textual and visual, have a distinct facility for inviting us to picture the present as the past of a devastated future. And these fictional tales, particularly those that utilise the ineffable language of art, may be superior to facts in highlighting our culpability in the crises we face. For, while cataclysms are certainly not at our beck and call, maybe we did issue an invitation after all. Like the Cold War before it, climate-change is a man-made eschatological crisis. And if we survive this one, no doubt the next one will be too. And there is likely to be another one. Yet another lesson (perhaps the most important lesson) learned through careful examination of Ballard’s novel is that eschatological crises are more cyclical than terminal.

The End isn't always the end.

And so it is here. The new knowledge generated in *Mapping The Drowned World* is not an end but a beginning.

The entire *Mapping The Drowned World* project, including the artworks made as part of this research, is a new addition to the lexicon of works which respond to the eschatological crises of their times.

This research has generated two new analyses of Ballard’s novel: firstly as a critique of the Enlightenment equal in merit to Horkheimer and Adorno’s effort, and secondly as a radical post-human utopia. I also highlight the key symbolic role of the ruined city in *The Drowned World* and point out that its current intertextual landscape is the location of at least three other real devastated metropolises: Hiroshima, New Orleans
and Pripyat. Other Ballard scholars can build on or refute these arguments.

The new artworks created as part of this project join the small number of extant works that respond directly to Ballard’s novel. They also contribute to the field of critical cartography, and the analyses of the sculptural works in the form of ruined model cities in particular address a gap in the field that remains wide enough to warrant further investigation. I have only just begun to explore the potential of this type of sculpture. I intend to make many more miniature ruined metropolises and am keen to delve deeper into this area of research, with the view to publishing on both my work and the work of others.

The original interstitial chapter I wrote as part of the methodology of re-writing The Drowned World has opened up another possibility for ongoing work: the recuperation of the marginalised female characters in otherwise fascinating novels.

And, finally, the unique research methodology developed for this project, a three-pronged approach of re-reading, re-writing and re-interpreting a novel through the lens of art, has proved to be truly synergistic, much more than the sum of its parts. In ways that were largely unanticipated, the materiality of the artworks (particularly the capricious elemental reactions of salt, steel, air and water) influenced my thinking,

Figure 122: The uninvited water rushing through the gallery created beautiful eddies in the piles of salt that were scattered across the floor. Tracey Clement, Metropolis Experiment (detail), 2016-2017, rusty steel, salt, laboratory glass, cotton, dimensions variable, max height 200cm. Installed at AirSpace Projects, 2-17 June 2017 (photo taken post-flood). Photo T. Clement.
and ideas which found their genesis in reading and re-reading, writing and re-writing, were in turn worked back into the artworks in what became an extraordinarily fruitful generative feedback loop. This process offers untold new starting points.

We have reached the end of *Mapping The Drowned World*, but this end is just the beginning.

Figure 123: Tracey Clement with *Post-Premonitionism 2* as a work in progress, 2014. Photo: Isobel Markus Dunworth.
Bibliography
Books, journals and websites with authors


— — —. "The Biggest Chill." *Natural History* 96, no. 10 (October 1987): 74-82.


Latour, Bruno. "Do You Believe in Reality." Chap. 1 In *Pandora's Hope: Essays on the Reality of Science*.


**Websites without authors**


———. "28 October 1962: World Relief as Cuban Missile Crisis Ends." BBC News,


"Hieronymus Bosch: Table of the Seven Deadly Sins." Museo del Prado, https://www.museodelprado.es/en/the-collection/art-work/table-of-the-seven-deadly-sins/3fc0a84ede77d-4217-b960-8a34b8873b70.


Appendices: A, B, C
Appendix A: Timeline for The Drowned World

The timeframe in which the cataclysm unfolds in The Drowned World is not made very clear in the novel. I’ve extracted the few facts Ballard offers and organised them into a timeline. Significantly, the disaster takes place over the course of just 70 years, roughly a human lifespan.

The page numbers for each fact are in parentheses. Note that no information on Beatrice is supplied. How she survived is the topic of the interstitial chapter I wrote for this research, Chapter 3.5. All data extracted from:


| 70 years ago | Violent solar storms start and global temperatures start to rise. (20) | Over the next 20 years: All tropical areas become uninhabitable. (20) |
| 65 years ago | Bodkin is born in London. (19) | All temperate areas become uninhabitable. (20) |
| 60 years ago | During Bodkin’s childhood the cities were “beleaguered citadels”. (19) | UN led colonisation of Antarctic and Arctic regions begins. (20) |
| 59 years ago | Bodkin’s family leave London. (69) | Plants grow and mutate. (20) |
| 50 years ago | Waves of refugees begin to move North. (21) | Polar ice caps melt and oceans rise, reshaping world geography.(20-21) |
| 45 years ago | A steady decline in mammalian fertility is noted. (21) Human fertility is on the wane. (22) | |
| 40 years ago | Kerans is born at Camp Byrd in Greenland, a city of 10,000. (21) Current world population is less than 5 million. (21) Paris Vogue is still being published. (24) | |
| 20 years ago | Last of the remaining fortified cities fall. (21) | |
| 10 years ago | Last of the previous occupants leave the Ritz hotel. (10) Kerans joins the biological survey team in his early 30s. (19) | |
| 3 years ago | Kerans has been working with Colonel Riggs for more than 3 years. (11) | |
| 6 months ago | Kerans et al arrive at the London lagoon. (9) | |
| The Present | Temperature is 180F at the equator. (14) Rain belts continuous to the 20th parallel. (14) Noon high of 130F in drowned London. (75) | |
Appendix B:
Mapping The Drowned World artist interviews

Each of the artists who participated in Mapping The Drowned World, the group show initiated and coordinated as primary research for this project, also agreed to be interviewed. As noted in Chapter Two, Kate Mitchell did not make new work for the project and therefore was not interviewed.

Complete transcripts of the interviews conducted with the other artists (Roy Ananda, Jon Cattapan and Janet Tavener and Gosia Wlodarczak) follow alphabetically.

Roy Ananda

Tracey Clement (TC) interviewed Roy Ananda (RA) at SCA, 7 October 2015. The interview took place immediately following Ananda’s lecture on campus. They discussed his interpretations of J.G. Ballard’s novel, The Drowned World, and the work he made for the exhibition Mapping the Drowned World (M-TDW), held 8-31 October 2015, at SCA Galleries.

TC: Was this the first time you read The Drowned World?
RA: Yes.

TC: So, what was your initial reaction to the novel?
RA: In terms of my response through the work or more generally?

TC: Just in general. Did you think this was great, this is crap, this is about something?
RA: I certainly didn't think it was crap. I think it was wonderful actually. As I kind of mentioned in my talk, I’m really drawn to well realised fictional worlds that have that sense of verisimilitude and plausibility. And even though one could debate about: well, would melting ice caps really result in all that water being displaced, he sold it to us so well in terms of the description of the world itself. But also the impact on the human psyche in that regression, if it is a regression, and yeah that's what struck me.

I think I had read that illustrated edition with watercolours by Dick French [1981], once I read the copy you sent I actually ordered that online, as I had a memory of it. Illustrating that world in a pictorial sense had already been done really well and it's not particularly how I work. So I was immediately casting around for: what is here in terms of generating a work outcome...

TC: The premise of my thesis is that this book is interesting as a kind of bridge between the post-apocalyptic fears of the Cold War and the present, because it does seem to predict climate change. I think it makes this nice bridge, and highlights the fact that the world is always about to end.

But I was looking for artists who have responded to it, and I found myself not attracted to those illustration type responses at all. And it really makes you think, what is difference between illustration or interpretation or inspiration? How do you
decide which is which?

How would you describe your response? ‘Translation’ or ‘interpretation’ are options, or ‘inspired by,’ but if that doesn’t seem like the right phrase what would you choose?

RA: I think, in terms of those options, it would be somewhere between interpretation and inspired by. I would characterise a lot of the works I just showed in my talk as a kind of translation, for instance the Star Wars work or some of the Warner Brothers cartoons works. I see that as a translation. I see that as very much taking it from that filmic or two-dimensional state and pulling it out into three dimensions: the material considerations and so on.

In terms of the work that I have done for the show [M-TDW], the closest thing in terms of an illustration is probably the two clocks because they are actually mentioned in Bodkin’s experiments. The turntable work with the compass I was sort of um-ing and ah-ing about until I found the faux-crocodile hide record player, and then I thought of course, this is what Strangman would use to play his 45s!

TC: But to me, those works all highlight the futility of the scientific method under those circumstances. Is that what you are aiming at?

RA: Yes, very much so. One of the very first senses I had from the book is that there is this pull on humanity; the rational thing to do was to go north and go back to Greenland. But the ontology of this new world was acting on these people, like Hardman and Kerans, and pulling them south. So this sense of human beings being pushed and pulled by these very elemental forces was really strong. So what are the visual approximations of that? We try and measure those things with instruments but they [the instruments] are ultimately quite futile.

TC: It's like trying to measure the metaphysical with the physical.

RA: Yeah, something like that.

TC: So, just spelling it out from me then, what do you think the major themes of the novel are? What were the themes that you identified?

RA: I guess how contingent the human psyche and motivations are on context. That we are quite malleable in that sense. Before I had read it I had made the assumption that it's a kind of ecological warning, because we think about climate change in the contemporary context.

TC: Yeah, it is very tempting to read it that way. But that was not his intention at all.

RA: Yeah, there were solar flares and that was kind of interesting, so it was more interesting in that sense that it was not this kind of didactic: look you have fucked up the whole planet blah, blah, blah…

TC: Ballard couldn't give a toss about that! He's like, let it burn!

RA: He's like, so this thing happened, so what would the human response be? And it's this wildly hallucinogenic thing that happens from it.

TC: That was absolutely his motivation. He talks about the fact that he's not interested in the end of the world at all, or in providing a kind of warning. He's interested in putting his characters under pressure and seeing how they would behave, which usually turns out to be quite badly.
So is there anything else that really struck you about the novel: the imagery or the thematics?

**RA:** My favourite image is probably the draining of Leicester Square and Beatrice’s repulsion. She’s like, it’s a city from hell, I can’t believe people live like this! Just that within a human lifetime your sense of what is normal and what is a liveable human environment can be inverted so dramatically.

**TC:** That is interesting. Because I have looked at the book so carefully, almost forensically, you realise that there are very few actual facts in the book. There are only two or three pages where the whole business with the solar flares is actually explained. I’ve pieced together a time-line of what happened and how long it took, but you have to really piece it together. It’s not spelt out very carefully. But it all took place over about 70 years, which is roughly a human lifespan. So I found that quite interesting. It doesn’t take millennia for everything to go pear-shaped.

And also there is not much mention of specific location either. You picked up on Leicester Square, but that’s about it. You don’t find out that it is London until page 69,¹ which is like halfway through the book. So it really doesn’t matter where it is.

**RA:** Yeah, the only other landmark is the Ritz, isn’t it?

**TC:** There is the Ritz Hotel and then there is the planetarium. I actually looked at a map of London trying to figure out where the planetarium might be that you could walk to.

It’s interesting to me that you use the word contingent because that is a word that Jon Cattapan kept coming back to when I interviewed him about the themes of the novel.

I guess, bearing in mind that was written 50 odd years ago during the Cold War, do you think that the themes Ballard has raised are still relevant now?

**RA:** Certainly. I think that, again, that malleability of the human psyche is still really pertinent.

**TC:** Let’s talk a little bit more about your response to the book through your work. I remember that you sent me two things that I thought were really interesting: you had written a brief for yourself as if you were a student, which I thought was a great approach, and you sent me a list of things that you might make. Walk me through those again and tell me why you settled on the work that you did make, and what were you trying to achieve through those works?

**RA:** I’m just trying to think what I had on the cards.

**TC:** There was one that was going to be an actual globe…

**RA:** The inverted globe, that’s right. One of the things I started to play around in the early… I can’t remember what it’s called, but there is a particular kind of projection of the globe where the globe is flayed into these almond slivers…

**TC:** It’s called an interrupted projection.

**RA:** OK. I had printed out one of those and done it into a version whereby the globe became a concave thing rather than a convex thing. And then it became a potential vessel that could be perhaps filled.

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TC: And was that responding to a particular image or theme from the book?

RA: I think one of the reasons that I rejected it was I think you could go down a very literal path of: here is a world you can fill with water. And I thought that was perhaps a little bit clunky of a response to just the title *The Drowned World*.

TC: [laughing] Yeah, I was really surprised that no one showed up with just a globe in a bucket!

RA: [laughs] And one silly idea I thought of was to do a re-staging of the Jeff Koons work with the three basketballs and the tank, except with globes of the world.

I suppose in that inversion of the globe thing it does sort of speak to some of those ideas that we talked about before where there is this kind of funny… you think about the north and south poles, but there is a suggestion in the book that that is shifting and the Equator is the polar extremity of the world now. So I guess that fundamental inversion or deforming of the planet that the concave globe would have done may have spoken to that.

Something I am quite interested in, in terms of fan practices, when people respond to science fiction, fantasy or horror it is very popular among fans to make replica props of things from fictional worlds. So there is a whole industry of making what are called “feelies.” So when you buy a video game you might get these objects in it that are like real things from that world. So you get the Batman game and you get one of Batman’s ninja star things. So that was an approach, it was something that I do to an extent in my recreational life in playing table-top games.

When I am running a horror game for my gaming group I might make some props, like you might get a page out of an occult book or something like that. So an approach I definitely thought about was to make quite direct literal objects.

So the Bodkin clocks, I would have made that in a much more faithful way as it was described in the book. Perhaps even have gotten records pressed up that were, like the heartbeat, like Hardman’s recording of his own heartbeat or something like that. But again, they felt like verging on illustration and very much in that world of like, you need to know about the book in order to get these things. And that is definitely something I am mindful of, of not just making in-jokes for other fans of the fiction.

TC: I think you successfully achieved that. I have had a number of people walk through already and look at the compass on the record player and laugh, because they get how pointless it is: if it’s spinning around you can’t find any direction! And they haven’t read the book, or at least one of them hasn’t, I know because they told me. So it’s obviously working.

But as I said before, I interpret your body of work as speaking to the futility of science in the face of the vast changes that everyone was going through, which to me was quite a strong theme of the novel. Was that what you wanted people to pick up on?

RA: Yeah, very much so.

TC: And is that a theme that you think speaks to us today, or that you personally buy into? Or was it just quite strong in the book?

RA: It is something that is quite strong in the book. But I do have a fondness for this kind of found object-based sculpture that kind of plays around with functionality in a
subversive way. Such as the Man Ray’s iron with the nails welded to it [[Cadeau], 1921], or Mona Hatoum’s rubber crutches [Untitled (Crutches), 1991–2001]; there is a perverse humour in making a functional object useless. And when it's done in a kind of poetic way with a deft hand, I find those works really satisfying.

And, I suppose the enjoyable thing about this show is they are not the kind of works I would probably make off my own bat. But having the brief, such as it was, for the show kind of gives you the licence to… I mean those works are still very me, but I think it is nice, I mean when you are at art school you are always working with briefs but then you are an artist… And it's nice to have some parameters that are not self-imposed.

TC: I guess what I'm getting at though is the notion that… I mean I wouldn't go so far as to say science is futile, but part of my world view is that the universe is essentially unknowable. I mean, how many times have we thought we knew everything only to go: oh, the world isn't flat, we made a mistake, etc. Scientists always think they have all the answers and then they always figure out that they were wrong all along. So I'm very sceptical about the notion that we can know everything.

So when I read the book I interpret it as reinforcing this world view that I have that the scientific method is just not working in the face of the overpowering will of nature. It's almost that Romantic notion of the terror and beauty of the sublime. Is that something that gels with you?

RA: Yeah, I think so. I mean I suppose I am pretty sceptical about that kind of stuff. One of my favourite authors of fictional worlds is the HP Lovecraft stories and that is completely nihilistic. I mean humanity is insignificant, blah, blah, blah. But at the same time his worldview has given rise to these wonderful imaginative responses. I was listening to a podcast and there was a lovely quote about if you talk about meaningless universes in fiction Lovecraft’s is a hell of a lot more fun than Beckett's, for instance.

So, I don't know, this might be veering away, but I was doing a short course in Western philosophy and my partner and I both went and it was really interesting: on the topic existentialism I was: all of this is great the world is meaningless blah, blah, blah, and she came out of it white is a sheet. She kind of had this Christian upbringing, which she doesn't subscribe to anymore, but this notion of a meaningless world was kind of confronting. It's not like she'd never thought about it before, but having it laid out in that way... Sorry I'm getting off topic, but to answer your question, yes I do have a scepticism. I think the universe is quite unknowable, but science as a pragmatic thing is quite useful. I mean because of that I don't have polio.

TC: Well, exactly. There is no doubt that some of it is handy!

We talked a little bit before about the difference between translation and illustration. And you were quite keen not to just do an illustration, which I think is the right approach. But what is the benefit of working that way, instead of trying to do an illustration?

RA: I guess part of it is to do with the idea of accessibility for people that don't know the text. I think that is probably the primary one. I think there is a discipline called illustration that is a wonderful thing and there are lots of illustrators that I love, but I
think its function is a bit different to what I'm doing in visual arts, if you can make that distinction.

I mean, I love Alan Lee's illustrations for *Lord of the Rings*, I think they are fabulous. But I don't think about them in the same breath as Rebecca Horn's sculptures, I mean, it's a different discipline.

**TC:** Well it comes back to that tricky ‘what is art?’ question. I mean art has an ineffable quality, doesn't it.

**RA:** Yeah, but I think the big one [in the context of making work for M-TDW] is that degree to which it is tied and bound up in the viewer's knowledge of the text or not. So I'm hoping, as you have just alluded to, that people who aren't familiar with the text can find an entry way into the works in this show.

**TC:** I agree. I think successful art stands alone, regardless of any wall text. I'm a big fan of titles, I think that is enough of a clue.

In your lecture just now, you touched very briefly on the difference between drawing and sculpture. And it seemed to me that what you were trying to say is perhaps that sculpture brings something into the real world. There is something about that three dimensional aspect of sculpture, the thing-ness of sculpture. But of course a drawing is also a thing, even a three dimensional thing, albeit a very flat one.

But I think there is something different about sculpture because it inhabits real space, it takes up space and has that presence. Is that what draws you to it?

**RA:** Yeah, I suppose so. When I started as an art student I chose the school that I did because it had such a strong drawing influence to it. And that's where my interests were at the time. And then being exposed to sculpture, I suddenly felt: oh, I actually think much better in three dimensions than I do in two.

**TC:** I suppose in terms of responding to a text, I guess if you bring something into three dimensional form it is less likely to be that illustrative thing.

**RA:** Yeah, unless you did something like a diorama…

**TC:** I'm a big fan of dioramas!

**RA:** Me too, but it is not something I would necessarily use in a work. I suppose, when we look at drawing we are putting a certain hat on. We are going: right, I am accepting certain agreed upon visual conventions, that line on the page I know is a deposit of graphite on paper, but I know that this is an agreed-upon code that we all share.

It is about the fact that a sculpture is present in the world with you, whereas a pictorial representation has got that buffer of that kind of language, I guess.

**TC:** I have described it in the past that sculpture is almost like a kind of magic where you take an idea and you bring it into reality. Which you have articulated quite well, which drawing doesn't do: it's a vision of the vision, not the thing itself. You can draw a monster, but it is still just a picture of a monster. But with a papier-mâché monster or a cos-play fluffy monster, the monster is in the room now in a different way! Which is what I think makes sculpture so nifty.

But now you are the head of drawing, so you can't say that any more! [laughs]
I first came across your work at a symposium on art and science fiction. And I was looking for people who have worked with fiction before, so I was thrilled to come across your work. So can you talk a bit more about how you have worked with books? Why did you decide to use a book as a starting point, and what sort of works have you made?

RA: A lot of works I have made are from filmic sources, like science fiction films or cartoons. In terms of working from books it hasn't been as frequent. I have done quite a big body of work around HP Lovecraft's fiction.

TC: Again, the overarching question which I have been wrestling with, for which I don't yet have an answer, is what is the relationship between visual art and fiction? How do you view the relationship?

RA: Ummm…

TC: Do you think there is a relationship?

RA: I think there is. Even when I haven't dealt explicitly with a book, I think this whole kind of world building in speculative fiction which creates a plausible world that has verisimilitude, the internal logic that they can create for a world, I think it's really interesting. Even when I have made works that have been ostensibly much more formalist or process based, where there aren't imagery and recognisable tropes and pictorial kind of stuff, I have very much had in mind the Star Wars universe, Isaac Asimov's *Foundation* or robot universe, William Gibson's cyberpunk universe, and the way that those worlds are so satisfying because they are so well conceived and they have this kind of logic that runs through them. I've always been interested in finding what the visual analogue of that is.

So you know, works that have played more on perhaps conventions of model making, that is playing on that childlike making of models but trying to bring it into a more grown-up lens, that's like: yes I'm engaging in play that is a step up from making cubbies in a way, but I'm trying to bring with that, something literary. Not literature as such, but using that as a benchmark for a world that is a complete invention but that has some level of plausibility. I'm not expressing that really well.

For instance, in terms of working from the Lovecraft texts, something I really enjoy there is that he is always going on about the indescribable: weird perversions of geometry. And that's really interesting, well how do I make something like that? Because I can't bend the laws of space and time. So you have to find these kind of analogues for that, which often might be a kind of clunky means, but there is a kind of pleasure in that. It opens up an imaginative space for these impossible things.

It would be like trying to make one of Escher's impossible spaces. Which people do try to do. But they always fall a bit flat.

TC: I used to love Escher…

I am arguing that there is a relationship between art and fiction. And basically the conclusion I am coming to is pretty basic, it's that both of them are a way of making sense of the world. And it is about the indescribable. That is what I argue, that is what art can do: describe the indescribable by coming at it sideways. Because, of course, you can't describe the indescribable because it is indescribable. But you can create something that is affective, affective with an A. So that it evokes something that you can't describe with words.
RA: Yeah, how the visual arts can be a kind of analogue of that, I think is where it is really interesting. If I try to talk about how large Star Wars looms in my imagination. I can talk about it to a certain point, and I can talk about it effusively and use lots of adjectives. Or I can say the first time I saw that big star-ship fly over on the big screen my hairs stood on end. I can talk about these physical sensations. But it doesn't really get at what it is like to be so infatuated with a work of the imagination.

But by making something out of thousands of pieces of timber and tens of thousands of tech-screws [Slow Crawl Into Infinity, 2014], that describes my love of that thing better than words ever could. I guess.

TC: The obsessiveness itself feeds into the work. Which is something I try to channel in my work. Because it is all pretty obsessive. It's not just about being obsessive for the sake of it, it's about the conceptual resonance of that obsession, or the painstaking labour that it takes….

I haven't read the HP Lovecraft books, but with the Ballard novel I have wrestled with definitions, which you alluded to: speculative fiction versus science fiction etc. But whatever else it is it definitely is post–apocalyptic fiction. Have you worked with any post-apocalyptic fiction before?

RA: Umm. Yes little bits, so for instance with some of the Lovecraft inspired stuff, while he doesn't ever set any of his stories in a post-apocalyptic future he does allude to what the world might be like when the great old ones or these things before mankind take back the planet.

TC: So there is a sense of a looming apocalypse…

RA: Yeah. So I have kind of played on that to a certain extent.

TC: When was he writing? The twenties?

RA: The twenties and thirties. [Lovecraft’s story ‘The Call of Cthulhu’ was first published in 1928.]

TC: I wonder what prompted that vision? A lot of post-apocalyptic fiction was driven by the Cold War, the bulk of the genre, as we know it. But that is very much earlier, but I guess post World War I, I wonder if that its what was driving it?

RA: Think that's a big part of that. He was also writing at a time when things like quantum physics were starting to enter the popular imagination. So the idea that the universe might be fundamentally different to how we might have thought of it might be a pretty big blow to a genteel fellow from middle-class New England [laughs]. If you already have this kind of atheistic, nihilistic tendency it probably feeds your imagination.

TC: And is that something that you are particularly drawn to? Or was there other things about his texts that pulled you in?

RA: Yeah. It's an interesting one, I often wonder about what is my motivation for inhabiting the different fictional worlds that I do. I can sort of say more rationally why I like Star Wars: because it is heroic, escapist blah, blah, blah, entertaining…

TC: It's pretty straightforward good versus evil.

RA: exactly. There is a comfort and the simplicity in that and it taps into, you know, the archetypal myths that we seem to be hardwired to like and what-not. And I know
why I like playing Dungeons & Dragons: because I can be this super-powered character that I can't be in real life. It's a power fantasy or whatever. But why do I like horror films? Why do I like HP Lovecraft? Why do I want to spend time in this bleak universe? And I don't really know.

But the thing I like about Lovecraft is that he is so down on humanity, and we're insignificant and our lives don't mean anything blah, blah, blah, but his stories are so imaginative that it's like: well, that is testament to the redemptive power of the imagination in a way. So there is this lovely dichotomy there.

TC: And the promise of redemption is actually the key promise of the apocalypse. That's what it's actually all about. The apocalypse isn't about the end of the world, it's about the few being saved and the promise of redemption.

[off topic discussion of horror films ensues…]

TC: The only other thing I wanted to touch on is, you alluded earlier to gaming, which is something I know nothing about. But that is a whole world building exercise in itself. So that must really feed into your practice?

RA: Definitely. It's something I sort of came back to later in life. I played dungeons & Dragons a lot when I was a young teenager, actually I was about 10. And I really feel like spending all that time inhabiting and designing imaginary spaces, like drawing maps and creating dungeons, has really fed into what I do now.

TC: I think it probably does. And it must feed into the way that you would read a book like The Drowned World?

RA: Possibly. Yeah, like what would this be like as a game?

TC: Do you think like that?

RA: Sometimes… The main game we play is Dungeons & Dragons, basically it's a storytelling game, so you have a character which is defined by statistics on the page.

TC: So it's a narrative?

RA: Yeah, totally.

TC: I think that's really interesting because it is the narrative link between art and fiction that I'm interested in. But gaming is an area that I don't know anything about. But actually that is what it is doing, isn't it? It's another form of storytelling.

As humans we have a propensity for storytelling, and we like to hear a story. I personally like a bit of a story with my art…

Bibliography

Jon Cattapan


JC: [re *The City Submerged* series] It's an evolving archive that goes all the way back to 1991², when I did the first one.

In New York, I was working with these large aqueous fields with limited narrative detail, and they kept getting more and more minimal until there was no imagery and they basically were just these fields of watery blues. And then I started putting them together into these arrangements. And then out of that images started to pop back in over the top. Some of them developed these skins which led to the cityscapes. That's from a methodological point of view; that's what happened.

And all the while that I was making them Ballard was a kind of present sensibility in the work.

TC: Do you remember when you first read *The Drowned World*. Was it a long time ago?

JC: It was in 1989.

TC: How are you able to remember that so precisely?

JC: Well, it was a fairly influential book in my life. It seemed to me, even at the time, that it was a very prescient book, the way that it was talking about this kind of warmed up world: the tides had risen, everything had been flooded and people lived in amongst that. By the 1980s, there was already ecological consternation. And at that time, right through the eighties and the very late seventies, people had already begun to talk about the depletion of ozone and what that would do. The narrative has become a little more developed now around that idea of what people call global warming, but I remember really putting that together with Ballard at a certain point. And it always takes me back to *The Drowned World*.

So why I remember it so clearly was because 1989 was the year I had a couple of breakthrough shows which were early versions of the idea of using the city as this kind of fluid under-painting with bits of actual architecture from Melbourne over the top. I'm thinking of paintings like *Name and Address* [1988]³, these paintings are in the book here, [*Jon Cattapan: Possible Histories*] by the way. And also the picture called *Documentary: Melbourne as Rome* [1989]⁴, so actual architecture on this very fluid field, so the architecture looks like it's floating. So that all came back to this idea, in my mind of a kind of interest in this book, *The Drowned World*. It was very, very influential.

TC: Well, it changed my world view the minute I read it. I think it is incredible, obviously, I wouldn't dedicate three years of my life to it otherwise. It seems to me that part of what makes it so startling is the city is a symbol of civilisation failed. Did you read it this way?

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³ Ibid., 86, 89.
⁴ Ibid., 94-95.
JC: Yes. In the early works in particular I tended to take that kind of slightly dystopian view of the city. Ballard’s book *The Drowned World* is post-apocalyptic, but I wasn’t necessarily interested in a post-apocalyptic representation. I didn’t want my paintings to be sci-fi, I wanted them to be of the here and now. But it was the dystopian element of the city that interested me in the early phase of that work. Now all of those works are much more narrative than the ones that started to happen from about 1993-1994 onwards, where there are these skins of information, like these two here [points to images in the book]. The idea of the city lights being like a floating sort of mechanism of data or electronic markings if you like, that overtook the dystopian. So in a way it went from a kind of dystopian view of drug deaths in St Kilda, as an example, to these works which I see as being almost celebratory of the city. So there are both things in these later works.

TC: So going back to your initial reaction in 1989, when you associated it with an ecological crisis, one of the things I’ve been trying to do throughout my research is trying to pinpoint at what point did climate change really take hold of the public consciousness? I don’t think it was that early, I think you must have been a bit of an early adopter there. At the time did you think it was about climate change? It wasn’t climate change then, it was global warming…

JC: Not climate change, but that whole thing of the ozone layer, people had started talking about that, you know. I mean obviously, I am a child of the sixties who grew up on a beach effectively, without sunscreen. And it was noticeable that people were starting to have concerns about those sorts of things: that the depletion of the ozone meant that there was a lot more ultraviolet light and so on. So it wasn't a reading of the time as being an ecological disaster like it is now. The narrative has really unfolded in a much more enhanced way. We know a lot more now.

TC: Yeah we’ve tipped into it now, except for the extreme naysayers. Everyone knows it's happening. The public consciousness has, I believe, excepted it.

JC: I think also the science itself has proven that there is actual change driven by human beings and their ways in the world which maybe we didn't quite know as much about measuring, or maybe we were looking at different types of measurements. But once you see big tracts of ice melting...

TC: When you first read the book, do you remember what themes you identified in it? What you thought were the themes of the novel?

JC: For me, the word that I associate with *The Drowned World*, and this is going to sound funny because it is so obvious, but it's a word that I use all the time, is that everything in that world, the psychology of the people, the world itself, the way of negotiating the world, everything was really fluid. And everything was contingent on things that we take for granted being available, like fuel being available. So it was an interesting, a really interesting marker when you think that that book was written in 59?

TC: 1962.

JC: 62. So it's a pretty early marker of things to come, but also Tracey, when you look at films like Mad Max for example, which was a late seventies film, you can see some of those themes. They are played out in a slightly different way, but it's a post-apocalyptic world: fuel is very valuable, it’s contingent on what's available. And things that are available are very makeshift.
TC: Well, also in any post-apocalyptic scenario the social structures are under extreme pressure. Which you see in The Drowned World or in Mad Max. They are, in your word, fluid. The boundaries of how you are meant to behave socially become quite fluid as well.

JC: That's exactly what I meant. Ballard is very good, I think, at depicting that, it's very insightful.

TC: Yes, his characters aren't entirely well-balanced, are they?

JC: No. That is common in a lot of his books of course. The characters have extreme sort of attitudes. But there is this funny kind of English politeness about the way they are written, I just really respond to that. There is a kind of reserve there, a natural reserve about how it is delivered and I think that that makes it all the more powerful. And possibly it has given it legs in a way that we can look back on a story like that and just enjoy it in an almost nostalgic way, whilst understanding that there is a prescience to the story that is being told. And that I think is a very important attribute to have in an artwork, and I think that it is in The Drowned World.

TC: So do you think that we look at it with a certain nostalgia, or do you think that the themes that it raises still have relevance today?

JC: Both. The way of its telling, feels to me like it's being told through the eyes of someone who comes out of the 1950s. The attitudes are really 1950s attitudes in a way. But there is enough foretelling that goes on in the book to make it still very relevant. I reckon a lot of people would really understand straight away. You'd think if young people got a hold of The Drowned World now they'd get it straight away.

TC: Well this is why I find it interesting. Because in a way it's quite clear that it's coming out of that kind of Cold War anxiety: 'the end of the world is nigh.' But it also seems so clearly to predict our current crisis!

JC: Well, isn't it interesting, that here we are, so it was written in 1962, 50 odd years later two people on the other side of the world are discussing the ramifications of that book through an entirely different art form…

TC: Well, that is what I am interested in because it absolutely changed my world view. And unlike you, I cannot pinpoint the year I read it, but it may have been around 1989. I was definitely in my early twenties or late teens. And I've just never looked at the world the same since. I mean to me, it was this very powerful lesson that nature cannot be controlled. It shaped my world view. And I think that's what books can do, and I also think that art can do too. Which is why I'm really interested in the intersection between the two of them.

JC: Well, I think also, the fact that it is regarded as science fiction, but in fact it is more like this kind of sociological kind of essay…

TC: Well, Ballard himself says that his key interest isn't in the end of the world, it's in psychology and he likes to put its characters in difficult situations to see what they will do. And what they do is generally behave quite poorly.

JC: I can just see him saying that, that's a very English thing to say in a way.

TC: So, when you made your works that were influenced by The Drowned World, were you consciously responding to the novel, or was it more instinctive than that?
JC: It wasn't entirely instinctive. The novel had quite a deep effect, but I didn't want to
illustrate the novel, if you know what I mean. I'm not that sort of artist. I'm not
interested in taking someone else's concept and seeing what I can do with it. What I
prefer to do is let ideas kind of wash over me.

And I'm particularly interested in fiction. So rather than getting too bound up in
theoretical texts, which a number of my colleagues were probably more passionate
about that part of their reading than I was, I would find a lot of interesting parallels in
certain types of fiction. And with Ballard, as soon as I read The Drowned World I
thought there is an empathy here that I can really feel. I can sense it. I am interested
in very similar things. He has articulated it really beautifully and I am going to try and
paint it out. It's not like I was going to try and paint out the exact things, but that
generally dystopian view, in those earlier paintings from the late eighties, that's what
they were about.

TC: If you had to choose a word to describe the relationship between the fiction and
the artwork what would it be? The ones I have been wrestling with are ‘translation’ or
‘interpretation’ or inspired by.’ If none of these terms seems right, what phrase would
you use? Is it more subtle than that?

JC: That's a very good question, you know, because sometimes you can be inspired
by something and there is a very subtle take-up of the idea. When I say the ideas
wash over you, it's almost like you take it In through a form of osmosis, so that's one
way. But sometimes the ideas hit you with a profound wave of recognition that they
are either something important or that they speak to you. Have you ever had that
thing where you think, my god that writer is writing to me: this is me, this is my life.
That's a real revelation, and that revelatory moment is equally as exciting. So, I think
overall, for me, it's a kind of slow uptake of ideas.

If you are an artist who works from project to project, as a lot of contemporary artists
do: they define a body of work that they will do, they work out a methodology for
making it and then they set about doing it, sometimes to have a really strong clear
idea, even if it is someone else's that crystallises the methodology for you is very
useful. But I don't work like that. My projects are really porous. In fact, they're not
projects, it's a continuum of ideas, I mean I have been interested in the idea of the
urban in the city and the way people claim spaces. Even just saying that the way
people claim territories which is a really strong interest in my work, and that is very
Ballardian. The psychology of what people do to protect their turf…

TC: Like in Highrise, have you read that one? Think that's actually the first Ballard
book I read.

JC: So he is really someone who is obviously very interested in talking up those sorts
of things. I think it's very English that kind of literature, that idea of how you stand
your ground and protect your turf, you know.

TC: My home is my castle.

JC: That sort of idea. And again, you know, it's not in your face. It's quite polite in a
way, but it gets under your skin, it's very powerful. It's insistent.

I think it was clarifying. They were kind of in my work already.

So, a couple of things, if you go through this book [Jon Cattapan: Possible Histories]
you will see the trajectory of my work. There was a trip I did to Italy in 1985 and while
I was there I kind of decided that I wouldn't try to be an artist any more. I'd given it a pretty good shot and some very good things had happened, but you know, I was in the first of a few personal crises. And I felt that there was time to maybe come back to art at some future point. But, in fact what actually happened was that by going to Castelfranco, my parents are Italian, I discovered that was the birthplace of Giorgione the Renaissance artist, and that dotted throughout his paintings are views of Castelfranco. So his two major works are the Tempest and the Castelfranco Madonna, which is in Venice. And in looking at those pictures, just those two works, it suddenly dawned on me that maybe I could come back and use Melbourne as the backdrop to my painting. And then I started thinking about artists like Nolan and Tucker and Boyd and how they all used Melbourne, and I thought: oh yes I could do this. I could be that kind of artist. That really kicked me off. It changed my work completely.

As you can see in the book the early work is very primitivistic and highly influenced by Picasso, Dubuffet: those kinds of early modernists. And when I came back, I began to use a pictorially deep kind of picture plane, and I would flow into these kind of little buildings and objects on it. These were crude attempts at initiating a narrative, like a narrative puppet play if you like. And out of that over, a slightly longer period of time, the buildings became more and more based on actual buildings in Melbourne: an actual church, the town hall in St Kilda, a church that had burnt down in the city, you know so, the conflation of real events with this narrative invention.

And it was the architecture that located these paintings with a sense of place for me, in a very simple way. There was no grand idea about identity, that came a little bit later. A little bit later I learned how to more properly theorise some of those ideas in my work. But at that point I was still just working out whether or not I could keep painting. So that was 1986 when began making these works. And by 1989 they were well in play and a friend of mine, who is a very well-read fellow, came to see my work and said: you know you should have a look at Ballard's work. And I said: what's a good one to start with? and he said The Drowned World, and that's how it happened.

TC: You said earlier that you read a lot of fiction. I agree completely, some of the best parts of my education has come from reading novels. You can learn so much, you don't have to read dense, impenetrable theory all the time by any means. Have you worked with any other particular novels that have had that kind of impact on your work?

JC: Yeah, there have been a few. And not just novels. There have been particular writers that I have found really pretty inspirational. Virilio’s writings I have found really prescient as well; all that writing about war and speed and technology, you know. Also very, very prescient but in an entirely different way. There were two other writers from that time that I was reading a lot of. The first one was Italo Calvino and the way that he counter balances stories within one novel, you will have layers of stories, that also had quite a big effect on my work. And the other one was the short story writer Raymond Carver. And I just felt that when I was messing around with what I call these little stories within my own work, I just kept coming back to Carver’s work. And I just found this empathy there.

TC: But, it's not for you a matter of reading a book and thinking: I'll am going to work with that. It's more like a body of ideas that feeds into the work?

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5 Ibid., 17-65.
JC: It's hard to know, Tracey, isn't it, how it works? You know, I do remember, for example, seeing a lot of Hitchcock films in the mid-eighties and thinking that surreality of these films, that's what I am going to go for. These long shadows, they are kind of surreal, but you don't know why. You can't pinpoint what it is about them. So I think it's the same with books, you know, sometimes. The beautiful thing about books of course is that with fictional books we imagine them according to our own needs and our own desires.

TC: In many ways I like books better than movies because of that, because they do engage the imagination in that way. Apparently *The Drowned World* has been optioned for a film, I'm very upset.

JC: I'm surprised that it hasn't been made into a film.

TC: I guess everyone's process is different. As I said, I read *The Drowned World* for the first time sometime sometime in the late-eighties, and then in 2007 I quite consciously decided to make an artwork that responded to it. So it had this profound impact on me and then for like 20 years it just percolated away, and then one day I thought: I'm going to make a work that directly responds to this. So I'm always interested to see how other people come to this decision, or is it a matter of just recognising later that you are doing it?

JC: I suppose I didn't do that, but I understood intuitively that it was like one of the spines running through that body of work. And that that was a very good thing to have that. In fact when I moved to Canberra, when I left New York I moved directly to Canberra, at that time there was a magazine called *World Art*, and I've got the article somewhere so I can send it to you, they asked me if I would write a short piece about the influence of Ballard on my work. And what I chose to do was to write an article about how Ballardian I found Canberra. So see what happens is, I think, is when you've got something percolating away like you have had, and maybe I have had this as well, is that you tend to see the world through the eyes of that percolated series of ideas or images or potential images.

TC: This is something I have been interested in, the difference between what is Ballardian and what is directly influenced by a particular book, in this case *The Drowned World*. It's easy to find lots of work that is Ballardian...

JC: I suppose if I had to nominate I thought really was the direct response to his work it was the very first of the cityscapes, and it is this work here called *The Bookbuilder* [1992]. And why I come back to this work is this was made after living in Canberra for a year, and it has this really painterly background, but then over the top, for the first time, is this system of floating cityscapes coming down through it. And you know everything looks as though, to me, as if it is on the verge of melting down or forming up. And then you have these two little side panels, these two little attendant narratives, within this larger story. So that is probably one work that was probably pretty critical to the time.

TC: You have also quite nicely captured that notion of contingency that you were talking about: which is foreground and which is background?

JC: That's right. And it's quite porous, the way things move in and out. And you know that went on over many, many works. All of these works are kind of dealing with a very similar thematic. At times they are more bodily, and at times they are more

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6 Ibid., 139-41.
directly about the city. And at the same time, I'm doing all these little drawings that are much more narratively based.

And I'll just come back to this idea about Ballard that I find really intriguing, it's that he is able to tell a big story like *The Drowned World*, you know there are big ideas in that, but there is this funny kind of intimacy in it. And even though it's a prescient novel, it is told through the eyes of just a few people. And the psychology of those people, as we know, is all about how to claim and hold on to what they've got.

**TC**: [Looking at an image of *Life Forms (Seoul), 1997*] There is a scene in *The Drowned World* where he is in the diving bell. Is that a direct response to the novel?

**JC**: No, it's not. This figure, which looks like an explorer figure or a diving figure in one of those old-fashioned diving bell costumes, that is all about the idea of just trying to find your way. That is also another big theme in everything I went on to do. In this work here [looking at images such as *Red System No. 1 (The First Deadly System)*, 1997-98], there's that kind of idea of people becoming part of the network of the city.

So, it's interesting. In a way I haven't thought about Ballard for ages. I started reflecting on it because I knew we had this interview today. But it is good to remember that in your life as an artist there are sometimes key influences that come into your life, and sometimes they seem peripheral, and it's only in retrospect that you realise just how fundamental they have been. I think that for me having read *The Drowned World* was just a great big stroke of luck. A great big stroke of luck because it has stayed with me and formed a kind of way of wanting to calibrate the world around me, if you like. It is calibrated through that kind of sensibility that everything is in flux, things are contingent, resources are scarce or running out. These are things that I'm interested in thinking about. There is just nothing much we as artists can do about it. But it is very important to bear witness.

So, in my own way, I have never really thought of myself, Tracey, as a political artist, but there is a kind of politics in some of these ideas. And my feeling has always been that if you can deliver them out in a way that is kind of aesthetically pleasing, and can therefore hold the viewer’s attention, if they look long enough they may start to think about what the drivers are for the imagery, for the way of making the work.

Now that's a pretty simple idea. It's not a new idea. It's an old idea. But I reckon that a lot of artists don't think much about that. They don't think about how they going to hold their audience. If you think about it, we live with this abundance of visual stuff in the world: there are just images everywhere. Everywhere. And you and I can open up Facebook or Twitter or Instagram on our phones and there will be a stack of images straight away. So our work as artists is in competition with all of that.

And painting is slow. Slow to make it, generally. And also slow to reveal itself over time. It is not to everyone's taste to have to deal with texture and lumpy bits of paint and colours that may or may not quite work. A lot of younger artists are interested in images that are not static. They are interested in things that have this other kind of life. But I still think that it is very plausible, sort of inspire of that and partly because of that, because there is this superabundance of images out there it is plausible that painting can still be important. Because it offers this deep reflective space.

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7 Ibid., 155.
8 Ibid., 158.
And the thing, just coming back to *The Drowned World*, when you asked do you have a word, the other word I use is reflective space. Because it provides a way for the viewer to think about a whole lot of things through this reflection of the world that it is giving you. This post-apocalyptic world is reflecting back to us our own world, or in actual fact not our own world as it was then, but our own world to come. I don't think he could have foreseen where we are now, but he probably did have a bit of prescience about it.

**TC:** I've read Fredric Jameson talking about dystopian and utopian visions, and part of what he says is so powerful is that what sci-fi does is projects you into the future. But the future you are viewing is contingent on the past which has yet to come. So it's kind of this nifty trick of time. So what Ballard is doing is presenting our present as the past which has created the future. And that is also what works of art on similar themes can do.

**JC:** That is really interesting. If you made paintings that could do that you'd be doing something really fantastic.

**TC:** But that kind of is what you are doing. Well I'm having a go at it, you know. But there is probably, between the desire for my works: what I would like them to do for the viewer and maybe for myself and what they can actually, do there is a huge gap. That's the thing though about being an artist, it's the failure of being able to get to what you are trying to do in a sense that keeps you going. It's that old existential thing that if you ever were to arrive there would be no point in continuing.

**TC:** And also you can't foresee how other people will react. All you can do is just do what you're going to do.

**JC:** I think that's true.

**TC:** I think art does matter in that way. It's actually like the old feminist tenet, the personal is political. Everything you do is political. And a lot of people that claim they are making art are actually just making product, but that in itself is a political act. Everything is. But if you are actually trying to make something that has something to say, if it works, you are touching people in a way. Because you have this combination of emotional and intellectual reaction that I only ever really get from reading fiction and from art. Occasionally in movies, but not as much there's not as much engagement as there is with art. I actually think, because there is that requirement to engage, it takes a bit longer; that makes it stick with you, that gives art the force that it does have.

**JC:** I think that's true, you know. And I think in a way that's what puts it into a field that we might now recognise, or we call it research. I think there is some kind of mechanism there where you are in this kind of role as a precipitator of ideas or impulses or feelings or even emotions and then the viewer, if the kind of connection is good, the viewer will stay with the work and maybe deliver back out to you an unexpected outcome. I like that very much. I think probably Ballard would have understood that perfectly.

But the other thing with that, one thing we haven't spoken of in terms of Ballard’s work, and I suppose the thing that I admire a lot about it, is that it is just completely obsessive around those particular themes, whether it is *The Drowned World* or whether its *Highrise* or *Crash* or right up to the end of his life with books like *Super*
Cannes, the themes are exactly the same: people trying to claim turf and hold onto it. And you’ve got this dark underbelly psychology emergent within that. And it's there time and again in English literature.

**TC:** Well, I went back and read some of John Wyndham's books, as they comes up a lot in discussions of Ballard's disaster fiction. And it is seen as a peculiarly English tradition. And I found a book that people writing about Ballard discuss that was written in 1885, *After London*,⁹ and it is basically *The Drowned World*.

**JC:** Really? I would love to read that.

**TC:** The plot is a bit so-so, but the first third where it is basically descriptive, I'm sure Ballard read it. It is very interesting…

**JC:** Well, ideas don't come from nowhere.

**TC:** Now that's just it, there is this tradition. Will Self has recently written a book about drowned London¹⁰ and he was a friend of Ballard's and has written about him extensively talks about this book and about *The Drowned World*. And now he has written his own drowned world. So there is a whole English legacy of drowning London in particular, but this whole post-apocalyptic genre is claimed as an English tradition for some reason.

**JC:** Do you remember that English film about the little boys on the island and they form this kind of…

**TC:** *Lord of the Flies*?

**JC:** Yeah, *Lord of the Flies*.

**TC:** Which comes from a book [William Golding, 1954]. I re-watched the film recently [dir. Peter Brook, 1963].

**JC:** I think this is part also of that whole genre. The English of course have this fascination, I think, with the stratification of society. So it's not just about how you claim territory but what your stake in it is and how you define social order through it. And I think in a way, I'm not sure it's completely borne out in *The Drowned World*, but in books like *Highrise* it's certainly is. So I think it is a wonderful kind of open ended narrative that you can play with. And for myself, those are the sorts of things that interest me. That sort of sociological impact of how we come together in a place like Australia, this supposedly multicultural place; how we define ourselves as groups to claim a part of our existence is something that I find particularly compelling to look at.

**TC:** That is really interesting. I am so glad we talked because what I wanted to do with this is discuss the novel with other people that have really thought about it, and this claiming of territory isn’t a theme that really stood out to me. I was looking at it as more of a straightforward nature culture clash…

**JC:** Well, I think you're right.

**TC:** Yeah, but it is sooo obvious. I think what you have identified is very interesting and clearly in there, but in a much more subtle way. And talking about *Lord of the Flies*, I recently re-watched it and I hadn't realised that it is a Cold War story:

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imagery in that movie, there are nuclear explosions, and that is part of what I'm really interested in. This Cold War genre of post-apocalyptic fiction has so much resonance now. We have just moved from one crisis to another.

**JC**: And I guess, you know I've been very interested lately in research and the making of art on the idea of conflict. I don't know if I told you this, but I have been engaged in an ARC grant with Charles Green and Lyndal Brown to make this big body of collaborative work around these ideas. It came to fruition, at least the first iteration, this year through a couple of exhibitions and a book called *Framing Conflict* which is an essay and a set of images. And I think, you know, for someone like me, why I got interested in pursuing this was I went to East Timor as a war artist from the Australian War Memorial, so it was a natural lead on from that.

But prior to going there of course I had this whole prehistory of this idea of how people claim stuff. And how conflict comes out of that. There is this whole other part of my work that deals with the asylum seeker narrative. So you get works like *Carrying* [2002]¹¹, that idea of people trying to get somewhere. Everything is in flux everything is very fluid, nothing is fixed, they are on a raft, it's this crowded, crummy little vessel. You know, nothing has changed. Those sorts of ideas are there. In a way they are there to be had. And I supposed what happened to me in the intervening period was I went from being interested in fiction as a kind of background tableau to my own thinking to being very interested in what was happening in the world around me.

**TC**: Sometimes it is stranger than fiction

**JC**: Well it is. It has become this strange reality now. Who would have ever thought that we would have detention camps in Australia, as an example.

**TC**: Well we always have, but it's so swept under the carpet. I didn't know that we had interned Germans in Australia during the Second World War until I stayed at a camp.

**JC**: And Italians. My uncle stayed at one. So anyway, these I guess are sort of the general ideas.

**TC**: I think I've got what I need, unless there is anything else you want to tell me?

**JC**: Well I think we have covered a fair bit of ground. I guess if I was going to try and encapsulate I'd say I don't believe I ever illustrated Ballard's work, but at the moment I found Ballard, and in particular when I say that I'm talking about reading *The Drowned World*, I understood that here was not only a potential influence, but also a very kindred kind of artist, a kindred spirit. And that has led me, over a much longer period, through the iteration of these floating cities and very fluid landscapes, even the work I made coming out of having been in East Timor which were all these surveillance pictures: night vision green paintings, that in turn has influenced the cityscapes. It's all one big kind of, one big body of work that I think goes almost all the way back to that particular moment.

It was sort of one of those light-bulb moments when you think: oh there is a fair bit of work to do here. That whole time I was in New York thinking about the *City Submerged* I was thinking about Ballard, that's what I was doing. Living in Manhattan making work and thinking about these stormy, rainy summer nights and so on with

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the kind of slithering lights on the oily roadway and stuff. I mean it's a very romantic image, it's a very filmic image, but it was kind of being triggered by this idea of a narrative that is about everything just getting ready to slide away.

**TC:** Ballard is such a visual writer. I mean in many ways, his ability to conjure imagery is so much stronger than character or plot. And I wonder if that is why he appeals to artists?

**JC:** I think so. I think so. This is why I am so surprised, as I said to you, that no one has made a movie about *The Drowned World.*

**TC:** I really wish they wouldn't.

**JC:** Yeah, I kind of wish they wouldn't. Some things are better imagined by us.

**TC:** I guess they've been waiting for CGI to get to the stage where they can do without models... I mean the whole idea of the city. At one point I was really wrestling with how to focus my PhD. You come in and you think you know what you're doing and then you realise you have no idea. And I'd go through stages of becoming interested in this really peripheral part, and I became really interested in the idea of the city as a metaphor in art. I think that's a really rich area of exploration. It's obviously something you've been working with...

**JC:** Well again, Tracey, I'm probably pushing my own barrow a little bit here, but I can't believe that more artists haven't used the entire light motif of the city. It's just there to be had, it's the great story of our times. I mean think about it, we have passed this moment when more people live in cities than in rural environments. It is going to forever change the shape of the world.

And of course global warming is a side story to that, even though it's central. That's one of the outcomes of this change in the way we are living. When you have these super cities that have been constructed over just a few short years in China where they used to be rice paddies or whatever, and I've been to some of these new cities in China and there are just these endless apartments and very little greenery and they are nightmarish. And, as I said, it's good to bear witness to your times in whatever way you can. I mean, I have no desire to preach about it through my work, but you so could.

**TC:** Nobody likes being hit over the head do they?

**JC:** but given a different set of circumstances I wouldn't be a painter anyway, I'd be a filmmaker. I went to art school as a way of getting to film school, I didn't want to be a painter. But when I went to art school, in a way, I just got stuck because I couldn't nut out painting completely and it just continued to hold my attention. And it still does. I still feel I'm just at the very beginning of this endlessly deep pool. And it is frustrating but very pleasurable. But the potential to really reach out to a lot of people through doing what I do is very limited.

**TC:** Well, yes if you are making blockbusters you can certainly reach more people, but there is so much compromise involved.

**JC:** But you see with someone like, let's take a film like Blade Runner, one of my really favourite films if we are talking sci-fi, and that whole messy idea in that scene when Harrison Ford turns up on a city street and you're not sure if it's LA or if its Hong Kong or if it is Shanghai. And there is this kind of melt-down of Asian influences
through it and everything is wet and everything leaks, and there is this drizzle that you think is probably acid rain. I mean that is a continuation of *The Drowned World.*

But it is also, that film, another little marker in someone's imagination of the prescience that is required to think about the times that they were living in. Because what they delivered to us is kind of a version of our world. Like, if you go to Shanghai now, if you go to Beijing: A. You are never going to see the sun. B. it's really crowded and C. it isn't just Chinese any more, you'll see aspects of world culture there. It's all mixing up. Isn't that fascinating? And how long ago was Blade Runner done? 30 years ago?

**TC:** It was maybe 89? [It was actually 1982.]

**JC:** Say 25 years ago.

**TC:** And it is based on a Philip K Dick story, from the 60s probably. [*Do Androids Dream of Electric Sheep*, 1968.]

**JC:** Science fiction I think has got, I mean I've never really thought of Ballard as a science fiction writer…

**TC:** There is not a lot of science in the fiction

**JC:** It's hard to pick a time, I mean one understands that it's the future somehow, but it feels like maybe it's a parallel future. Now it certainly does.

**TC:** Now it feels like a prescient future.

**JC:** While *Highrise*, that feels like it could happen any minute.

**TC:** I think that is happening [laughing].

One of the people I have been reading, the theorists, is a guy called Frank Kermode. And he wrote a book in the 60s, 1966 think, called *The Sense of an Ending.* And he gets quoted all over town as one of the earliest people discussing the apocalyptic in fiction. He's a literary critic, but what he says, which is really interesting because it's what I've been looking at, is that every age thinks the end is coming. It's just for different reasons, it's part of how we make sense of the world is to be looking for the end.

And he calls the human condition ‘being stuck in the middle.’ Because you have your birth, which is the beginning, and your life, which is the middle, and nobody knows what the end is. So we are always looking for an end. And he quite perceptively said that, there is no difference between this feeling of crisis. So the people in the middle ages that thought that the end was nigh and it was going to be demons and hellfire, their fears were just as valid. And the minute the Cold War was over...

**JC:** It's either climate change or Islam.

**TC:** Exactly.

**JC:** Or both.

**TC:** But it is part of the human condition.

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JC: I think that is very interesting. I think, you know sometimes, that the narrative around the end, it suits people. It's kind of a form of control. I believe in climate change obviously. But when you look at how scary that is it is really going to modify peoples behaviour. Likewise when people pump up the whole anti-terror thing, and more and more, you notice in the paper the word jihadi and the word Muslim, they are together now. It's become inseparable. It's so sad. It's so sad. If I was an Australian Muslim I'd be getting quite spooked by all this activity. So that is a way of kind of controlling things, I think.

TC: Well what Frank Kermode was trying to say as well is that that is why these stories feature so strongly in religion. If you know what the end is, even if it's a horrible end, it's not so scary any more. It gives you a certainty that you truly never can really have. But if you feel like you do know, that is a form of control. It's fascinating.

Thank you so much. That was brilliant!

Bibliography


Janet Tavener


TC: Was this the first time you read *The Drowned World*?

JT: Absolutely.

TC: What was your initial reaction to *The Drowned World*?

JT: I actually really enjoyed reading the book. I mean it was, it changed the whole context for me because I was actually in Florence in the area that had been under three metres of water the same decade that the book had been written.

So for me, I kept going back, I was reading the book and at the same time I was going back and watching the videos of footage of the artworks going down the streets and all those sorts of things. I guess when I was reading it I just kept thinking about where we are now, and the vision that he had back then, and just juxtaposing all those things.

TC: And did it make it seem more plausible because of where you were when you were reading? Do you think you might not have thought of it in the same way if you had been reading it at home? Do think it influenced your reading of the book?
JT: Ah… Look I think I still would have probably have covered the same issues, but it certainly made it seem a lot more real, as it was already happening. It wasn't something we were thinking about in the future, in a way, that constant drowning of the city, the evidence was there.

TC: You were surrounded by the evidence that this has already happened!

JT: And possibly it will happen again.

TC: So what did you think were the major themes of the novel, from that first reading?

JT: I guess it was all about the future of humanity and what would happen to the planet. And you kept thinking about, well the reptiles, and it's super hot and the mosquitoes are getting humongous and the animals taking over, and the foliage, and the re-claiming in a way. So that for me was a really big one.

TC: That nature/culture battle…

JT: Absolutely.

TC: Do you think that is something that he was interested in? Or was it just a sort of set piece for him? Do you think that was what he was trying to get across?

JT: Hmmm… It's a bit hard to say what he was trying to get across, but it certainly came across that way to me. Just to make you think about a whole heap of things that are happening around the planet, and, you know, you see all those sort of Detroit ruins and all of those images of things around the planet where nature has taken back over buildings.

TC: My bloody vine… [A reference to a very resilient garden pest.]

JT: [laughing] Your vine!

TC: Honestly! It wouldn't take years, it would take only months to just take over the whole house.

JT: Mind you, how many species are we losing in the meanwhile? And which ones are going to survive and which ones are not? I don't think the polar bears could have ended up being there! [laughing]

TC: No. Well, I actually made a list of all the animals that were mentioned at one point. And there are hardly any mammals. There are a couple of monkeys, but it's mostly reptiles and bugs.

JT: But not the bugs you want.

TC: Well, what kind of bugs do you want, [laughing] especially if they are going to be big!

A number of the artists, well particularly the women, found the book not great to read because of the overt sexism of Ballard's view. Did that annoy you? Did you feel that?

JT: No. No, that didn't bother me at all. Just because I thought it was of that period. I wasn't sort of, you know how it's all about context… oh yeah it was probably there but…

TC: It didn't make you super annoyed?
JT: No, because it was part of the sixties.

TC: I just found the imagery so seductive that you were just kind of sucked in. And then you are like, actually this plot is just kind of wacky, but the world itself is just so compelling.

JT: I actually secretly like disaster movies. Even 2012 and all those sorts of things. So I quite enjoyed that whole process and I found it really visual. The whole sort of lagoon and the green gunky water, and the gel. And I experimented with jelly quite a bit. And I did use it in part, but it was very, very hard to work with water and jelly because of the whole floating thing. So for me it was real sort of experimentation and some of the things I wanted to do I couldn't do because they physically couldn't be done. Unless it becomes something else.

TC: Why do you think people like you and me are drawn disaster scenarios?

JT: I guess it is a fear of what could come, to a certain extent. You do start to think about the future and, you know, you start to try and process what is actually happening.

TC: My theory is that it is all bound up with having been brought up during the Cold War. I never thought I would get to be this old. I thought we would all be blown up by now. So when I see a disaster scenario it kind of reinforces my own grim worldview, [laughing] which is quite satisfying.

JT: You remember 9/11? My brother in law, he's a really high finance kind of guy. He really thought that was going to be the end of it all. He was actually thinking about selling his house and cashing it into lumps of gold. He was really starting to plan for the next stage of what was going to happen.

TC: I had a really immediate gut reaction at the time watching it unfold live on telly. These days I go to bed so early I would have missed it all, but back then I was still awake watching it all happen. It was like 11 o'clock at night or something and you could see the planes and I just thought, well, it was this overwhelming sense of self pity actually. It was horrible, because I was in bed alone. And I thought my god, we are going to die. I felt someone would push the button…

JT: Absolutely.

TC: And I thought I'm going to die alone and that made me just so upset because I had just come out of a bad breakup. And so I rang my brother in America and woke him up. So at least I had someone to talk to.

JT: Did he even know it was going on?

TC: No, I woke him up. It was only like 6 o'clock in the morning in California, or something. So that triggered all those Cold War fears, because there was the Pentagon they tried to fly into as well, but that plane crashed. And I thought someone is going to hit the button and we're just going to die.

But afterwards I didn't think that any more. I thought it would happen then. But your brother in law obviously thought it would continue to happen…

JT: He did. He did, very much so.

TC: Interesting.
Going back to the questions, so I guess the theme you identified in the novel was this sort of clash between nature and culture that Ballard was writing about in the sixties. So I guess it probably goes without saying that you think that this is still quite relevant today?

**JT:** Absolutely.

The other thing I was really interested in while I was reading book was the whole sort of collective unconscious. The notion that everybody was starting to have the same sort of primeval dreams. It didn't influence the making of the work, but it was something that I was really, really interested in: that we all end up the same. They all ended up the same. That there was this thinking and this thing that took everybody together to this dark place, and I thought that was really interesting that he actually wrote about that. And that he linked all humanity together in that way, and that everybody in the book was going to end up the same way.

**TC:** That's interesting. I think that kind of Jungian thing was what he was trying to get at.

**JT:** Absolutely.

**TC:** That was his stated aim, if you can believe the artist about his own aims. That is what he says he is trying to do. He claimed to not be that interested himself in the end of the world as such, he was interested in putting his characters under extreme pressure and seeing how they would behave. So that was just a way of putting them in a difficult situation. It just happens to be the end of the world that made it difficult. It was just a kind of trope.

**JT:** Oh, OK. Well that's interesting because I thought that it was probably deeper than that.

**TC:** No. Well, not according to him.

**JT:** Maybe his subconscious was going wild and he didn't even know it! [laughing]

**TC:** He wrote four disaster novels early in his career and then he would moved onto other things which are much more can contemporarily based. Such as *Highrise*, which they have just made a movie of, but I haven't seen it.

**JT:** Have you read them all?

**TC:** I haven't read them all. But I have read *Highrise* and it's really a very similar situation in many ways. But it's not the end of the world, it's just a bunch of people living in a multi-storey apartment block, but they all turn utterly feral.

**JT:** Rats in a room.

**TC:** Exactly. So it's that same thing of putting people in this kind of world, and then something goes wrong and you see how they behave. That's what he claimed to be interested in. And that comes through in a lot of the work.

**JT:** I also found it really interesting that they wanted the lagoon to return back to the way it was; that they almost found security in knowing it would end at some stage. I thought that was really interesting way of thinking of the world. You would think they would want to survive, but actually they didn’t.
TC: Yes, well I have made quite a lot of that in my analysis; the notion that maybe our extinction is maybe not such a bad thing. We should just move on [laughing].

So, how would you describe the work that you made in response to the novel? Do you think of it as ‘translation,’ ‘interpretation,’ ‘inspiration,’ or if none of these seem like the right word? I’m trying to find out what is the right word in making work in response to a book?

JT: I guess I was inspired by that. I was inspired by the imagery of these scavengers sort of coming around trying to sort of get all this electrical equipment, or generators or whatever they were, and at the same time hoarding all these amazing artworks. That they [the artworks] became like moulding decaying things. They were kind of thrown up against a wall, they almost became gaudy. Like these really disgusting things that weren't semi-treated like trophies that were on this boat. And I guess for me it was like this juxtaposition about what these treasures became for them and how we treat them in museums. So that was the big one for me. That the world was ending, but they were still sort of hoarding these things.

TC: Still hoarding artworks. Did you feel that the artworks had a different significance then, within the context of the novel's scenario, did you think that they were hoarding them for different reasons than we do?

JT: Absolutely.

TC: What did you think that that was?

JT: Well one, the crazy… I can't remember his name.

TC: Strangman.

JT: [laughing] him. You know I think that he was getting some sort of, he was liking the whole fact that he could take and show them off, like they were trophies. He wasn't really interested in the…

TC: It was about power and prestige. But it still is a bit, isn't it?

JT: [laughing] it is! But they became his. They weren't actually something that the general public could see, or became available. They were his little trophies. It was his way of owning a piece of the world.

TC: That's interesting.

So how did go about trying to translate what you pulled from the novel into your own artwork. How did you find that process? Did you feel like it was a direct translation, or was it just sort of starting point and the artwork takes its own…

JT: Well, a little bit of both in a way. It was very much a starting point, and then you have the whole technical issues that come into making something like that, so it has to evolve a little bit.

Plus I wanted it to stay true to the novel a little bit, I wanted it to have that darkness. In keeping with my practice of working with ice, but at the same time I wanted it to look like it was muddy, it was dark, it was green, it had that sort of under the water thing to it. But the whole working underwater thing, it's probably one of the most difficult things you can possibly do because everything floats, and everything changes, or melts. Or any of those sorts of things. But in terms of content I guess, I guess the frames just became like a symbol.
TC: So what was the chief thing you are trying to convey? In your own mind what were you trying to say?

JT: Well, I guess that these things that we value, that are a symbol of culture, are now going. And nature is actually reclaiming them.

TC: so very much about that nature/culture...

JT: Clash. Does that make sense?

TC: Absolutely. That was absolutely how I responded to the book, very strongly in the very first instance. And then the more I read it, and the more research I did in other areas, my view has skewed slightly in that I am not seeing it so much as a clash any more as an intertwinement.

But the results are still absolutely the same in that the remnants of culture are becoming overrun. But you start to see it more as an absorption and a return than a battle. Which is slight change in attitude, even though the result is exactly the same.

JT: I kept wanting to see what it was like at the poles. I kept wanting to have more visuals, I wanted him to tell me visually more what it was like there. Was it all green? Were people...

TC: That is where the last organised society was, in Greenland.

JT: Yeah, and what was it like? Was it like 30°, was it, was you know, foliage taking over, how are they surviving? How are they getting food? I wanted to know what was happening where everyone kept travelling north. I wanted to know what was happening north.

TC: That's really interesting [laughing]. I strangely have never thought of that!

JT: will I did! I kept thinking about that...

TC: Is it good up there? And why don't people want to go up there?

JT: yeah. And what is happening with the population? That sort of thing. I kept wanting to find out more about it, but I never really got it.

TC: [laughing) Well, that's a book that could be written. Meanwhile back in Greenland...

JT: [laughing] That's right!

TC: I actually wrote a chapter, an imaginary chapter, in which I gave Beatrice more back story [see Chapter 3.5] Because there's no way she could be that pathetic all the time and have survived until they showed up. And in the scenario I made I had them doing government sanctioned breeding programs up in Greenland, so that's part of the reason why she didn't want to go there.

JT: [laughing] She was happy staying with her magazines! And her patio pants.

TC: Yeah, she didn't want to go up there and be a breeding mare, but who knows. Because human fertility was well on the decline in the novel.

JT: You think she was a feminist in the end?

TC: I think she just wasn't interested.
JT: Fair enough.

TC: And then she was just drunk all the time, and then she was just ridiculously helpless by the end of it.

JT: No I didn't really get that, the feminist...

TC: No, that really annoyed me when I first read it in my late teens or early 20s. I was quite a bolshe feminist at that point. So the only woman is just drunk all the time in a bikini? I was like in your dreams buddy! [laughing]

JT: But she was quite happy to be by herself, she was quite independent. I mean it didn't matter if Robert turned up or not.

TC: Yeah, but she was quite pathetic by the end, she was semi-kidnapped…

I think that's about it, have you ever worked with a novel in this way before?

JT: No.

TC: Did you find that a challenge?

JT: No, it was good.

TC: Did you think it was a fruitful way of working?

JT: Absolutely a fruitful way of working. I think it was a really great project to be involved in. It wasn't that far away from the sorts of things I think about and the way I work anyway…

TC: That's because you were selected because of the calibre of your work! [laughs because of previous conversation about the ethics committee and the notion of flattery as a form of coercion.]

JT: [laughing] But you know what I mean, it's not like I was having to do something that was foreign to the way I think, I actually found the whole thing to be a really positive experience, can I say that? It's not incorrect? What did the ethics people say, coercing…

TC: To get what? [laughing] Gosia found it really difficult because it's not how she works at all. She normally works with what is physically in front of her. And I think that comes through, just between you and me, in the way that she responded. The fact that she found it difficult comes through.

But that is part of what I'm interested in, finding out how people found it.

I mean in the ideal world I was hoping to find people who had worked with the book already, but I didn't really find any. So that's why I initiated this whole thing, I thought I'll just make some and then I can talk to them about it.

But I guess it is inevitable if you just invite people whose work that you like, but they don't normally work that way, that some of them will find it more difficult than others.

JT: It's all about making the art isn't it?

TC: Yup. Anything else you want to add?

JT: Nope. Good. Thank you.
Tracey Clement (TC) interviewed Gosia Wlodarczak (GW) at SCA, 14 October 2015. They discussed her interpretations of J.G. Ballard’s novel, *The Drowned World*, and the work she made for the exhibition *Mapping the Drowned World* (M-TDW), held 8-31 October 2015, at SCA Galleries. Wlodarczak’s first language is Polish and the idiosyncrasies of her English have been left intact.

**TC:** Can you describe to me what you thought *The Drowned World* was about? What did you identify as the themes and concerns of the novel?

**GW:** When I read it, I actually didn’t like it. It felt so much, this type of sixties narrative. Almost like American film style: this is the straight guy who is a hero; and the girl, who must be beautiful, and she is the heroine; and there is the black guy who is the bad guy. And all these things, it was very, very almost fifties/sixties. And I really didn’t like it.

And I was thinking, yes, the story is about global warming, it is just obvious. It was this horrific thing, almost like Planet of the Apes and blah, blah. But, it is also somehow visionary because it talks about the reality which is possible, can really happen. And it is very often with the writers and the artists that they have this kind of imagination.

Imagination based maybe on scientific facts, which they can work in their brain and then they make a little kind of a story. Which by the excitement would be very, very attractive to the reader or the viewer. But I somehow felt aggravated by the things which I told you.

So I thought now I have to do something about it, make it into a kind of ‘digestible by me,’ a new story. And on the basis of the projects on which I was working I decided to make it a language. Then use the fact that English is my second language. And it is not perfect English.

**TC:** It is better than my Polish!

**GW:** Well, [laughing] English culture people they are so kind, they always say this thing.

So I decided, because I was always interested in language actually, in words, and also in language as image. So the writing as image making, or the letters as objects. Signs, which they mean something, but also they are shapes. So they formed visual reality.

Then another thing was, the past and the now. My work is very much about now and the awareness of this very moment. Where I, which I occupy, my mind and my senses; my body occupies. Because the now constructs the future and is based on the past.

Also for Ballard when he was writing the book he was writing in the now, in his now, and he was writing on the basis of his observations and his sense of reaction to that. Using the science or the predictions, the knowledge about the climate and the possibilities of what could happen on the basis of old times of the globe probably. Or the changes in the atmosphere and the story of the universe, and things like that. He used them definitely to construct the image for the book.
And I thought that if I used, if I go into his language, which is old language, but also foreign for me, English is foreign to me, but his language being in the past is also foreign to me. Even if I spoke perfect English it wouldn't be that language, it would be evolved language, more contemporary. If it was fluent my language would be a little bit different from his language which is this proper English of the sixties, American rather.

**TC:** Well, he is English. But his attitudes, the sexism and the racism, are very much of the time.

**GW:** Yes, it's definitely American: it's chauvinistic, it's all this reality of this time.

**TC:** Everybody is pretty unlikeable; they are horrible really.

**GW:** They are. And somehow, so kitsch.

**TC:** Yeah.

**GW:** So, I was thinking, yes, I am reading the book, I don't understand it probably properly because of different culture, because of my language. And I decided to use this as the construction of my work. It is lack of understanding not only of situation of the past, because he is from the past and I am from the present, but also lack of understanding because of the language barrier.

Because I might speak English and understand but still it is not perfect understanding and still in the now I don't understand body language or spoken language on the streets 100% the same way like when I go to Poland and I walk up the street and I understand 100%. I understand this kind of sense underlying, this sense beyond the words. And in this way, there is no way I would understand this book.

And, the dictionary what does it mean the dictionary? There are different kinds of dictionary. The basic one which everyone uses which would be just the written dictionary of the words. Which I decided to use as my aid and some kind of tool to construct the works. And for the individual works I decided to read the dictionary and whenever I came upon the word which I didn't maybe understand in the context of the chapter, I couldn't translate it in my brain, then using the dictionary to translate the word. And of course I was extracting it from the text and writing it on the side; I had this kind of notes. So I got the word plus its description, so I didn't translate them into Polish I just got the description of the Oxford English dictionary what this word meant. And then I decided to transform them into drawings, into shapes. To transform them again, to actually use my system of *Found in Translation* drawings where I use, where I construct works out of them based on my drawings.

**TC:** But once you had chosen the words, did you then consider them as separate from the novel?

**GW:** Yes, but somehow the novel is always there. Because you can't get rid of it. I know that the novel is about global warming. So somehow, even if I tried, I couldn't completely get rid of the fact that the word belonged to the novel; to the story about the global warming and the city, and all this very imaginative story was there in my brain.

I think one of the reasons why it was like that, another fact of my past is that I am also a book illustrator. Because at the time in Poland when I finished the Academy of Fine Arts there was no site of the art making. If you wanted to make your art you had to do something else to support the practice, of course. So what I do, I studied, along
with drawing and printmaking, I studied design and illustration and I was actually a book designer and typographer and book illustrator.

And always, somehow because of that I think when I read the book it is in me [the ethos of the illustrator]. And in the translation between the words and the image come automatically. I decided to strip it from, as much as I can, from this imaginative thing and use my systems, my rules and conditions of making images. Which means chance and coding and this kind of system to withdraw myself as much as I can from this overpowering creative masterpiece.

**TC:** So you wanted to remove it from the context of the novel once you had chosen the words?

**GW:** Yes. I wanted.

**TC:** So how did you get to ten words, were there only ever ten?

**GW:** I decided to have ten. So, you know, when I started to read when I got to ten I stopped. I mean, I read the book, but I stopped with words because it would be out of the rules and conditions.

**TC:** So you didn't have a larger number and just choose ten, you just got to ten.

**GW:** No.

**TC:** Because that was outside of the rules you set for yourself?

**GW:** I always set the rules. I set the rules because somehow it releases the stress of making the decision as an artist.

**TC:** Yes, that is what rules are for.

**GW:** So, I make the rules and conditions in my practice and apply them always to allow my work to happen by itself instead of to completely overpower it.

**TC:** You have sort of been talking about this, but I have been asking people what word they would use to describe the process of working with the novel. And the word you have already been using is ‘translation.’ Some people say translation, some people say ‘interpretation’ or it could be an ‘illustration,’ or…?

**GW:** I think in my case it would be either translation or even system of coding: something to something.

**TC:** But you weren’t interested in translating the novel so much as translating the symbol of the word, is that it?

**GW:** Yes, rather converting something into something.

**TC:** Conversion, that's interesting.

**GW:** Because using these elements which I set: all these rules and conditions plus my tools, the alphabet, which has symbols like the Enigma almost, I had all that and knowing how to use it, using the rules and conditions I just started to construct, like coding something into something. So I think I included the words from the book, and these words from the book represents for me the past, from when they were written and his intention, which I can't of course understand, but I'm somehow thinking about myself. I think if someone writes something or draws something it is the same person, but in my case it is an interaction that was his present, was something in the words,
even though the words were printed into the book, but I didn't use the print I used the word from the dictionary which means it was the symbol that could have been any typeset. Or could have been handwritten. It was converted anyway into the sign, into the pictogram, which I prepared for them, the alphabet, which was mine. And in this way I think I convert somehow the past into my present.

And then it was this image on top of it, so the image somehow was, I think, which was used from the photographs which I'm taking all the time, the photographs which also represent moments of time and how I deconstruct them is again a kind of accident. I distance myself from the process by using the magic wand tool in Photoshop and by selecting parts of the image and then constructing from these fragments of the image something new.

So what happens with magic wand is it is the tool in the programme in which you can select a group of pixels which are similar or same colour. So that is how I deconstruct and construct my images, my photo collages. I just take photographs and set up the magic wand, for example for this project would be the tolerance of ten pixels of colour. And then I just hit the a spot in the photograph in order to select what I withdraw from the photograph and put on my constructed image.

And that is how I use this chance, because this chance, or the tool which is not me, selects the fragments of the image. So this is another kind of constructing from something which captured the present but is in the past.

**TC**: And is this something that you see as tying into the fact that the novel was envisioning the future? Or is this just something that you do anyway? Trying to connect the present with the past.

**GW**: I never thought about this kind of deliberate connecting before us. So this is because of the novel. I somehow in my mind I called that this is constructing the present from the past.

Because usually in my practice I think that I am capturing the present. Present, present, present, present. So this is from the past. But it is not like withdrawing from the past to make the present. And in this case the process is: from the past, that was someone's present, not mine, I am constructing my present.

**TC**: That is what is interesting about novels set in the future that it is, in this case, our past is pictured as the future.

**GW**: And it is the future which is actually, because when you construct the future in any form, science fiction film, novel or even the picture, it is actually a failure from the start. Because it is completely surreal, you can't construct the future.

So we are talking about futuristic works, which have a from, but it is false desire. Or maybe on the basis of anxiety we want to construct the future because we are somehow afraid of it.

**TC**: Well, yeah I think it was anxiety driving that particular novel, but also the whole genre of post-apocalyptic novels is driven by this fear of what will happen.

**GW**: But somehow, I think actually, this genre addresses the human psyche in general most directly because this is how our brain is constructed. We are always afraid of the future. I mean even if we look forward to it, there is always something which troubles or worries you or you don't know; you are afraid of death or accident.
or the unknown. The unknown is that we are aware of the unknown. I think it is just
us only that are aware or afraid of the future.

Maybe other species also, but we don't know. It is just very interesting activity of the
brain.

TC: Yes. So when you read *The Drowned World* did you think Ballard was
deliberately trying to picture global warming?

GW: I don't think so. I mean not in that, because we think, global warming this name I
think is just, how do you say, the wording global warming is the name which was
introduced much later. So he wouldn't know this name, global warming. He would
have maybe think that because in the past it was something which happened, that
the globe was going through changes in temperatures, it was cold, so it could be this
or it could be just the opposite, but he chose that one because maybe it was more
imaginative to go into the hot and the sun which is the killer of life, it is a very
powerful statement, could be. And also it works well with the science fiction and with
the imagination. The sun, this huge kind of... it gives us life but it is so powerful and
what is giving can kill.

TC: And did you think it was his goal to talk about the environment, or what did you
think, even if you didn't like the book or the story, what did you think the author’s goal
was?

GW: I am just not sure. If it wasn't about the environment, or if it was just this
apocalyptic idea. It must come the apocalypse. Because people always, through the
history of humankind, they construct the apocalyptic visions of the end of the world.
And it is not necessarily, it wasn't connected to global warming in mediaeval times it
was the punishment from the gods, for example and the forces of apocalypse.
Something had to happen, the hell itself, they are going to be doomed to the hell
because we are not good and all that thing, so I think that is rather connected with
this kind of thinking which is quite common. And always was and always will be.

TC: So if the theme is the inevitability of the end, then it is relevant in the past and in
the present.

GW: And some kind of not nice end which is important. Because it is always, through
the history of humankind, the end is always not nice in the imagination. And it is
much more imaginative and much more exciting for the people to think on this not
nice end then to imagine the nice end [laughing].

TC: What would the nice end be though?

GW: Oh, going to sleep, into this nice sleep and nice dream and the dream stays on
and this is how it finishes maybe? We don't know. You stop dreaming naturally and
maybe this is you. Because how to imagine nothingness? We can’t. It is beyond the
ability of our brain. And that is why we construct all these strange things because we
have to fill this gap, this ability produces anxiety. And we have to do something about
it in order to...

TC: So tell me more about the images that you used in your works? You were talking
about how you use the software to introduce an element of chance, but you choose
the images to start with. Do the images have a relationship to the words? Once you
have pulled them out of the book?
GW: Yes, somehow. Even though the words, when I revisited the words because I translated them using pictograms I created these drawings of mine. So the drawing was first and the image was later. So this alphabet was there and then I had those words.

So the process was like this: I had this alphabet already, I read the book and selected the words and added translation to every one of them. And then I revisited the words and that was the start of the image. So I tried not to be too much influenced by the book, but I think it was difficult, and I think in some instances impossible.

TC: So some of the book seeped in?

GW: Yes. Yes, but I try to actually give back the image to the word. Because when you think about the word it always creates image in your head.

TC: So where did the images come from that you used to start with?

GW: The images was from this huge database of images which was quite personal. The images were made from my mum, from her garden, by visiting the city by us, by visiting Poland and other places and taking personal images. Because I got different pools of images. They are very personal stories. They come from the Internet, some things which I am interested in. I get them from my friends because they send, and so these images were very much related to my place. To Poland and friends of mine from the old time and my family and my mother.

TC: So images from your past?

GW: And from visiting her now. Not necessarily past. They are related to past because the people which inhabit the images are from the past, but the images are quite present because we collect them when we go to Poland. So the past, but not very distant past: last year, this year, two years ago. That is this pool of really personal images connected to me being Polish.

TC: So each image has a relationship to the word, but again it is not a direct translation.

GW: No it is a kind of construction. I think about the word and what is this word, and what is the image of the word.

TC: And as a former book illustrator, something I have been interested then because I've been working with this book, but I am not illustrating this book, is what is the difference between illustrating and responding to it as an artist?

GW: I think to illustrate the book is to work with the people who read the book. Because somehow you are, you give them... It's like writing the book, you write the book not only for yourself but also for the others, for them to create their own. But somehow you direct them. So I think when you are an artist it is a little bit... because when you are an artist the work of the artist is the destination. When you are a book illustrator the reader is the destination. How you just try to create another book on the same structure, same idea, same story. It is not different story,[re illustration] it is same story but in a different form. It is converting the text to an image.

TC: So, as an artist, if the book is just an inspiration you don't have to be faithful to the book.
GW: Like here, the book was not to be illustrated, the book was just the fact to address. It's like when I make my artwork, I never said that I was inspired. When I work I always just, I face something which push me to do something about it.

TC: That's a nice way of putting it.

GW: It's not inspiration. I don't like the word to be inspired. I hate it actually when people say what was your inspiration, or by what were you inspired to do this. And I really don't like it. Very much.

TC: So you say I was pushed by this?

GW: I just say I do something about it because that is the issue that concerns me. And concern, because I face something in reality and have to do something about it.

TC: I would agree that inspiration is overused. And overblown. And it implies that art isn’t work. It is hard work; that it just happens without having to work…

GW: And not only that, that art is something higher, almost divine activity.

TC: Divine inspiration.

GW: But it's not. It is part of life. And existence, it is part of existence. You know some people they write and some people dig hole with shovel and other people make drawings or films or whatever. It is just a kind of action in time and space. The action which some individuals can use to deal with reality.

TC: I guess as a book illustrator you would have dealt with fiction before?

GW: Children's fiction a lot. The best paying books were children's books.

TC: But in your art practice, have you worked with a piece of fiction in this way before?

GW: No!

TC: And how did you find the process?

GW: Challenging! I really had to construct some kind of situation to deal with that. I was very much interested in what could happen with me, I wanted to work with you, because I know your work from the past. So I was really very happy that you invited me and I wanted to do something. But it was challenging. The idea was challenging, which is good. But at the same time, because I don't work from imagination and inspiration, because inspiration is imagination…

TC: It's a different kind of working. Because you normally work with what you can see…


TC: The works I've seen of yours in the past, one I really like from a long time ago at Boutwell Draper, I remember you did a performance drawing of birth.

GW: Shared space between people.

TC: And I found that so interesting, but it was all movement. So it must have been challenging working with something that is static
GW: Yes, it almost drew me back to this kind of illustrative practice. That you construct something, it's not what I'm doing, I am documenting human body activity in time and space. What happens with the body and how it actually... because it happens, it does exist, or is there. And here there was just... it almost required from me to leave that and go back to this more conventional way of, or conventional type of art practice.

TC: I had wondered how you might respond. And I had wondered if you might have tried to imagine the movement in the story, but that is not the same as responding to something in front of you, is it?

GW: Yes, because this is what I don't want to do. I don't want to imagine. I want reality because I want reality. I want the proof of reality.

TC: So for you, what was there was the words in the book.

GW: Yes. Because they were almost tangible. Because the thing is something that is material again. So if I take the word, that brings its shapes, but also it has some kind of substance. So it is real. Which means this is the object which lives next to me. And there is this kind of object to object relationship. The energy between this material and this material is there. But I had to find somehow in this project this kind of relationship which I'm interested in. So the word started to be objects instead of being ideas only, they were real. Real things.

TC: That's great! Anything else you want to add?

GW: I think we are okay.

TC: I think we are okay too. It was very interesting. I mean, when I view work, I always think that the viewer needs to make up their own mind and it doesn't really matter what the artist thinks it's about. But doing this project, it has been really interesting actually talking to the artists and seeing what they think. It is such an interesting window into somebody else's mind.

GW: Yes, it is actually interesting. It is interesting to know what the viewer thinks, because you don't often meet the viewer. So the works exists as an object and there is a relationship between the work and everything else. But we, being human beings, are always inclined to overpower the other thing or the other person with our story.

TC: Do you think? Humans want to hear a story, we always want to hear a story. But people can tell the own story, I don't mind if they hear my story, as long as they find a story.

GW: So you release your story and let it be, which is good idea.

TC: I don't really care what people think as long as they actually think. That's all I ever want as an artist; for people to actually put the effort in to think something.

GW: Yes, sometimes when I work or do what I do, this kind of... when I create something, an environment, I just invite people into a tangible new reality.

TC: You are part of the work too, when you are on site.

GW: Yes that is my goal actually, to become part of the work.
Appendix C: Experiment and process documentation

Each of the three series of creative works made as part of this research, Post-Premonitionism 2, Metropolis Experiment, and the Drowned World maps, necessitated some experimentation and the development of new processes.

Post-Premonitionism 2 experiments: 2014-2015

Initial salt solution tests

Experiment aim: The aim of the initial experiments was develop a method of creating tall cones out of salt. The maximum desired height was 1.8 – 2 metres.

Methods: Initially I trialled two methods: casting and growing crystals over a matrix using a super-saturated salt solution (SSSS).

The very first experiments used string and were conducted to establish what solution would work best, pure salt (NaCl), Epsom salts, or a combination of both.

<table>
<thead>
<tr>
<th>100% salt solution.</th>
<th>50% salt/ 50% Epsom salts.</th>
<th>100% Epsom salts.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-6-14.</td>
<td>10-6-14.</td>
<td>10-6-14.</td>
</tr>
</tbody>
</table>

Conclusions: It became clear very quickly that a SSSS of 100% salt worked best, both from an aesthetic and conceptual point of view. And it was more stable. The Epsom salt crystals look spectacular but are very fragile and remain translucent which means the matrix remains visible.

Several casting experiments were also conducted, but casting was quickly abandoned as a construction method due to the complexity of construction needed for large forms, the weight of finished forms and the unsatisfactory colour and surface qualities of the finished forms.

Suggested modifications: Try growing salt crystals on a fabric matrix.
Fabric Cone Experiments: Series 1.0, 2.0, 3.0 and 4.0

Through trial and error standard methods were developed for fabric cone construction and SSSS application. (See notes to follow.)

Notes on series numbers

1.0 series: The SSSS is added by soaking in a basin and/or spraying.

2.0 series: The SSSS is added by dripping down from a bucket with a hole in it, as well as by soaking in a basin and/or spraying etc. as required. The mild steel structures are added AFTER most of the salt surface has been grown, or not at all.

3.0 series: The SSSS is added by dripping down from a bucket with a hole in it, as well as by soaking in a basin and spraying etc. as required. The mild steel structures are added at the beginning of the process.

4.0 series: String is a major part of the matrix. The SSSS is added by dripping down from a bucket with a hole in it, as well as by soaking in a basin and/or spraying etc. as required.

Standard method for application of super saturated salt solution (SSSS)

This method was refined during the cone experiments and was standard by Cone 2.0, the third fabric cone experiment.

Materials and equipment: Salt, water, big pot, stove, wooden spoon, strainers, tissues, buckets, basins, big shelving units to support cones and buckets, spray bottle and watering can as required.

method: SSSS is created by boiling salt in water. Skim scum off the surface with strainers and/or absorb with tissues. Keep adding salt until the solution is super-saturated and won’t hold any more salt. When it is super-saturated, crystals will form very quickly when it is removed from the heat. Cool and decant when cold. Retain excess salt for the next batch.

SSSS is applied to cones primarily by dripping from a bucket with a hole in it placed above the string from which the cone is suspended. SSSS may also be applied by spray bottle and watering can as required.

This method may be combined with submerging the base of the cone in a basin of SSSS. Sometimes the cone is suspended above the basin. Either way a basin is required to catch the dripping SSSS.

Most (if not all) of the SSSS is recycled and re applied to the cone (depending on how rusty the cone in progress is).

The standard amount of SSSS applied each time is 8 litres, but some cones require 10L to keep base submerged.

Most cones require SSSS application every other day for about 2 months.

Each shelving unit holds 4-5 cones.
Add salt to boiling water until the solution becomes super-saturated.

Each batch makes approx. 6-8L of SSSS.

When the solution is super-saturated crystals will form very quickly when it cools.

Shelving structure set up with plastic.

Cones soaking in basins of SSSS. (Some cones are started dry).

Cones suspended by strings. Buckets placed above strings.

8L of SSSS runs down the string.

Lots of buckets to wash.

Tending the salt garden.
Standard method of fabric cone construction

This method was refined during cone experiments and was standard by Cone 2.4.

**Materials:** White cotton fabric, cotton thread, cotton string, galvanised metal rings.

**Method:** Machine sewing.

Adjust pattern and ring size depending on desired finished cone size.

Cones pictured are 1500m H x 300mm base dia. each. Two cones are being constructed simultaneously.

All photos 24-10-14.

<table>
<thead>
<tr>
<th>Fold fabric. Cut pattern along fold. Cone only has one seam.</th>
<th>Tie a knot in doubled string. Place knot above point. Pin string coil to inside of cone.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pin side seam, right sides together, string inside.</td>
<td>Machine stitch side seam. Take care to avoid string. Stitch across string at point.</td>
</tr>
</tbody>
</table>
Turn up bottom hem 25mm. Press.  
Pin galvanised metal ring into hem.

Machine stich metal ring into hem. Seam is in the middle of hem.  
Remove pin holding coil of string in place.

Turn cone by pulling string.  
All done! Both the knot and the hem are now on the inside.
Experiment: Cone 1.0  
Start date: 9-5-14  
End date: 3-6-14

**Experiment aim:** The aim of the experiment was to get SSSS to saturate entire cone by soaking base in a basin of SSSS and spraying on SSSS and to see if it would ‘wick’ up the string. The former was a failure and the latter a limited success.

**Materials:** cotton calico (un-bleached), cotton thread, cotton string, SSSS, wooden dowel, plastic flowerpot saucer (approx. 350mm dia).

**Cone construction method:** Machine sewed calico cone, hand-stitched calico base over plastic flowerpot saucer with wooden mandrel attached by a press-fit. Hand-stitched string to outside.

**Size:** 1100mm H x 350mm dia.

<table>
<thead>
<tr>
<th>Date</th>
<th>Actions</th>
<th>Observations/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-5-14</td>
<td>Soaked cone and string in SSSS by pouring. Left sitting in a basin of SSSS.</td>
<td>Floating and tilting a bit.</td>
</tr>
<tr>
<td>11-5-14</td>
<td>Applied SSSS with spray bottle.</td>
<td></td>
</tr>
<tr>
<td>14 &amp; 16-5-14</td>
<td>“</td>
<td></td>
</tr>
<tr>
<td>20-5-14</td>
<td>“</td>
<td></td>
</tr>
<tr>
<td>24-5-14</td>
<td>“</td>
<td></td>
</tr>
<tr>
<td>27-5-14 to 29-5-14</td>
<td>“</td>
<td>Applied daily.</td>
</tr>
<tr>
<td>1-6-14</td>
<td>“</td>
<td></td>
</tr>
<tr>
<td>3-6-14</td>
<td>Removed from basin of SSSS.</td>
<td></td>
</tr>
</tbody>
</table>

**Total SSSS applications:** 11.

**Conclusions:** Deposition of salt is much heavier just above the ‘tide-line’ of SSSS in the basin. Overall deposition not even enough, the SSSS only travelled up the cone about 300mm from base. Colour difference between un-bleached calico and white salt crystals is too pronounced. Finished cone is quite stiff and may not need internal support.

**Suggested modifications:** Try white fabric. Try sprayed application of SSSS only. Make a support system that is removable and can be used again.
| Salt is thickest 100-150mm above tide-line. 1-6-14. | Strong contrast between salt and calico. 10-6-14. | Heavy crystal deposition on string. 10-6-14. |
Experiment: Casting tests  Start date: 27-5-14   End date: 17-6-14

Experiment aim: To test the colour, texture and strength of Julia Davis’s cast salt recipe.

Recipe: This recipe was developed by Julia Davis during her master degree research at SCA (finished 2005) and very kindly shared with me. She has requested that the details of her recipe remain secret.

Weigh ingredients, mix 2 mystery salts together with water to make a paste the consistency of runny yogurt. Add to salt and mix by hand until all the salt crystals are coated. Pack firmly into mould. Let set for 5 days.

#1 sprayed with SSSS. Form has a pinkish colour. 27-5-14.

#2 wrapped in cloth and sprayed with SSSS. 27-5-14.

#3 wrapped in tissue and sprayed with SSSS. 27-5-14.

#1. 1-6-14.

#4 left dry sitting in salt. 27-5-14.

#4, This one is whitest. 1-6-14.
<table>
<thead>
<tr>
<th>Experiment</th>
<th>Actions</th>
<th>Observations/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>Cast shape sprayed with SSSS, 27-5-14, 28-5-14, 29-5-14, 30-5-14, 1-6-14, 3-6-14, 5-6-14, 6-6-14. Left to dry.</td>
<td>The sprayed SSSS seems to have no effect on colour. It remains very pink. (When re-examined on 6-11-14 it was much whiter, but not actually white.)</td>
</tr>
<tr>
<td>#2</td>
<td>Cast shape wrapped in thin white cotton fabric and sprayed with SSSS, 27-5-14, 28-5-14, 29-5-14, 30-5-14, 1-6-14, 3-6-14, 5-6-14, 6-6-14, 7-6-14, 10-6-14, 13-6-14, 17-6-14. Left to dry.</td>
<td>Fabric becomes stiff, but no real obvious advantage to having the cast salt underneath.</td>
</tr>
<tr>
<td>#3</td>
<td>Cast shape wrapped in tissue and sprayed with SSSS, 27-5-14, 28-5-14, 29-5-14, 30-5-14, 1-6-14, 3-6-14, 5-6-14, 6-6-14, 7-6-14, 10-6-14, 13-6-14, 17-6-14. Left to dry.</td>
<td>Tissue remains quite fragile.</td>
</tr>
<tr>
<td>#4</td>
<td>Cast shape left in a mound of salt crystals until 17-6-14.</td>
<td>This method produced the whitest result. (When re-examined on 6-11-14 it was much whiter, but not actually white.)</td>
</tr>
</tbody>
</table>

**Conclusions:** The recipe is very strong but the colour is not white enough for my purposes. The shapes have continued to get whiter over time, but not nearly as white as the fabric and SSSS method. The cast forms also lack the glittery crystal look which has been achieved with the fabric and SSSS method. The strength of the cast forms is appealing, but this advantage is not enough to outweigh the disadvantages of the extra weight, poor colour and the complexity involved in casting large forms.

**Suggested modifications:** Try fabric cones with SSSS. Abandon Julia’s casting method. Try casting with glue to achieve a whiter colour.
Experiment: Cone 1.1  Start date: 27-5-14  End date: 17-6-14

Experiment aim: The aim of the experiment was to test the effect of using white fabric and to test spraying SSSS only as an application method as well as trial a removable and reusable support system. The white fabric was a success. The other tests failed.

Materials: White cotton muslin (thin), cotton thread, wooden dowel, MDF disc approx. 400mm dia, brass nuts and bolts, SSSS.

Cone construction method: Machined sewed cone, cut tabs into base, screwed pointed dowel to centre of MDF disc, bolted fabric cone to MDF disc

Size: 1100mm H x 350mm dia.

<table>
<thead>
<tr>
<th>Date</th>
<th>Actions</th>
<th>Observations/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>27-5-14</td>
<td>Applied SSSS with spray bottle</td>
<td>Cone NOT left sitting in liquid.</td>
</tr>
<tr>
<td>28-5-14 to</td>
<td>&quot;</td>
<td>Applied daily for 3 days.</td>
</tr>
<tr>
<td>30-5-14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-6-14 to</td>
<td>&quot;</td>
<td>Applied every other day.</td>
</tr>
<tr>
<td>5-6-14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6, 7, 10 &amp;</td>
<td>&quot;</td>
<td></td>
</tr>
<tr>
<td>13-6-14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17-6-14</td>
<td>Ended</td>
<td>Starting to become stiff.</td>
</tr>
</tbody>
</table>

Cone is bolted to MDF base.  27-5-14.

The first soaking.  27-5-14.

Crystal deposition too even.  1-6-14.

Conclusions: White colour is much improved with white fabric. Deposition of salt is too uniform. Cone stuck to the internal mandrel, was not easy to remove.

Suggested modifications: Try dripping SSSS on to cones from the top via a bucket with a hole in it, as well as sitting in a basin of SSSS. Try suspending the cones and keeping the shape with a metal ring rather than an internal support system.
Experiment: Cone 2.0  
Start date: 5-6-14  
End date: 13-10-14

**Experiment aim:** The aim of the experiment was to test the effect of dripping SSSS through a hole in a bucket and to test the effect of adding the mild steel structures to the salty cone. The former was a success and the later a qualified success.

**Materials:** White cotton drill, cotton thread, 300mm dia. galvanised metal ring, cotton string, mild steel structures, rust solution, SSSS.

**Cone construction method:** Machine sewed cone, hand-stitched metal ring in approx. 25mm hem (hem on outside).

**Size:** 2000mm H x 300mm dia.

<table>
<thead>
<tr>
<th>Date</th>
<th>Actions</th>
<th>Observations/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-6-14</td>
<td>Soaked cone in basin of SSSS, drained, tied string to outside tip of cone, suspended from top of shelf. 8L SSSS added to bucket with 3 holes.</td>
<td>Bottom of cone resting in basin (basin balancing on inverted basin).</td>
</tr>
<tr>
<td>6-6-14</td>
<td>Bucket filled with 8L recycled SSSS.</td>
<td></td>
</tr>
<tr>
<td>7-6-14</td>
<td>&quot;</td>
<td>2 holes plugged with gaffer tape.</td>
</tr>
<tr>
<td>10 &amp; 13-6-14</td>
<td>&quot;</td>
<td></td>
</tr>
<tr>
<td>17-6-14</td>
<td>&quot;</td>
<td>Starting to get noticeable crystal deposition from the bottom up, to just under half way.</td>
</tr>
<tr>
<td>19, 23 &amp; 30-6-14</td>
<td>&quot;</td>
<td></td>
</tr>
<tr>
<td>2 to 7-7-14</td>
<td>&quot;</td>
<td>Applied daily.</td>
</tr>
<tr>
<td>9 to 11-7-14</td>
<td>&quot;</td>
<td>Applied daily.</td>
</tr>
<tr>
<td>12-7-14</td>
<td>Took bottom out of basin. Bucket filled with 8L recycled SSSS + 4L added to middle via watering can.</td>
<td>Top and bottom looking good, middle looking a bit thin.</td>
</tr>
<tr>
<td>14 &amp; 16-7-19</td>
<td>Bucket filled with 8L recycled SSSS + 4L added to middle via watering can.</td>
<td>Applied every other day.</td>
</tr>
<tr>
<td>18 &amp; 20-7-14</td>
<td>Bucket filled with 8L recycled SSSS.</td>
<td>Applied every other day over 3 days.</td>
</tr>
<tr>
<td>21-7-14</td>
<td>Bucket filled with 8L recycled SSSS + sprayed bald patches in the middle.</td>
<td></td>
</tr>
<tr>
<td>23-7-14</td>
<td>Bucket filled with 8L recycled SSSS.</td>
<td>Deposition is starting to look more even.</td>
</tr>
<tr>
<td>25-7-14 to</td>
<td>&quot;</td>
<td>Applied daily.</td>
</tr>
<tr>
<td>Date</td>
<td>Description</td>
<td>Notes</td>
</tr>
<tr>
<td>------------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>1-8-14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-8-14</td>
<td>Bucket filled with 4L recycled SSSS + 4L to middle via watering can.</td>
<td>Applied daily.</td>
</tr>
<tr>
<td>3 &amp; 4-8-13</td>
<td>Bucket filled with 8L recycled SSSS.</td>
<td>Deposition is thickest at the top and just above original tide line.</td>
</tr>
<tr>
<td>6-8-13</td>
<td>Bucket filled with 8L recycled SSSS.</td>
<td></td>
</tr>
<tr>
<td>8-8-14</td>
<td>Added steel structures to the outside by connecting them to each other with wire.</td>
<td>Looks OK, but too artificial. The white is great.</td>
</tr>
<tr>
<td>9-8-14</td>
<td>Sprayed cone with clean water then used a syringe to add concentrated rust/water to contact points.</td>
<td>AAAAARRGGGH! Total disaster! The rust spread making large horrible stains!</td>
</tr>
</tbody>
</table>

**SSSS applications: 38.**

First sculpture test. 8-8-14.  Artifice is obvious. 8-8-14.  'Fake' rust is ugly. 9-8-14.


10-8-14  Removed steel structures and string, set up on table, on plastic, in a pile of salt around the base and up into the deep crevices.  Testing to see if the moisture the salt attracts will compromise the structural integrity of the cone (which at this point is remarkably stiff).

20-9-14  Removed cone from pile of salt. Re-suspended cone from shelf by tying string around tip. Added 4L by bucket from the top and 2L via watering can while scrubbing rust stains with a brush.  After 6 weeks the structural integrity seems 100% OK! Rust stains noticeably paler after scrubbing.
<table>
<thead>
<tr>
<th>Date</th>
<th>Activity Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>24-9-14</td>
<td>Re-attached steel structures as before, but lower down. Bucket filled with 8L clean SSSS.</td>
<td></td>
</tr>
<tr>
<td>26-9-14 to 12-10-14</td>
<td>Bucket filled with 6L recycled and 2L clean SSSS.</td>
<td>Applied every other day over 8 days. New rust stains starting to develop.</td>
</tr>
<tr>
<td>13-10-14</td>
<td>“</td>
<td><strong>Total SSSS applications</strong>: 49.</td>
</tr>
</tbody>
</table>

Steel structures re-attached. 24-9-14.

Real rust starting. 6-10-14.

Real and fake rust on the last day. 13-10-14.

**Conclusions**: Overall deposition of salt crystals is good. The cone is strong and stiff. It was a success until adding the ‘fake’ rust! The scrubbing and reapplication of salt rescued it sufficiently to be usable. Shape is a bit too pointy.

**Suggested modifications**: Try placing cone in a much deeper basin of SSSS to see if the heavy deposition of crystals above the tideline can be made to go higher. Try adding steel structures from the beginning by stitching them into the fabric. Make a new cone pattern that isn’t quite so steep (wider at base).
Experiment: cast cones

Experiment aim: The aim of the experiments was to test casting 1000mm high cones with glue. The tests failed.

Materials: salt, PVA glue.

Cone construction method: Cone mould was made with black builder’s film, tie-wire or bucket and gaffer tape.

Size: 1000mm H x 250mm dia. Each.

Experiment: cast cone 1  Start date: 10-6-14  End date: 2-7-14

<table>
<thead>
<tr>
<th>Date</th>
<th>Actions</th>
<th>Observations/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-6-14</td>
<td>Salt mixed with PVA glue until all crystals were coated. Packed into cone mould and suspended above basin.</td>
<td></td>
</tr>
<tr>
<td>17-6-14</td>
<td></td>
<td>Still oozing liquid. Surface seems very crumbly. There may not be enough glue.</td>
</tr>
<tr>
<td>2-7-14</td>
<td>Inverted cone out of mould.</td>
<td>FAIL! Cone completely disintegrated.</td>
</tr>
</tbody>
</table>

Conclusions: Complete failure. It seems possible that there wasn’t enough glue, or it wasn’t allowed to set long enough, or both?

Suggested modifications: Try more glue. Try leaving for longer.
**Experiment: cast cone 2**  
**Start date: 4-7-14**  
**End date: 3-8-14**

New mould held together with pegs at the top.  
5-7-14.

Suspended by bucket handle.  
5-7-14.

More glue in the mix this time.  
5-7-14.

<table>
<thead>
<tr>
<th>Date</th>
<th>Actions</th>
<th>Observations/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-7-14</td>
<td>Salt mixed with more PVA glue until all crystals were coated. Packed into cone mould and suspended above basin.</td>
<td></td>
</tr>
<tr>
<td>23-7-14</td>
<td>Still oozing liquid. 250mm from the point still not set. Not sure it will ever set? May not be compacted enough?</td>
<td></td>
</tr>
<tr>
<td>3-8-14</td>
<td>Inverted cone out of mould.</td>
<td>FAIL! Cone completely disintegrated.</td>
</tr>
</tbody>
</table>

**Conclusions:** Complete failure. Much, much more glue needed? Which would make it very expensive on any kind of large scale.

**Suggested modifications:** Abandon this method. The result is too different from the SSSS and fabric cones even if it worked.
Experiment: Cone 2.1  
Start date: 2-7-14  
End date: 13-10-14

Experiment aim: The aim of the experiment was to test the effect of submerging the cone in 65L of SSSS. The aim was to achieve a heavy deposition of salt higher up the cone and to test the effect of adding the mild steel structures mid-way through the process. The former was a qualified success and the latter a success.

Materials: White cotton drill, 350mm dia. galvanised metal ring, cotton string, SSSS, mild steel structures, salt crystals.

Cone construction method: Machine sewed cone using new, wider pattern in white cotton drill. String sewed at point. Cone turned. Made salt ‘sand bag’ weights at base by clipping fabric 90-100mm deep and stitching up pockets. Filled with salt and machine stitched closed. 350mm galvanised metal ring hand stitched to outside just above weights, to maintain shape.

Size: 1800mm H x 350mm dia.

Making salt weights. 30-6-14.  |  Stitching weights. 30-6-14.  |  Soaking cone in SSSS. 2-7-14.

350mm ring added to maintain shape. 3-7-14.  |  Cone 2.0 & Cone 2.1. 5-7-14.  |  Deposition is heaviest approx. 100mm above tide-line. 8-8-14.
<table>
<thead>
<tr>
<th>Date</th>
<th>Actions</th>
<th>Observations/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-7-14</td>
<td>Bucket filled with 8L clean SSSS. 9L added to bin.</td>
<td>SSSS is just covering the metal ring.</td>
</tr>
<tr>
<td>4-7-14</td>
<td>Bucket filled with 8L clean SSSS. 9L added to bin.</td>
<td></td>
</tr>
<tr>
<td>5-7-14</td>
<td>Bucket filled with 8L clean SSSS. 2L added to bin.</td>
<td></td>
</tr>
<tr>
<td>6-7-14</td>
<td>Bucket filled with 8L clean SSSS.</td>
<td></td>
</tr>
<tr>
<td>7-7-14</td>
<td>Bucket filled with 8L clean SSSS. 4L added to bin.</td>
<td></td>
</tr>
<tr>
<td>9-7-14</td>
<td>Bucket filled with 8L clean SSSS. 8L added to bin.</td>
<td></td>
</tr>
<tr>
<td>10-7-14</td>
<td>Bucket filled with 8L clean SSSS. 10L added to bin.</td>
<td></td>
</tr>
<tr>
<td>11, 12, 14, 16 &amp; 18-7-14</td>
<td>Bucket filled with 8L recycled SSSS siphoned from bin.</td>
<td></td>
</tr>
<tr>
<td>20-7-14</td>
<td>Bucket filled with 8L recycled SSSS siphoned from bin. 8L removed from bin.</td>
<td>Tideline is now approx. 100mm from top lip of bin.</td>
</tr>
<tr>
<td>21-7-14 to 31-7-14</td>
<td>Bucket filled with 8L recycled SSSS siphoned from bin.</td>
<td>Applied every other day.</td>
</tr>
<tr>
<td>2-8-14</td>
<td>Bucket filled with 8L recycled SSSS siphoned from bin.</td>
<td>Deposition is starting to appear heavier just about tideline.</td>
</tr>
<tr>
<td>5, 6, 8, 10 &amp; 13-8-14</td>
<td>Bucket filled with 8L recycled SSSS siphoned from bin.</td>
<td></td>
</tr>
<tr>
<td>15-8-14</td>
<td>Bucket filled with 8L recycled SSSS siphoned from bin. Removed most of the SSSS from the bin.</td>
<td>Tideline now only approx. 100mm deep</td>
</tr>
<tr>
<td>17-8-14</td>
<td>Removed cone from bin. Some salt cracked off because it collapsed. Washed damaged areas with 12L SSSS to remove loose crystals. Re-suspended cone above shallow basin.</td>
<td>The crystals that were submerged in the deep SSSS are very even and very sparkly.</td>
</tr>
</tbody>
</table>

Removing cone from large bin damaged the salt layer. 17-8-14.

Crystals which were submerged are very sparkly. 17-8-14.

Cone is now suspended, not soaking in SSSS. 17-8-14.
Steel structures added to bright white cone.  
14-9-14.

Rust starting to appear.  
18-9-14.

Last day of the experiment.  
13-10-14.

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>19, 21, 22, 23, 24 &amp; 25-8-14</td>
<td>Bucket filled with 8L recycled SSSS.</td>
<td></td>
</tr>
<tr>
<td>27-8-14</td>
<td>Bucket filled with 8L recycled SSSS. Cut sand bags off the base.</td>
<td>Decided that the weights might compromise finished strength.</td>
</tr>
<tr>
<td>29-8-14 to 9-9-14</td>
<td>Bucket filled with 8L recycled SSSS.</td>
<td>Applied every other day.</td>
</tr>
<tr>
<td>14-9-14</td>
<td>Wire structures added to outside by wiring them to each other. Bucket filled with 8L recycled SSSS.</td>
<td>Hoping to generate nice rust drips while maintaining bright white cone.</td>
</tr>
<tr>
<td>16 &amp; 18-9-14</td>
<td>Bucket filled with 4L clean SSSS.</td>
<td>Old SSSS discarded.</td>
</tr>
<tr>
<td>20 &amp; 22-9-14</td>
<td>Bucket filled with 8L recycled SSSS.</td>
<td></td>
</tr>
<tr>
<td>24-9-14 to 13-10-14</td>
<td>Bucket filled with 6L recycled + 2L clean SSSS.</td>
<td>Applied every other day.</td>
</tr>
</tbody>
</table>

SSSS applications to sculptures: 15.  
Total SSSS applications: 54.

Conclusions: The effect of being submerged in 65L of SSSS is not really worth the extra drama. Adding dripping SSSS once the steel structures are attached does produce authentic looking rust drips, but not as quickly, or as intensely, as anticipated. However doing it this way does preserve the structural integrity of the steel structures for longer. Overall the cone has stayed whiter than the experiments when the structures were added from the very beginning.

Suggested modifications: It may be worth trying adding the sculpture structures slightly earlier, or adding a few more applications of SSSS once they have been attached. It may be worth producing some cones by this method and some by the 3.0 series method, for variety.
Experiment: Cone 3.0  Start date: 9-7-14  End date: 13-10-14

**Experiment aim:** The aim of the experiment was to test the effect of submerging almost 50% of the cone in SSSS. The other aim test the effect of stitching the mild steel structures directly on to the fabric. The former was a failure and the latter a success.

**Materials:** Thin white cotton sheeting, cotton thread, 300mm dia. galvanised metal ring, cotton string, SSSS, mild steel structures, salt crystals.

**Cone construction method:** Cut cone at approx. 1700mm H in thin white cotton sheeting. Machine sewed. Tied knot in string and sewed doubled string (knot on outside) at the point. Cone turned. Made salt ‘sand bags’ as in 2.1. Machine sewed 300mm ring into hem on outside.

**Size:** 1500 H x 3000mm dia.

<table>
<thead>
<tr>
<th>Date</th>
<th>Actions</th>
<th>Observations/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-7-14</td>
<td>Soaked cone in SSSS. Then suspended below bucket by string in narrow 65L bin.</td>
<td>Once full the cone will be nearly 50% submerged. Hoping this will promote thick salt deposition over the entire cone.</td>
</tr>
<tr>
<td>10-7-14 to 14-7-14</td>
<td>Bucket filled with 8L clean SSSS. SSSS also added to bin.</td>
<td>Applied daily. Bin filled by 14-7-14. Tideline 100mm from top edge.</td>
</tr>
<tr>
<td>16, 17 &amp; 20-7-14</td>
<td>Bucket filled with 8L recycled SSSS siphoned from bin.</td>
<td></td>
</tr>
<tr>
<td>21-7-14 to 31-7-14</td>
<td>Bucket filled with 8L recycled SSSS siphoned from bin.</td>
<td>Applied every other day.</td>
</tr>
<tr>
<td>2-8-14</td>
<td>Bucket filled with 8L recycled SSSS siphoned from bin. Tapped off loose/excess salt above tideline.</td>
<td>Salt deposition is noticeably heavier than on 2.1 (in the larger bin) which was started a week earlier, but it is NOT stable.</td>
</tr>
<tr>
<td>Date</td>
<td>Description</td>
<td>Notes</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>3-8-14</td>
<td>1500mm cone is nearly 50% submerged in narrow 65L bin.</td>
<td>Salt deposition is heavy but not stable.</td>
</tr>
<tr>
<td>3-8-14</td>
<td>After washing off most of the salt the steel structures are stitched on.</td>
<td></td>
</tr>
<tr>
<td>3-8-14</td>
<td>Removed most of the SSSS from the bin, approx. 200-250mm depth remaining.</td>
<td>Salt seems more stable where it was drier. It seems likely that the problem is that it never got to dry out bwn applications, being 50% submerged.</td>
</tr>
<tr>
<td>5-8-14</td>
<td>Untied top, 'washed' and scrubbed entire cone in SSSS to remove loose salt. Re-suspended above shallow basin.</td>
<td></td>
</tr>
<tr>
<td>6 &amp; 8-8-14</td>
<td>Bucket filled with 8L recycled SSSS</td>
<td></td>
</tr>
<tr>
<td>9-8-14</td>
<td>Hand stitched 7 steel structures the outside of the cone. Bucket filled with 8L recycled SSSS.</td>
<td>Following the 2.0 fake rust disaster, hoping the salt will grow around the structures and make nice rust marks.</td>
</tr>
<tr>
<td>10, 11, 13, &amp; 15-8-14</td>
<td>Bucket filled with 8L recycled SSSS.</td>
<td>Rust drips appeared almost instantly.</td>
</tr>
<tr>
<td>18-8-14</td>
<td>Rust stains formed quickly.</td>
<td></td>
</tr>
<tr>
<td>14-9-14</td>
<td>L-R: cones 3.1, 2.1 and 3.0.</td>
<td></td>
</tr>
<tr>
<td>13-10-14</td>
<td>By the end, salt has formed over the rust stains.</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Action Description</td>
<td>Notes</td>
</tr>
<tr>
<td>------------</td>
<td>---------------------------------------------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>17-8-14</td>
<td>Bucket filled with 8L clean SSSS.</td>
<td>SSSS quite discoloured by rust after 4 applications.</td>
</tr>
<tr>
<td>19, 21, 22 &amp; 23-8-14</td>
<td>Bucket filled with 8L recycled SSSS.</td>
<td></td>
</tr>
<tr>
<td>24-8-14</td>
<td>Bucket filled with 8L clean SSSS.</td>
<td></td>
</tr>
<tr>
<td>25-7-14</td>
<td>Bucket filled with 8L recycled SSSS.</td>
<td></td>
</tr>
<tr>
<td>27-8-14</td>
<td>Bucket filled with 8L recycled SSSS. Cut off sand bags.</td>
<td>Sand bags seem too heavy for the thinness of the cone.</td>
</tr>
<tr>
<td>29-8-14</td>
<td>Bucket filled with 8L clean SSSS.</td>
<td></td>
</tr>
<tr>
<td>3-9-14</td>
<td>Bucket filled with 8L recycled SSSS.</td>
<td></td>
</tr>
<tr>
<td>5-9-14</td>
<td>Bucket filled with 8L recycled SSSS + 2L clean.</td>
<td></td>
</tr>
<tr>
<td>7-9-14</td>
<td>Bucket filled with 8L recycled SSSS+ 1L clean.</td>
<td></td>
</tr>
<tr>
<td>9-9-14</td>
<td>Stopped using bucket and started spraying on SSSS below structures only.</td>
<td>The whole cone is becoming discoloured. Hoping spraying will whiten the bulk of the cone.</td>
</tr>
<tr>
<td>10, 14, 16, 18 &amp; 20-9-14</td>
<td>Sprayed on SSSS below structures only.</td>
<td></td>
</tr>
<tr>
<td>22-9-14</td>
<td>Started bucket again, filled with 8L clean SSSS.</td>
<td>Salt deposition needs to be heavier</td>
</tr>
<tr>
<td>24-9-14 to 30-9-14</td>
<td>Bucket filled with 6L recycled SSSS+ 2L clean.</td>
<td>Applied every other day</td>
</tr>
<tr>
<td>2-10-14</td>
<td>Stopped bucket again, Added 8L to middle via watering can. Re-set up basin so bottom is submerged.</td>
<td>Steel structures are starting to disintegrate. Salt has formed on top of rust stains.</td>
</tr>
<tr>
<td>4-10-14 to 10-10-14</td>
<td>Sprayed on SSSS below structures only.</td>
<td></td>
</tr>
<tr>
<td>12-10-14</td>
<td>Sprayed on SSSS below structures only. Re-suspended above basin</td>
<td></td>
</tr>
<tr>
<td>13-10-14</td>
<td>Sprayed on SSSS below structures only.</td>
<td></td>
</tr>
</tbody>
</table>

**Total SSSS applications: 51.**

**Conclusions:** Success wrestled from the brink of disaster! Being nearly 50% submerged caused the deposition of salt to occur quickly, but was not stable. It seems likely that time (and space) for evaporation is key to forming a stable layer of salt. Having the steel structures stitched directly to the fabric resulted in really nice, authentic rust drips. Submerging the cones in deep SSSS does NOT seem like a good idea.

**Suggested modifications:** Try stitching steel structures to the cone from the very beginning. Try piercing the fabric so the structures aren’t attached just to the outside. Try hemming ring on the inside of the cone.
Experiment: Cone 4.0  Start date: 10-7-14  End date: 7-9-14

Experiment aim: To test the effect of creating a macramé string cone. This was a success.

Materials: cotton string, 250mm dia. galvanised metal ring, SSSS.

Cone construction method: Sixteen doubled strands, doubled length approx. 4 metres each, knotted to 250mm metal ring. Ring suspended over inverted cone 1.1 to act as a mandrel. Each string separated by coiling around a clothes peg. Macramé in a random pattern, gradually removing strings (by tying knots and cutting) to taper towards tip until only 4 remain. Remove from mandrel (it collapsed quite a bit). Soaked in SSSS and suspended by remaining 4 strings under bucket of SSSS.

Size: finished size approx. 900mm (1300mm including additional string point) H x 250mm dia.

<table>
<thead>
<tr>
<th>Date</th>
<th>Actions</th>
<th>Observations/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-7-14</td>
<td>Soaked cone and string in SSSS. Bucket filled with 8L clean SSSS. Base left in basin of SSSS.</td>
<td>SSSS in basin approx. 100mm deep</td>
</tr>
<tr>
<td>14-7-14 &amp;</td>
<td>8L of SSSS added by bucket and watering can.</td>
<td>Applied every other day.</td>
</tr>
<tr>
<td>16-7-14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-7-14</td>
<td></td>
<td>Crystals starting to form about 75mm above tide line for about 150mm.</td>
</tr>
<tr>
<td>20-7-14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-7-14</td>
<td>8L of SSSS added by bucket and watering can. Removed most of SSSS so base is only covered by approx. 20mm.</td>
<td></td>
</tr>
<tr>
<td>23-7-14</td>
<td></td>
<td>Crystals are already starting to develop near new lower tideline.</td>
</tr>
<tr>
<td>25-7-14 to</td>
<td></td>
<td>Applied daily.</td>
</tr>
<tr>
<td>31-7-14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Actions</td>
<td>Observations/Comments</td>
</tr>
<tr>
<td>-----------</td>
<td>----------------------------------------------</td>
<td>---------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1-8-14</td>
<td>“</td>
<td>Has begun to thicken to a H of approx. 400mm from base. Still thickest where crystals first formed and sparser nearest the tideline, approx. 30mm from metal ring.</td>
</tr>
<tr>
<td>2-8-14</td>
<td>“</td>
<td></td>
</tr>
<tr>
<td>3-8-14</td>
<td>8L of SSSS added by bucket and watering can.</td>
<td>Lowered basin support so the entire cone is suspended above SSSS. Crystals on submerged area are quite thick and sq. crystals have formed on metal ring.</td>
</tr>
<tr>
<td>4-8-14 to</td>
<td>“</td>
<td>Applied daily.</td>
</tr>
<tr>
<td>11-8-14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-8-14</td>
<td>“</td>
<td>Applied every other day.</td>
</tr>
<tr>
<td>to 23-8-14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24-8-14</td>
<td>“</td>
<td>Applied every other day</td>
</tr>
<tr>
<td>25-8-14 to</td>
<td>“</td>
<td>Applied every other day</td>
</tr>
<tr>
<td>29-8-14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-9-14 to</td>
<td>“</td>
<td>Applied every other day</td>
</tr>
<tr>
<td>7-9-14</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total SSSS applications: 39.**

Crystal deposition is heaviest near the base. 10-9-14.

Gaps in macramé pattern closed more than anticipated in upper half. 10-9-14.

The finished string cone ‘reads’ much darker than the fabric cones. 31-10-14.

**Conclusions:** Deposition of salt is much heavier on bottom half. Because of the uneven nature of the string structure the SSSS did not flow as evenly as on a fabric cone and some areas are a bit ‘balder’ than others. Applying SSSS via watering can to problem areas helped to alleviate this. Gaps between the string closed up much more than anticipated. Because of the gaps the finished string cone ‘reads’ much darker than the fabric cones.

**Suggested modifications:** Try string cone over a fabric cone.
Experiment: Cone 2.2 / 2.3  Start date: 25-7-14  End date: 13-10-14

Experiment aim: The aim of the experiments was to see what effect evaporation had on the process and to see if there is any advantage to daily application. This was a success.

Materials: bleached cotton calico, cotton thread, cotton string, 2 x 260mm dia galvanised metal rings, SSSS.

Cone construction method: Standard method (but the hem is on the outside).

Size: 1200mm H x 260mm dia. Each.

Experiment: Cone 2.2

<table>
<thead>
<tr>
<th>Date</th>
<th>Actions</th>
<th>Observations/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-7-14 to 11-8-14</td>
<td>Soaked cone and string in SSSS. 8L SSSS applied by bucket. Left sitting in a basin of SSSS, covering base by approx. 20mm.</td>
<td>Applied daily.</td>
</tr>
</tbody>
</table>

Total SSSS applications: 18.
Experiment: Cone 2.3

Date | Actions | Observations/Comments
--- | --- | ---
25-7-14 to 10-8-14 | Soaked cone and string in SSSS. 8L SSSS applied by bucket. Left sitting in a basin of SSSS, covering base by approx. 20mm. | Applied every other day.

Total SSSS applications: 9.

Conclusions: There was virtually no difference in crystal deposition on the bottom half of the cones. Slightly heavier deposition near the top of the daily cone (2.2). There is no real advantage to daily application when the bottom is submerged, at least not at this height.

Experiment: Cone 2.2 / 2.3

Date | Actions | Observations/Comments
--- | --- | ---
13-8-14 to 15-8-14 | 8L SSSS applied by bucket. | Applied every other day.
17-8-14 | Now suspended above basin. 8L SSSS applied by bucket. | 
21-8-14 | 8L SSSS applied by bucket. | Salt deposition is starting to get a bit powdery (growing too fast).
22-8-14 | Washed with 4L SSSS to remove powdery layer. 8L SSSS applied by bucket. | 
23-8-14 to 25-8-14 | 8L SSSS applied by bucket. | Applied daily.
27-8-14 to 29-14-14 | " | Applied every other day.
1-9-14 to 3-9-14 | " | Applied every other day.
<table>
<thead>
<tr>
<th>Date Range</th>
<th>Application</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-9-14</td>
<td>8L clean SSSS applied by bucket.</td>
<td>Deposition is now as heavy as on the larger cones at 2 months.</td>
</tr>
<tr>
<td>7-9-14 to 9-9-14</td>
<td>8L SSSS applied by bucket.</td>
<td></td>
</tr>
<tr>
<td>14-9-14 to 28-9-14</td>
<td>“</td>
<td>Applied every other day</td>
</tr>
<tr>
<td>30-9-14 to 12-10-14</td>
<td>8L SSSS applied by bucket.</td>
<td>Applied to Cone 2.3 only from now on.</td>
</tr>
<tr>
<td>13-10-14</td>
<td>“</td>
<td></td>
</tr>
</tbody>
</table>

**Cone 2.2**

Total SSSS applications: 42.

**Cone 2.3**

Total SSSS applications: 41.

**Conclusions:** When cones of this height are left soaking in SSSS for too long the crystals grow too quickly and become powdery and unstable. Time and evaporation definitely play a role in crystal deposition. Overall, Cone 2.3 has a heavier layer of salt even though the total number of SSSS applied was one less than on Cone 2.2.

**Suggested modifications:** Cones of less than 1500mm in height should only be left with bases covered in SSSS for a week?
Experiment: Cone 2.4 / 2.5  Start date: 27-7-14  End date: 13-10-14

Experiment Aim: The aim of the experiment was to see what effect evaporation had on the process and to see if there is any advantage to daily application. Also to see if the crystal deposition would be too even without base soaking in the basin of SSSS. This was a success.

Materials: bleached cotton calico, cotton thread, cotton string, 2 x 220mm dia galvanised metal rings, SSSS.

Cone construction method: Standard method except, a ring was deliberately used that was too small This resulted in a pleat over seam to give some shape and cover seam.

Size: 1100mm H x 200mm dia. Each.

Experiment: Cone 2.2

<table>
<thead>
<tr>
<th>Date</th>
<th>Actions</th>
<th>Observations/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>27-7-14 to</td>
<td>8L SSSS applied by bucket. Left</td>
<td>Applied daily. Strings left dangling on cones but snipped off at the end.</td>
</tr>
<tr>
<td>1-8-14</td>
<td>suspended above basin.</td>
<td></td>
</tr>
<tr>
<td>2-8-14</td>
<td>5L applied by bucket.</td>
<td>Bucket clogged so only 5L of 8L SSSS was applied.</td>
</tr>
<tr>
<td>3-8-14 to</td>
<td>8L applied by bucket.</td>
<td>Applied daily.</td>
</tr>
<tr>
<td>8-8-14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9-8-14</td>
<td>&quot;</td>
<td>Deposition of salt at the bottom of this cone is already noticeably heavier than on alternate days cone.</td>
</tr>
<tr>
<td>10 &amp; 11-8-14</td>
<td>&quot;</td>
<td>Applied daily.</td>
</tr>
</tbody>
</table>

Total SSSS applications: 16.
Experiment: Cone 2.5

2 identical cones. 27-7-14. The SSSS runs down the string. 27-7-14. Cone 2.5. 13-8-14.

<table>
<thead>
<tr>
<th>Date</th>
<th>Actions</th>
<th>Observations/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>27-7-14 to</td>
<td>8L SSSS applied by bucket. Left suspended</td>
<td>Applied every other day.</td>
</tr>
<tr>
<td>10-8-14</td>
<td>suspended above basin.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total SSSS applications: 8.</td>
</tr>
</tbody>
</table>

Conclusions: The daily cone had slightly heavier deposition at both the top and the bottom. Daily application may be better when the base is not left soaking in a basin of SSSS, but the difference is slight.

Experiment: Cone 2.4 / 2.5

<table>
<thead>
<tr>
<th>Date</th>
<th>Actions</th>
<th>Observations/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-8-14 to</td>
<td>8L SSSS applied by bucket.</td>
<td>Applied every other day.</td>
</tr>
<tr>
<td>21-8-14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22-8-14 to</td>
<td>8L SSSS applied by bucket.</td>
<td>Applied daily.</td>
</tr>
<tr>
<td>25-8-14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27-8-14 to</td>
<td></td>
<td>Applied every other day.</td>
</tr>
<tr>
<td>9-9-14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-9-14 to</td>
<td></td>
<td>Applied every other day.</td>
</tr>
<tr>
<td>3-9-14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14-9-14 to</td>
<td></td>
<td>Applied every other day.</td>
</tr>
<tr>
<td>28-9-14</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cone 2.4</td>
<td>Total SSSS applications: 40.</td>
</tr>
<tr>
<td></td>
<td>Applied to Cone 2.3 only from now on.</td>
<td></td>
</tr>
<tr>
<td>30-9-14 to</td>
<td>8L SSSS applied by bucket.</td>
<td>Applied daily to cone 2.5 only.</td>
</tr>
<tr>
<td>12-10-14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-10-14</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cone 2.5</td>
<td>Total SSSS applications: 40.</td>
</tr>
</tbody>
</table>
**Conclusions:** Overall these cones needed to be left going a bit longer. More SSSS needed. Daily application makes crystals form more quickly, but over the long term alternate day application promotes heavier growth.

**Suggested modifications:** Try leaving bases covered in SSSS for a week.

| Only ‘alternate days’ cones still getting SSSS from 30-9-14. | Cone 2.4. After 40 applications of SSSS. | Cone 2.5. After 40 applications of SSSS. Slightly heavier than 2.4 with the same amount of SSSS over a longer period of time and more evaporation. |
Experiment: Cone 3.1  Start date: 19-8-14  End date: 13-10-14

Experiment aim: To test the effect of piercing the fabric and stitching the mild steel structures into the cone before beginning of the SSSS application process. This was a success.

Materials: Thin white cotton sheeting, cotton thread, 350mm dia. galvanised metal ring, cotton string, SSSS, mild steel structures.

Cone construction method: Standard method. Fabric is pierced with a seam ripper to insert steel structures which are hand stitched on while the fabric is dry.

Size: 1800mm H x 350mm dia.

<table>
<thead>
<tr>
<th>Date</th>
<th>Actions</th>
<th>Observations/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-8-14</td>
<td>Dry cone is suspended under bucket by string. Bucket filled with 8L clean SSSS. Left sitting in a basin of SSSS.</td>
<td>Basin is balanced on a second inverted basin. Tideline a bit low</td>
</tr>
<tr>
<td>21-8-14</td>
<td>Bucket filled with 8L recycled SSSS + 2L watering can of clean SSSS added to middle.</td>
<td>Excess SSSS remains in basin</td>
</tr>
<tr>
<td>22-8-14</td>
<td>Bucket filled with 8L recycled SSSS. Replaced basin with a smaller one to raise tideline.</td>
<td>&quot;</td>
</tr>
<tr>
<td>24-8-14</td>
<td>Bucket filled with 8L clean SSSS.</td>
<td>&quot;</td>
</tr>
<tr>
<td>25-8-14</td>
<td>Bucket filled with 8L recycled SSSS + 4L watering can of clean SSSS to middle.</td>
<td>&quot;</td>
</tr>
<tr>
<td>27-8-14</td>
<td>Bucket filled with 8L recycled SSSS</td>
<td>Excess discarded.</td>
</tr>
<tr>
<td>29-8-14</td>
<td>Bucket filled with 8L clean SSSS</td>
<td></td>
</tr>
<tr>
<td>1-9-14</td>
<td>Bucket filled with 8L recycled SSSS + 4L clean SSSS to middle via watering can.</td>
<td></td>
</tr>
<tr>
<td>3-9-15</td>
<td>Bucket filled with 8L recycled SSSS</td>
<td>Excess SSSS remains in basin.</td>
</tr>
<tr>
<td>5-9-14</td>
<td>Bucket filled with 7L recycled + 3L clean SSSS.</td>
<td></td>
</tr>
<tr>
<td>7-9-14</td>
<td>Bucket filled with 8L recycled + 2L clean SSSS.</td>
<td>Deposition above tideline is starting to become heavy.</td>
</tr>
<tr>
<td>9-9-14</td>
<td>Bucket filled with 8L recycled + 2L clean SSSS</td>
<td></td>
</tr>
</tbody>
</table>
SSSS. 2L old SSSS discarded.

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14-9-14 to</td>
<td>Applied every other day.</td>
</tr>
<tr>
<td>18-9-14</td>
<td></td>
</tr>
<tr>
<td>19 &amp; 20-9-14</td>
<td>Applied daily.</td>
</tr>
<tr>
<td>22-9-14 to</td>
<td>Applied every other day.</td>
</tr>
<tr>
<td>30-9-14</td>
<td></td>
</tr>
<tr>
<td>2-10-14</td>
<td>Deposition at top is becoming heavy. White salt crystals are starting to form over rust stains and metal.</td>
</tr>
<tr>
<td>4 &amp; 6-10-14</td>
<td></td>
</tr>
<tr>
<td>8-10-14</td>
<td>Structures are starting to disintegrate.</td>
</tr>
<tr>
<td>10-10-14</td>
<td></td>
</tr>
<tr>
<td>12-10-14</td>
<td>Suspended above basin now, not submerged. Bucket filled with 6L recycled + 2L clean SSSS. 2L old SSSS discarded.</td>
</tr>
<tr>
<td>13-10-14</td>
<td>Sprayed with SSSS below structures only.</td>
</tr>
</tbody>
</table>

**Total SSSS applications:** 29.

---

### Conclusions:

Overall very good! The rust stains and salt on top of the rust stains are very nice. Adding 2L clean SSSS to each bucket seems a good way to keep the SSSS relatively clean. The rusty structures are disintegrating much more rapidly than anticipated.

### Suggested modifications:

It might have been nice to continue a bit longer (experiment stopped prematurely for photography). If going longer, would continue to spray below structures as they are already rusting apart! Try going back to using the heavier cotton drill fabric for more stability. Try stitching in double twists of wire only (to create rust stains and a way of attaching structures), and then attach structures to wire later.
Experiment: Cone 3.2  Start date: 21-10-14  End date: 19-1-15

Experiment aim: To test the effect of using twisted wire to stitched into fabric to secure the structures (so heavier wire is holding them on and so that the structures are subjected to fewer applications of SSSS. This was a qualified success.

Materials: Bleached calico, cotton thread, 300mm dia. galvanised metal ring, cotton string, SSSS, mild steel structures.

Cone construction method: Standard method. Fabric is pierced with a seam ripper to insert twisted steel wires which are hand stitched on while the fabric is dry.

Size: 1500mm H x 300mm dia.

Date | Actions | Observations/Comments
--- | --- | ---
24-10-14 | Dry cone is suspended under bucket by string. Bucket filled with 10L clean SSSS. Left sitting in a basin of SSSS. | Rust drips formed instantly!
26-10-14 to 31-10-14 | Bucket filled with 8L recycled SSSS + 2L clean SSSS. | Applied every other day. Cone stays damp to approx. 300mm above tide-line. Bottom already showing thicker deposits.
2-11-14 to 6-11-14 | Bucket filled with 8L recycled SSSS + 2L clean SSSS. | Applied every other day.
8-11-14 | Bucket filled with 8L recycled SSSS + 2L clean SSSS. Added extra twists of wire to created more rust. | 
10-11-14 to 14-11-14 | Bucket filled with 8L recycled SSSS + 2L clean SSSS. Removed extra twists of wire. | Applied every other day.
16-11-14 | Bucket filled with 8L recycled SSSS + 2L clean SSSS. | 
18-11-14 | Bucket filled with 6L recycled SSSS + 2L clean SSSS. Lowered basin so cone is now suspended above basin. | Deposition at base was getting powdery.
Extra wires added to create more rust. 8-11-14.


Rust never sleeps! Esp. at the junctions. 15-3-15.

<table>
<thead>
<tr>
<th>Date</th>
<th>Actions</th>
<th>Observations/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-11-14 to 24-11-14</td>
<td>Bucket filled with 6L recycled SSSS + 2L clean SSSS.</td>
<td>Applied every other day.</td>
</tr>
<tr>
<td>28-11-14</td>
<td>“</td>
<td></td>
</tr>
<tr>
<td>1-12-14 to 5-12-14</td>
<td>Bucket filled with 6L recycled SSSS + 2L clean SSSS.</td>
<td>Applied every other day.</td>
</tr>
<tr>
<td>6-12-14 to 10-12-14</td>
<td>“</td>
<td></td>
</tr>
<tr>
<td>11-12-14, 12-12-14 &amp; 14-12-14</td>
<td>“</td>
<td>Applied daily. (SCA closed for Xmas and then I went to Hawaii.)</td>
</tr>
<tr>
<td>10-1-15</td>
<td>Attached wire structures to twisted wires. Bucket filled with 6L recycled SSSS + 2L clean SSSS.</td>
<td></td>
</tr>
<tr>
<td>13-1-15 to 15-1-15</td>
<td>Bucket filled with 6L recycled SSSS + 2L clean SSSS.</td>
<td>Applied every other day.</td>
</tr>
<tr>
<td>19-1-15</td>
<td>Bucket filled with 6L recycled SSSS + 2L clean SSSS. Ended.</td>
<td><strong>Total SSSS applications: 31</strong></td>
</tr>
</tbody>
</table>

**Conclusions:** The rust stains are not as nice as when the whole structure is stitched in from the beginning. It is probably not worth pursuing this technique (although only time will tell if it turns out to be much stronger) The rusty structures are disintegrating much more rapidly than anticipated. And rust continues to develop after the SSSS applications stop, especially at the junction of metal and fabric.

**Suggested modifications:** Return to stitching in whole structures from the beginning. However it is NOT worth attaching them all, or making them aesthetically pleasing at this stage, as a large proportion of them rust right off! Arrgh. Try adding the bulk of them much later (after stopping SSSS).
Experiment: Cone 4.0  Start date: 10-7-14  End date: 7-9-14

Experiment aim: To test the effect of placing macramé string over a fabric cone. This was a qualified success.

Materials: cotton string, 300mm dia. galvanised metal ring, bleached calico, SSSS.

Cone construction method: Macramé a ‘sheet’ of fabric. 8 doubled strands, doubled length approx. 4 metres each, Macramé in a random pattern. Fabric cone constructed by the standard method. String sheet stitched to fabric cone at base and multiple strings stitched together at the top.

Size: finished size approx. 1500mm H x 300mm dia.

<table>
<thead>
<tr>
<th>Date</th>
<th>Actions</th>
<th>Observations/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-8-14</td>
<td>Made macramé sheet and left soaking in</td>
<td></td>
</tr>
<tr>
<td>5-8-14</td>
<td>Macramé ‘fabric sheet’ in a deliberately random pattern. 3-8-14</td>
<td></td>
</tr>
<tr>
<td>6-8-14</td>
<td>Soaked in SSSS. 3-8-14</td>
<td>Soaked strings stitched to fabric cone base. Square crystals attached. 24-10-14</td>
</tr>
<tr>
<td>8-8-14</td>
<td>Soaked strings stitched to fabric cone base. Square crystals attached. 24-10-14</td>
<td></td>
</tr>
<tr>
<td>24-10-14</td>
<td>Multiple wet strings stitched together. 24-10-14</td>
<td>Cone left suspended above basin. 24-10-14.</td>
</tr>
<tr>
<td>25-10-14</td>
<td>Cone left suspended above basin. 24-10-14.</td>
<td>The fabric cone evens out the colour. 1-12-14.</td>
</tr>
<tr>
<td>26-10-14</td>
<td>The fabric cone evens out the colour. 1-12-14.</td>
<td></td>
</tr>
<tr>
<td>1-12-14</td>
<td>The fabric cone evens out the colour. 1-12-14.</td>
<td></td>
</tr>
<tr>
<td>296</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SSSS with the lid on.

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-9-14</td>
<td>Removed lid</td>
<td>Noticed crystals weren’t forming without evaporation!</td>
</tr>
<tr>
<td>24-10-14</td>
<td>Wrapped string around fabric cone (some knots had been corroded away). Stitched strings together at top and stitched to base. 8L of SSSS added by bucket.</td>
<td>Square crystals had formed on the submerged string and thick deposited above the tideline. Cone is suspended above basin.</td>
</tr>
<tr>
<td>26-10-14</td>
<td>4L of SSSS added by bucket and 4L by watering can.</td>
<td>Not sure if all the string is getting wet via the bucket method. May need to spray?</td>
</tr>
<tr>
<td>27-10-14 to 29-10-14</td>
<td>8L of SSSS added by bucket.</td>
<td>Applied every other day.</td>
</tr>
<tr>
<td>31-10-14</td>
<td>4L of SSSS added by bucket and 4L by watering can. Then all 8L by bucket.</td>
<td>The internal fabric cone seems to be preventing all of the string from getting wet.</td>
</tr>
<tr>
<td>2-11-14 to 14-11-14</td>
<td>8L of SSSS added by bucket + 2L sprayed on.</td>
<td>Applied every other day.</td>
</tr>
<tr>
<td>16-11-14</td>
<td>8L of SSSS added by bucket + 2L sprayed on. Raised basin.</td>
<td>Cone is now soaking in SSSS.</td>
</tr>
<tr>
<td>18-11-14 to 28-11-14</td>
<td>8L of SSSS added by bucket + 2L sprayed on. Raised basin.</td>
<td>Applied every other day.</td>
</tr>
<tr>
<td>1-12-14</td>
<td>8L of SSSS added by bucket + 2L sprayed on. Lowered basin.</td>
<td>Cone is now suspended above basin.</td>
</tr>
<tr>
<td>3-12-14 to 5-12-14</td>
<td>8L of SSSS added by bucket + 2L sprayed on.</td>
<td>Applied every other day.</td>
</tr>
<tr>
<td>6-12-14 to 10-12-14</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>11-12-14 to 12-12-14</td>
<td>&quot;</td>
<td>Applied daily.</td>
</tr>
<tr>
<td>14-12-14</td>
<td>&quot;</td>
<td>(Break over Xmas and I went to Hawaii)</td>
</tr>
<tr>
<td>10-1-15</td>
<td>8L of SSSS added by bucket.</td>
<td>Applied every other day.</td>
</tr>
<tr>
<td>13-1-15 to 15-1-15</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>19-1-15</td>
<td>&quot;</td>
<td></td>
</tr>
<tr>
<td>26-1-15</td>
<td>8L of SSSS added by bucket. Ended.</td>
<td>Total SSSS applications: 33</td>
</tr>
</tbody>
</table>

**Conclusions:** The string + fabric cone method is difficult because the SSSS doesn’t flow evenly. It required more SSSS than either method alone. The finished cone reads whiter than the string only cone, but it looks a little contrived. Not sure if it is worth pursuing the string.

**Suggested modifications:** If used at all, it may be worth trying on a smaller scale.

**Post-Premonitionism 2 production 2014-2017**

After the experiments documented above the focus shifted to production. For structural strength, each cone requires a minimum of 31 applications of SSSS (the only one to collapse had only 29). It takes a period of approximately three months to complete a round of cones.

The first iteration of the work, shown in *Mapping The Drowned World* in October 2015, featured 36 cones. The iteration staged for examination includes 55.
Metropolis Experiment work in progress 2016-2017

*Metropolis Experiment* (ironically) did not require as much actual experimentation. The techniques developed during the experimental phase of *Post-Premonitionism 2* were utilised for adding salt to elements made of string and glass. I did develop a system of jigs and learn to MIG weld for this project.

Each tripod structure was constructed by welding 6mm dia mild steel rod. They range in height from 2000 – 350mm high. In addition to the steel structures, a system of dangling units (that can be moved around) was developed. These were made from string and salt, or glass, string and salt, all suspended from a steel triangle. The images below document process and work in progress rather than stages of an experiment.

<table>
<thead>
<tr>
<th>Jig on the hand guillotine to cut rod to length. The SCA workshop tech made this jig.</th>
<th>I made wooden jigs for each length. Rods cut to 40, 50, 60, 70, 80 and 90mm lengths.</th>
<th>I took a welding course at NAS and made a jig to for welding triangles.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production line.</td>
<td>Magnetic clamps.</td>
<td>Welding bay.</td>
</tr>
</tbody>
</table>
Triangles!  Tripod jigged up for welding.  Finished tripod, approx. 1000mm high.

Adding string to tripod.  Wonky macramé.  Tripods in the salt garden.

Salt on steel.  Salty net.  Metropolis Experiment!
<table>
<thead>
<tr>
<th>Making a net of beakers.</th>
<th>SSSS in beakers.</th>
<th>Salt crystals starting.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Testing dingle-dangle system.</td>
<td>Lab glass experiments.</td>
<td>Lab glass experiments.</td>
</tr>
</tbody>
</table>
**Drowned World map experiments**

I created a pure rust (ferric oxide) paint for this series. Wire was soaked in water until rust appeared, then removed. This rusty water was boiled to produce a ‘pigment’ of pure rust. I’m not sure if anyone else has done this, but I certainly did ‘invent’ this process without instruction.

The images below are of the first trials using this paint.

<table>
<thead>
<tr>
<th>Boiling rusty water.</th>
<th>Pure rust pigment.</th>
<th>Trying the rust paint.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>3-6-2014</td>
</tr>
</tbody>
</table>

**Drowned World map drawing process**

I made time-lapse videos of each map being made. Each map took around 20-30 hours of labour.

Tracey Clement, *Drowned World: Bonne Projection*, 2015, pencil and rust on paper, 800 x 1210mm. The Bonne projection was created in 1752. My map took approx. 30 hours of drawing, Feb – Oct 2015.

All the time-lapse videos are here:
[https://traceyclement.com/category/drowned-world-maps](https://traceyclement.com/category/drowned-world-maps)
Drowned World map data

This data was generated with the help of Dr Sabin Zahirovic from the University of Sydney school of geosciences. Using GIS software, we were able to determine which cities are likely to remain dry and which will be flooded, based on an estimated sea-level rise of 70 metres.

The cities were chosen based one a variety of factors including population and their status as national or state capitals.

Not all of these cities made it on to my Drowned World series of maps.

<table>
<thead>
<tr>
<th>City</th>
<th>Country</th>
<th>Pop class</th>
<th>Wet/Dry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abidjan</td>
<td>Cote d'Ivory</td>
<td>1,000,000 to 5,000,000</td>
<td>W</td>
</tr>
<tr>
<td>Abu Dhabi</td>
<td>United Arab Emirates</td>
<td>100,000 to 250,000</td>
<td>W</td>
</tr>
<tr>
<td>Abuja</td>
<td>Nigeria</td>
<td>Less than 50,000</td>
<td>D</td>
</tr>
<tr>
<td>Accra</td>
<td>Ghana</td>
<td>500,000 to 1,000,000</td>
<td>W</td>
</tr>
<tr>
<td>Addis Ababa</td>
<td>Ethiopia</td>
<td>1,000,000 to 5,000,000</td>
<td>D</td>
</tr>
<tr>
<td>Ahmadabad</td>
<td>India</td>
<td>1,000,000 to 5,000,000</td>
<td>W</td>
</tr>
<tr>
<td>Al Manamah</td>
<td>Bahrain</td>
<td>100,000 to 250,000</td>
<td>W</td>
</tr>
<tr>
<td>Aleppo</td>
<td>Syria</td>
<td>1,000,000 to 5,000,000</td>
<td>D</td>
</tr>
<tr>
<td>Alexandria</td>
<td>Egypt</td>
<td>1,000,000 to 5,000,000</td>
<td>W</td>
</tr>
<tr>
<td>Algiers</td>
<td>Algeria</td>
<td>1,000,000 to 5,000,000</td>
<td>W</td>
</tr>
<tr>
<td>Almaty</td>
<td>Kazakhstan</td>
<td>1,000,000 to 5,000,000</td>
<td>D</td>
</tr>
<tr>
<td>Amman</td>
<td>Jordan</td>
<td>500,000 to 1,000,000</td>
<td>D</td>
</tr>
<tr>
<td>Amsterdam</td>
<td>Netherlands</td>
<td>500,000 to 1,000,000</td>
<td>W</td>
</tr>
<tr>
<td>Andorra La Valla</td>
<td>Andorra</td>
<td>Less than 50,000</td>
<td>D</td>
</tr>
<tr>
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Work presented for examination
Tracey Clement, *Post-Premonitionism 2, Mapping the Drowned World* installation 2015, salt, rusty steel, cotton, dimensions variable, 36 units, height 80-190cm ea. Photo: Tracey Clement.


Tracey Clement, *Drowned World: Petermann Star Projection*, 2014, pencil and rust on paper, 800 x 121cm.

Tracey Clement, *Drowned World: Bonne Projection*, 2015, pencil and rust on paper, 800 x 121cm.
Tracey Clement, *Drowned World: Eckert Projection*, 2016, pencil and rust on paper, 800 x 121cm.

Tracey Clement, *Drowned World: Fuller Projection*, 2016, pencil and rust on paper, 800 x 121cm.

Note: The fifth map, *Drowned World: Loximuthal Star Projection*, 2017, will be exhibited, but is not pictured.