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From The Book of Revelation to Vonnegut's *Cat's Cradle*: Unveiling causality in apocalypse

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ABSTRACT

The Book of Revelation, the much-disputed final book of the Christian Bible, is seen by many as the definitive apocalyptic text, both due to its place in the holy book of a major world religion but also the prevalence of its images in popular culture. However, the notion of apocalypse expands beyond this text. Herein this article decodes and discusses ideas surrounding apocalypse and analyses Kurt Vonnegut's 1963 satirical novel *Cat's Cradle* alongside chapters 17-18 of Revelation through the lens of Justin McBrien's 'Accumulating Extinction: Planetary Catastrophism in the Necrocene', a work that established the notion of the Necrocene, an epoch defined by capitalist accumulation hurling humanity toward mass extinction. The article seeks to refine a definition of apocalypse, not simply as the end of the world or as an unveiling, but as a distinct literary feature that, through the use of imagery and metaphor, reveals not only the consequences but also the causes of the end – causes which can, time and time again, in various works, be traced back to capitalism.

Introduction: The Apocalypse Then and Now

The notion of apocalypse, or the apocalyptic, is a complex one, often overused or used without due consideration toward its connotations. Some authors use the phrase to mean a genre, attributed to novels, films and television shows, though this often blurs with two other genre labels: post-apocalyptic and dystopian. Some use the word to mean "end of the world", often prefaced with the definite article "the" to read "the apocalypse", making it unique – there can, after all, be only one end of the world (or so it seems, at first). Meanwhile, the word apocalyptic is regularly used as a descriptor, as an adjective to describe a book, a film, a television show or, in some cases, the world in which we live. But decoding apocalypse is not a

simple task as apocalypse is not a simple word with a set, clear meaning. This article seeks to craft a new definition of apocalypse – not as merely the end of the world or a simple unveiling but as a distinct literary feature that utilises metaphor and imagery to reveal both the consequences and the causes of an end.

To embark upon this task, a reading and critical exploration of the Biblical Book of Revelation laid the necessary groundwork, the text being arguably one of the most famous theological apocalypses, and one regularly used in popular culture. To elucidate this multi-layered text, various commentaries were utilised, namely David Aune's three-volume commentary *Word Biblical Commentary: Revelation* (1997-98), Leon Morris' more concise *Revelation* (2009) and Robert W. Wall's *New International Biblical Commentary: Revelation* (1995). Ian Boxall's *Revelation: Vision and Insight* (2002). J. B. Phillips' 1960 translation of the text was also valuable. All of these commentaries provided insights into apocalypse on a broader scale, providing theoretical angles on apocalypse as a concept, and this was furthered by Lee Quinby's 'Apocalyptic Security: Biopower and the Changing Skin of Historic Germination' (2014), from *Apocalyptic Discourse in Contemporary Culture* (2014), and Hambrick's 'Destroying imagination to save reality: Environmental apocalypse in science fiction' (2012), from *Environmentalism in the Realm of Science Fiction and Fantasy Literature* (2012).

Landmark eco-critical works including Buell's *The Environmental Imagination* (1996) and Garrard's *Ecocriticism* (2023), originally published 2004 and 2012, assisted in understanding the place of apocalypse in eco-writing, alongside Adeline-Johns Putra's *Climate Change and the Contemporary Novel* (2019), as well as Johns-Putra and Goodby's chapter 'The Rise of the Climate Change Novel' (2019) and Claire Colebrook's 'The Future in the Anthropocene: Extinction and the Imagination' (2019), both from *Climate and Literature* (2019). Contemporary apocalyptic eco-critical theory also elucidated the notion of apocalypse as a modern, environmental issue, namely Justin McBrien's 'Accumulating Extinction: Planetary Catastrophism in the Necrocene' (2016), which presented the notion that we are unknowingly living in an epoch that could and should be called the Necrocene, the age of death, the end of the world through capitalist accumulation. Jason Moore's *Capitalism In the Web of Life* (2015) and his edited collection *Anthropocene or Capitolocene: Nature, History and the Crisis of Capitalism* (2016) (which features McBrien's work) furthered these perspectives on the damaging effects of greed, capital and accumulation. With these works, a link between capitalism and apocalypse emerged and solidified. To pinpoint and define capitalism, I utilised Fredric

Jameson's *Postmodernism: Or, The Cultural Logic of Late Capitalism* (1991) and Ernest Mandel's *Late Capitalism* (1972/1976).

Works labelled as apocalyptic, namely novels and films, have become increasingly popular in the decades since the end of the Second World War and the beginning of the post-war nuclear arms race. However, modernist literature anticipated, in the aftermath of the horrors of the First World War this prevalence of apocalyptic literature. T. S. Eliot's 'The Waste Land' (1922/2022) called into question the state of the modern world, and I sought to elucidate the poem's apocalyptic voice(s) in my own essay 'What the thunder really said: T. S. Eliot's 'The Waste Land' as a proto-Necrocene' (2023), wherein I concluded that prophetic voices present not a tale of rebirth but a tale of apocalyptic deluge brought on by modernity and technology. Further, the poets of the New Apocalypse, newly showcased in James Keery's anthology *Apocalypse* (2020) and posited as being conceived, as a coherent movement, in 1938 (Keery, 2020, p. 1), anticipated the apocalyptic resurgence, despite not knowing about the atom bomb that would be dropped on Japan by the United States in 1945. Their images present at times explicit apocalyptic language akin to that of The Book of Revelation, such as Andrew Young's 'Reflections on the River': 'as though the heavens were seized with an earthquake' (Keery, 2020, p. 30), though in other moments merely suggest a discomfort or craft an unsettling unnaturality.

An abundance of narratives that are categorised as apocalyptic emerged post-World War II, in the period in which Mandel believed late capitalism to have come into being and which McBrien argues succeeds the 'apotheosis' of his Necrocene (2016, p. 124) . J.G. Ballard's novel *The Drowned World*, published in 1962, envisioned a world, as suggested by the title, almost entirely submerged in water, changing the way humanity lived. In 1964, he instead envisioned the world as dry and barren in *The Burning World*, expanded and re-titled as *The Drought* a year later. In between the two, in 1963, Kurt Vonnegut published his novel *Cat's Cradle*, where the human creation of ice-nine freezes the oceans and all the water in the world and, inevitably, those who live on it, satirising the creation and the politics of the atom bomb and the anxieties of its threatened use. This exploration of the end of the world continued on through the next decades and has remained a focal point of both popular fiction and literary works. In 1978, Stephen King published an apocalyptic novel, *The Stand*, in which a deadly virus spreads and destroys civilisation, leaving humanity to fall into a new, dystopian world. The novel was so popular that, in 1990, King revised the novel, republishing it as *The Stand: The Complete and Uncut Edition*, most notably moving the novel's timeline ten years into the future, bringing his own apocalypse up to date.

James Morrow's *This Is The Way The World Ends* (1987) begins as a simple speculative narrative and then shifts the story into the science fiction genre, characterising the ghosts of those who would have lived had it not been for the firing of nuclear missiles and the subsequent ending of the world and presenting their anger at having being robbed of life, placing the blame on contemporary humanity. In 2003, Margaret Atwood published *Oryx and Crake*, presenting a post-apocalyptic world intentionally created by human action. In 2006, Cormac McCarthy published *The Road*, in which a father and son traverse a dangerous and gruesome post-apocalyptic world where civilisation and moral goodness have collapsed. Post-apocalyptic tales have also grown in popularity in young adult fiction, notably Suzanne Collins' *The Hunger Games* (2008), in which the civilisation that has been built in the post-apocalypse is one of violence and horror. Derek Landy uses the end of the world as a plot device in the *Skulduggery Pleasant* series twice (*The Dying of the Light* (2014) and *Until The End* (2022)). It is interesting, however, that in all these works there are survivors. In all these novels, the end of the world either only threatens to occur (Landy's *Until The End* wipes out everything – but undoes it) or occurs but ends only the human notion of civilisation, not the world itself (Ballard's novels follow characters' journeys after a cataclysm). Perhaps this is because 'the threat to human existence… becomes internalised: the only apocalypse or end that we can imagine is one in which we lose ourselves' (Colebrook, 2019, p. 268), 'ourselves' being our sense of identity, society and civilisation, the elements of our being that separate us from the rest of the living beings on Earth. The novel under consideration here that comes closest to total annihilation is Vonnegut's *Cat's Cradle*, via its narrative and through its links to the bombings of Hiroshima and Nagasaki. After all, the novel concludes with mass suicides as vast arrays of characters refuse to live in the world post-cataclysm. Current discussions of apocalypse alongside climate fiction would benefit from looking back at *Cat's Cradle*, which presents a more total apocalypse that destroys nature – 'no plants or animals survives' (Vonnegut, 2008, p. 198) and, bar a few minor survivors who we can assume, from their unanswered SOS calls running day and night, are the only ones, shatters any notion of civilisation. For this reason, I will explore *Cat's Cradle* alongside the biblical Book of Revelation in order to elucidate what apocalypse is, how apocalypse is presented and understood and the role causality plays within it.

What is apocalypse? In giving this piece as a paper at the University of Huddersfield's Postgraduate Research Conference Gather & Grow (2023), I asked the audience to imagine an apocalypse. Once they had settled on an image, I suggested that their idea of apocalypse

could be taken from their respective religions, or from the news which, at the time, was talking in great detail about Vladimir Putin, nuclear arsenals and the Doomsday Clock, among other things. I also noted that their idea of apocalypse could be from fiction such as that which I have already discussed, but also perhaps from other media such as film or television. Around the room, heads nodded. I asked, then, for audience members to raise a hand if their perception of apocalypse was anything except "end of the world", in one form or another. No hands raised. This conference was my third time asking this question, having previously delivered the paper at a Postgraduate Shorts conference and in an Arts & Humanities school conference (both 2023) arranged by my peers. Each time, no hands raised, except one hand, once, at the Arts & Humanities Conference. Though a relatively small sample size, it seemed that, to most people, apocalypse meant "end of the world".

However, Leon Morris, in his commentary on the Book of Revelation, stated that 'an apocalypse purports to be a revelation made by some celestial personage…to a great figure of the past…expressed in vivid symbolism, sometimes of a bizarre kind' (2009, p. 25). Here, the definition of apocalypse is not "end of the world", but a revelation of some kind, made in symbolism and imagery. Further to this, Ian Boxall defined apocalypse through the word's origin: 'the word "apocalypse"…is derived from the Greek…which literally means "uncovering" or "unveiling"' (2002, p. 13). This is concurred by Stephen O'Leary: 'Apocalypse, a Greek work, meaning revelation or unveiling' (1994, p. 5). Again, apocalypse is not defined as "end of the world", but as revealing something. Boxall goes further to state 'an apocalypse provides a narrative framework within which… a revelation can be described' (2002, p.13). Apocalypse now becomes a text that reveals something, perhaps through story or poetic constructions such as metaphor and imagery (or, perhaps, both). That is not to say that "end of the world" is an inaccurate perception of apocalypse, as '"apocalypse" is understood to mean truthful revelation about the divine obliteration of time, most of humanity, and the world' (Quinby, 2014, p. 18), and apocalypticism is seen as 'the use of language and imagery that portends a coming disaster or, in many cases, warns of total annihilation' (Hambrick, 2012, p. 129), but it does mean that apocalypse is more complex than it first seems and that the notion of the end of the world is but a facet of apocalypse. After all, Quinby's definition still requires a 'truthful revelation' and Hambrick's definition suggests, through the verb 'portends', that apocalypse requires some kind of warning or precognition. For an end of the world to be apocalyptic, then, the art in which the end is presented must unveil something. Herein I will propose that which must be unveiled for something to truly be

apocalyptic is the cause of the end – and that, more often than not, the cause of the end can be traced back to capitalism, hence concurring the central notion of McBrien's 'Accumulating Extinction: Planetary Catastrophism in the Necrocene' (2016) – that 'from capital, extinction has flowed' (2016, p. 116).

The Capitalist Apocalypse

Kurt Vonnegut once stated, in a *Playboy* interview he transcribed (and, in places, amended) for his collection *Wampeters, Foma & Granfalloons* (1985), that he had 'the canary-in-a-coal-mine theory of the arts' (p. 214), believing that 'writers are a means of introducing new ideas into the society, and also a means of responding symbolically to life' (p. 213). That apocalyptic narratives have the power and potential to introduce new ideas into society is something that can never be definitively proven, but Lawrence Buell did assert that 'Apocalypse is the single most powerful master metaphor that the contemporary environmental imagination has at its disposal' (1996, p. 285). Hambrick concurred:

> Environmental writers must find ways of capturing the attention of an audience… and then galvanising the audience to take appropriate action. one particular common and powerful metaphor in environmental writing … is apocalypse. (2012, p. 129)

Not only does this assert apocalypse's power to inspire change when used as metaphor in eco-writing, it also emphasises the power of a writer to present this change, the power of a writer to have a positive effect on the world. Writers can and do introduce new ideas into society, as Vonnegut suggested, and thus ideas and meanings can be construed from every piece of art we consume.

Kurt Vonnegut's statement has, throughout my research, proven to have some truth to it – especially in the context of apocalypse and apocalyptic narratives. Notable ecocritical scholars have discussed the usefulness and power of apocalypse and apocalypticism as a tool for environmental change. Goodby and Johns-Putra highlight the existence of 'two types of climate change novels', stating that 'the first type tends to be set in a recognisable, realist present (or very near future) and the second in a futuristic, climate-changed world, which one could characterise as apocalyptic, post-apocalyptic or dystopian' (Goodby & Johns-Putra, 2019, p. 234). These novels utilise apocalypse and apocalypticism to present climate change, to instil fear and, perhaps as a consequence, inspire change. Johns-Putra herself believes that 'the potential exists for such art to posit… radical, alternative visions of the future' (Johns-Putra, 2019, p. 35) by using apocalypse to make

climate change tangible and real because, by her own admission, 'climate change is, for want of a better word, invisible' (Goodby & Johns-Putra, 2019, p. 234). Further to this, Lawrence Buell, as already stated, believes in the power of apocalypse as a metaphor and that 'the rhetoric of apocalypticism implies that the fate of the world hinges on the arousal of the imagination to a sense of crisis' (1996, p. 285). Apocalypse engages the senses, makes the consumer of art aware of the fate of the world in which we live and, possibly, the cause of this fate. Hambrick concurs, taking it a step further to say that apocalypse in fiction is at its most powerful because, by his own admission, 'heavy-handed use of apocalyptic rhetoric can be immobilising' (2012, p. 132) and fiction provides a perfect 'narrative framework' (Boxall, 2002, p. 13) for a revelation to be presented. Trexler adds to this with his argument that 'Fictionalising climate change is not about falsifying it, or making it imaginary, but rather about using narrative to heighten its reality' (2015, p. 75), while Garrard praises tasteful apocalypse in narrative, stating 'We should look forward to fictions that… refuse to delight in annihilation and instead "dance with disaster" in a constructive, unillusioned way' (2023, p. 122). Compounding this, we are able to build a concise definition of apocalypse: a metaphor or device that unveils the cause of the end of the world. This is the definition we will use when referring to apocalypse for the remainder of this essay.

But the question still remains about *what* these apocalypses unveil, be they apocalypses from ancient theological works such as The Book of Revelation or from contemporary novels and films. This brings us to the Necrocene, a notion expanded upon in great detail by Justin McBrien in his piece 'Accumulating extinction: Planetary catastrophism in the necrocene' (2016). McBrien's work posits that the epoch in which we currently reside should not be termed the Anthropocene or the Capitolocene, because 'both recognise extinction but have yet to grasp its ontological significance' (McBrien, 2016, p. 116), but instead should be termed the Necrocene, which 'reframes the history of capitalism's expansion through the process of becoming extinction' (p. 166). The Necrocene reached its peak, according to McBrien, when 'capitalism found in the atom bomb the dark watery reflection of its own image' (p. 124). Then, he claims, capitalism 'realised that its logic could only lead to one thing: total extinction… it had become the Necrocene.' (p. 124). McBrien's notion centres upon the inextricable links between the investment in military defence and technoscience that spawned the atom bomb and capitalist growth, a link established through the perception of such developments as 'military-industrial production' (2016, p. 124) wherein, he claims, 'capitalism attempted to save itself from destruction through the absolute intensification

of destruction' (2016, p. 124). Framing capital as a sentient being or, rather, beast, a central notion of McBrien's theory was that 'capital was born from extinction, and from capital, extinction has flowed' (p. 116) and that capital 'leaves in its wake the disappearance of species, languages, cultures and peoples' (p. 116), thus presenting it as a self-fulfilling total end, an end that ends everything, not just civilisation or society, not just the 'frequently imagined … end of the "favourable conditions" that allowed us to be rational cosmopolitans' (Colebrook, 2019, p. 270). McBrien posits that the cause of the end of the world is capitalism. Jason Moore expands upon the damaging effects of capital, stating in *Capitalism in the Web of Life* (2015) that coal and steam, the foundations of the industrial revolution, are 'the motive force behind this epochal shift' (p. 170). He further states that human growth as a dominant species is:

> constructed almost entirely on the basis of a significant catalogue of biospheric consequences. The drives of such consequences are typically reduced to very broad… categories: industrialisation, urbanisation, population and so forth. (p. 171)

presenting industrialisation, or capital growth, as a leading cause of 'biospheric consequences'. A year later, in the acknowledgements of his edited collection *Anthropocene or Capitolocene: Nature, History and the Crisis of Capitalism* (2016) (which notably features McBrien's 'Accumulating Extinction') he stated, in no uncertain terms, that 'Capitalism is the pivot of today's biospheric crisis' (p. xi). The capital to which he refers, it seems, is Ernest Mandel's late capitalism, defined in his book of the same name (1972/1976). Fredric Jameson reappraised this notion, stating that 'there have been three fundamental moments in capitalism… These are market capitalism, the monopoly stage or the stage of imperialism, and our own… what might better be termed multinational capitalism' (p. 35). He further analyses late capitalism's 'two essential features: (1) a tendential web of bureaucratic control … and (2) the interpenetration of government and big business' (Jameson, 1990, p. xviii). This seems to fit the capitalism Jason Moore had in mind, as well as the monstrous capitalism of McBrien's Necrocene. This is the definition ascribed to capitalism going forward in this article.

Can it be, then, that that which is defined as apocalyptic art, be they disaster movies or eco-novels, are texts that utilise apocalypse to unveil the dangers and damage caused by capital? Consider first our earlier assertion that apocalypse functions as metaphor to arouse the imagination and heighten the reality of the end of the world. Does this not require, as it is narrative's nature to present cause and effect, an unveiling of that which has

caused the end of the world? Could it be that the cause is capital in a vast amount of narratives which are labelled as apocalyptic, post-apocalyptic or dystopian? Consider the novels mentioned in our introduction: King's *The Stand* (1990) presents apocalypse by virus – but the virus is a manufactured bio-weapon. This is not vastly different from a manufactured nuclear bomb, which brought about, according to McBrien, the Necrocene – human capitalist accumulation has led to technological advancements capable of making the human race extinct. Perhaps capital could see in bio-weapons, too, the 'dark, watery reflection of its own image' (McBrien, 2016, p. 124). The same can be said for ice-nine in Vonnegut's *Cat's Cradle* (1963), which is satirically paralleled with the atom bomb itself, or the virus unleashed by Crake in Atwood's *Oryx and Crake*. The reflection of capital stares back in these, too. McCarthy's *The Road* (2006) does not state the extinction event that has occurred to create the novel's setting, but the reader can easily imagine a man-made nuclear bomb, a product of capital growth, creating this world by destroying its predecessor, the exact type of weapon in which capitalism self-actualised as an extinction-causing entity. Each of these brings into society a new idea about the end of the world, thus we have the unveiling necessary for apocalypse, as well as the causality of the end of the world itself. The lens of the Necrocene provides an intriguing angle through which narratives defined as apocalyptic, post-apocalyptic and dystopian can be read to understand not only the consequences of the end of the world, but to unveil the causes of it, truly establishing the works as apocalyptic.

These Necrocene readings of apocalyptic works allow for the perception of what Nixon terms "slow violence" in his work *Slow Violence and the Environmentalism of the Poor* (2011), 'a violence of delayed destruction that occurs across time and space… [that] is incremental and accretive' (2011, p. 2), by framing this slow violence as a consequence of capitalist accumulation. This also allows us to answer his question 'how can we convert into image and narrative disasters which are slow moving' (p. 3) – through apocalypse.

Nixon's titular slow violence is the very antithesis of catastrophism, defined by McBrien as 'disruptions in ecological homeostasis, driven by… natural catastrophes' (2016, p. 211). Kunstler, in *The Long Emergency: Surviving the Converging Catastrophes of the 21st Century* (2005) and Potter in *On Decline* (2021) concur this slow-moving end of the world, with the former terming the coming crisis his titular 'The Long Emergency' (Kuntsler, 2006, n.p) while the latter noting that 'in the movies, where it's usually a sudden Big Event that shocks humanity, ours is a slow-moving thing' (Potter, 2021, p. 17) and that it 'isn't the One Big Thing that we've been conditioned by

Hollywood to think of as the apocalypse' (p. 22). Nixon, however, expressed that, with regards to presenting slow violence in art and entertainment, 'the representational challenges are acute, requiring creative ways of drawing public attention to catastrophic acts that are low in instant spectacle but high in long term effects' (2011, p. 10). The popularity of catastrophe narratives can be attributed to their grandiose, thrilling, enthralling nature. Nixon himself agreed that:

> Falling bodies, burning towers, exploding heads, avalanches, volcanoes and tsunamis have a visceral, eye-catching and page turning power that tales of slow violence, unfolding over years, decades, even centuries, cannot match. (Nixon, 2011, p.3)

Catastrophe narratives provide an 'eye-catching and page-turning power'. Nixon himself continued to say that 'slow violence is deficient in the special effects that fill movie theatres' (2011, p. 6) and conceded that 'slow acting violence… [poses] formidable imaginative difficulties for writers' (pp. 9-10). However, by reading through the lens of the Necrocene, we can elucidate this slow violence and explore how the long-term effects of capitalism in all its forms is underlying in end of the world narratives, including those that present themselves distinctly as catastrophe narratives (the catastrophe itself being, most likely, the endgame of the long, incremental slow violence).

I will illustrate this by first exploring the relevance of the Necrocene to The Book of Revelation. Despite the Necrocene's apotheosis, according to Justin McBrien, coming in 1945, thousands of years after the writing of Revelation, if we apply Leon Morris' 'futurist' view of the text (2009, p. 21), we can treat it as a piece written to foreshadow end times in the modern day, the age of the Necrocene, the age of late capitalism. To compound this, I will then explore Vonnegut's *Cat's Cradle*, a novel explicitly written in the time of late capitalism and the Necrocene, highlighting how a satirical disaster narrative can still elucidate slow violence and destructive capital. Both analyses seek to expose the role of causality in apocalypse, be that ancient, theological, prophetic apocalypse or postmodern, satirical sci-fi apocalypse.

Causality in Apocalypse

The audience to whom Revelation was addressed has been widely debated by Biblical scholars. Leon Morris concisely summed up the 'principal ways of viewing it' (2009, p. 19) in his commentary *Revelation* (2009):

> The "preterist" view… sees the book as arising out of the situation of the first Christians and that is its outstanding merit… the "historicist" view…

> [which] claim[s] that it is an inspired forecast of the whole of human history… the "futurist" view… the book is exclusively concerned with happenings at the end of the age…[and] the "idealist" view… the whole book is concerned with ideas and principles. In sets out in poetic form certain theological conceptions. (2009, pp. 19-21)

If we subscribe to the futurist view, that Revelation is 'a forecast of what will happen in the last days' (Morris, 2009, p. 21), we are able to apply McBrien's notion of the Necrocene to Revelation, as the end-times to which it refers have not yet come, and thus must lay ahead of us today, making them an occurrence due in the age of late capitalism and the age of the Necrocene. As the Necrocene, according to McBrien, peaked with the dropping of the atomic bombs on Hiroshima and Nagasaki (2016, p. 124), that period must be the epoch in which we currently reside. But that also means that the Necrocene is the final age, and if we are living in the Necrocene now we are living in the end times, the capitalist end times, and Revelation was written for us, now, and thus its message should be stark and harrowing for us once we decode it. After all, Morris asserts that 'there is no age for which [Revelation's] essential teaching is more relevant' (Morris, 2009, p.18) and stated that, specifically regarding the Great Whore, 'we miss the point of it all if we conclude with many modern critics that John is concerned only to denounce contemporary Rome' (p. 205). He is, of course, denouncing contemporary Rome, but that is not all.

In order to elucidate the cause of the end presented in The Book of Revelation, it is first necessary to explore how John the Divine presents his apocalypse. The majority of the text constitutes a vision imparted to John the Divine from God, 'disclosed to John through an angelic intermediary' (Phillips, 1960, p. 7). Thus, the angel reveals to John what will happen in the end times. This revelation, however, is presented symbolically, oftentimes through images that seem almost impenetrable. During the University of Huddersfield's Gather & Grow Conference (2023), I asked the audience to imagine a beast. The audience complied. I then tasked them with picturing a beast with 'seven heads and ten horns' (*King James Bible*, 1769/2017) as in Revelation 13:1, which they found more difficult. Where, for example, should the heads go? And once the heads have been placed, where should one put the horns? Naturally, we wish to put the horns atop the heads of this beast, but they cannot be evenly distributed among the heads. Thus, our difficulty in interpreting Revelation comes from the fact it is unfamiliar to us. Revelation is making use of 'language which is symbolic and poetic' (Phillips, 1960, p. 9), thus we should read it as metaphorical, and is defamiliarizing

('presenting familiar things in unfamiliar ways' (Lodge, 1992, p. 53)) to craft meanings that, on the surface, seem indecipherable. To step back and view the whole canvas, it becomes apparent that everything in the text could be understood as metaphorical, such as the thunder which, according to David Aune in his three-volume *Word Biblical Commentary: Revelation* (1998), 'is used… to characterise an extremely loud voice' (1998, p. 393), furthered by his declaration that '[Thunder is] always a metaphor for articulate speech by supernatural beings' (p. 560). Even death itself is metaphorical, Aune states that 'Death is personified four times in Revelation' (1998, p. 401). Hence Revelation itself aligns with the definition of apocalypse used in this article.

It is through image and symbolism that apocalyptic works, from ancient theology to popular literature, can be interrogated through a literary critical perspective. The numbers four and seven recur in the text as part of a wider complex numerology. Aune states that 'seven… occurs… in Revelation to reflect the divine arrangement and design of history and the cosmos' (1998, p. 948), while four is the 'number of the universe…and therefore all humanity' (Boxall, 2002, p. 62). Thus, even the numbers utilised by John have underlying, metaphorical meanings. Ian Boxall concerns himself in detail with this, breaking down 'the significance of numbers' (2002, p. 62) by discussing the underlying meanings of the numbers 1-10, 12 and 1000 as typological science (2002, p. 62). Further to this, The Book of Revelation lacks coherence. In Revelation 6:13, 'the stars of Heaven fell unto the earth' (*King James Bible*, 1769/2017), but in 12:4, the great red dragon's 'tail drew the third part of the stars of heaven, and did cast them to the earth' (*King James Bible*, 1769/2017). Aune sees the metaphorical capabilities of this image, stating 'the fallen star motif is frequently used as a metaphor for the fall of Satan' (1998, p. 415), while Morris argues that this incoherence furthers the text's metaphorical meanings, stating that 'it is a matter of indifference whether the symbols can be visualised or reconciled' (2009, p. 24) as it is 'their purpose… to convey ideas' (p. 24) and 'the symbols do not all serve the same purpose' (p. 25). The text, then, is entirely metaphor, and thus requires decoding. If we read it this way, through the lens of the Necrocene, we can elucidate a relevance, at the very least a foreshadow, in Revelation to today's capitalist world.

When we reach chapters 17 and 18 and meet the Whore of Babylon (and see her fall), we are already steeped in metaphor, imagery and symbolism, we are already aware that John is defamiliarizing us with the images he is presenting, we are already conscious that the image we are about to see is not a literal one but a metaphorical one begging to be understood. All we need to truly be reading an apocalyptic text is causality. We question, first, what the

Whore of Babylon is, what she represents. Wall states 'the harlot personifies wealth and power' (1995, p. 206) while Aune states 'the image of the prostitute is frequently found in the OT [Old Testament], where it is applied to godless cities' (1998, p. 929) and claims that 'the great whore represents Rome' (1998, p. 929) – as stated earlier, John's criticism of contemporary Rome cannot be ignored. Morris concurs: 'she stands for… man in organized but godless community' (2009, p. 195). I propose that the Whore, through the futurist lens, represents the Necrocene and thus presents capital and greed as the cause of destruction.

Though the notion of the Great Whore as representative of capitalism is not a new idea, the application of the Necrocene to her takes further the analyses of Aune, Morris, Boxall and Wall, the four main scholars whose analysis of The Book of Revelation has been invaluable to my exploration of the text and of apocalypse as a whole. The potential for the Great Whore to symbolise the pervasive, destructive capitalism brought to life in McBrien's essay is prevalent throughout chapters 17 and 18. McBrien states that 'capital appears as a species, an opportunistic detritus feeder producing mass extinction in the present' (2016, p. 117). John personifies capital in the Whore, making her a being, a creature, akin to McBrien's presentation. Further to this, the Whore destroys herself or, rather, is destroyed by her own sin, akin to necrosis which 'proceeds by autolysis, a form of self-digestion in which a cell destroys itself through its own enzymes action' (2016, p.117), a notion furthered by Morris' assertion that 'there is no cohesion in evil; it is always self-destructive' (2009, p. 204). Most notably, however, he asserts that 'she is not only a prostitute herself, but she spawns evils like her own' (2009, p. 198), a too perfect embodiment of two key facets of the Necrocene: 'capital was born from extinction, and from capital, extinction has flowed' (McBrien, 2016, p. 116) and the notion of 'life into death and death into capital' (p.117). The Whore spawns sin like her own, as capital spawns extinction, as extinction spawns capital. She is self-fulfilling, as the Necrocene end is, and she is self-damning, as capital is. Regarding her destructive characteristics and her own destruction, ecofeminist theologians noted as early as the 1970s the 'sources of the domination of women and nature with patriarchal Christianity' (Eaton, 2005, p. 20) which perhaps explains the gendering of the Great Whore – here, woman is both posited as the cause of the sins of man, as the seducer, and then she is punished. Though not the area of focus herein, the gendering of nature and of apocalyptic destruction is an avenue worth exploring.

Quite literally, the Whore is tied to capital and accumulation. That the Whore 'sitteth upon many waters' (*King James Bible*, 1769/2017), according to Morris, 'might refer

to… wide-ranging seagoing commerce' (2009, p. 196), an important form of trade in the Roman Empire. That 'the kings of the earth have committed fornication' (*King James Bible*, 1769/2017) with her is, in Morris' eyes 'their dealings with the city as laudable trade and cultural ventures' (2009, p. 196). Boxall asserts that 'the cargo lists of [Chapter 18] vv 12-13 are the known imports of imperial Rome' (2002, p. 76), furthering her ties to trade, to economy, to accumulation and thus inextricably to greed and capital. That 'the woman was arrayed in purple and scarlet colour' (*King James Bible*, 1769/2017) presents her as lavish and luxurious and rich as 'purple and scarlet were colours… not for the poor since the dyes producing them were very expensive' (Morris, 2009, p. 197). This presentation of immense wealth is furthered when she is described as 'decked with gold and precious stones and pearls' (*King James Bible*, 1769/2017), which 'points to liberal use of precious metal' (Morris, 2009, p. 198). Here she is imagined as wealthy, with her ties to Rome significant of her 'interpenetration of government and big business' (Jameson, 1990, p. xviii), one of the key facets of late capitalism.

However, Revelation as a whole and the Whore specifically do not and cannot go far enough to explore capital as responsible for extinction, rather the text merely foreshadows the destructive potential of capital. By applying the futurist view on the work, we see John's anxieties about capitalist growth and excessive consumption in the Roman Empire and can mirror them with the world today, a world post-atom bomb, and are thus able to see apocalypse as both its metaphorical characteristics and its reliance on causality are present. The text, however, mainly represents eco-anxieties of ancient Rome. After all, 'Greece and Italy… have suffered greatly from human occupation since ancient times' (Hughes, 1996, p. 1) because 'ancient people initiated a process of wearing away the environment that supported them…set in motion by economic, military and religious factors' (p. 3). Hughes adds to this with the damning first-hand testament that 'ruined cities surrounded by ruined land has long been common in the Mediterranean area' (p. 2). Even if we take the Futurist view of the text, that it prophesises our end times, John was still confined by his own understanding of the world – he could not, for example, speak of an atom bomb explicitly. As a result of this, Revelation's main focus is John's criticism of ancient Rome and her greed and immorality, and the futurist view allows us to envision this greed and immorality in the modern day. John foresaw the downfall of Rome because of the environmental destruction perpetrated by the Romans, and these criticisms foreshadow modern criticisms of global capitalism; the natural successor to Roman imperialism. Revelation unveils the possibility of global capitalism's destruction.

A more recent novel, ideally one written in the time of Mandel's late capitalism, was thus imperative to aid our exploration of both our definition of apocalypse, as well as exploring capital as the cause. Kurt Vonnegut's *Cat's Cradle*, originally published in 1963 during the period in which late capitalism was self-actualising, both follows the peak of the Necrocene and engages with it in an intriguing way – Vonnegut's ice-nine is directly related to the nuclear bomb.

The selection of *Cat's Cradle* comes not only due to its perfect situation in the era of late capitalism. The novel sees Vonnegut foray, not for the only time in his writing career, into the apocalyptic in a way that is hauntingly similar to the metaphor of Revelation, a foray that occurs also with the preceding novel *Mother Night* and succeeding novel *Slaughterhouse 5*. As stated by Calvert: 'The image sequences of darkness in *Mother Night* and of fire in *Slaughterhouse 5* follow closely the vision of apocalypse in the *Revelation* of St. John. The remaining key image… is water and this is supplied by *Cat's Cradle*' (1988, p. 53). Further to this, the novel contains 'explicit allusions to the final book of the New Testament' (DeCastro, 1998, p. 26), with one such example being 'the statement that "the sun became black as a sackcloth of hair" (Rev. 6: 12)… an image which can be identified with the darkening of the sky and the sun's transformation into a "sickly yellow ball" in Vonnegut's novel' (DeCastro, 1998, p. 26-27). There are also similarities regarding the narrators – or, rather, prophets. In *Cat's Cradle*, the narrator of the apocalypse is also called John (Vonnegut, 2008, p. 1), and 'it is the very destruction of the world that drives the narrator to write his book, to reveal to us literally *The Day The World Ended*' (DeCastro, 1998, p. 26). Also akin to Revelation, Vonnegut's work deals in fragmented image and metaphor. In the introduction to the Penguin Classics 2008 text, Kunkel states that the novel 'doesn't concern itself with the creation of a coherent world corroborated in all its details' (p. viii) and that 'th[e] book… is a funny and despairing vision of the last judgement done in comic-book style' (p. viii).

Cat's Cradle 'provides the reader with a warning, albeit satirical in style, regarding the manner in which human agency can bring about apocalyptic results' (Robinson, 2018, p. 42). Here, though, the human agency is not expressing greed, as the Roman imperialists of Revelation do, for the cataclysm 'arises from scientific experimentation conducted by a character whose work lacks a moral dimension (Robinson, 2018, p. 42) and, as a result, 'the actions of the scientists and the politicians bring about planet-wide destruction' (Robinson, 2018, p. 45). In the words of Zins, 'Vonnegut is warning of the apocalyptic consequences of the apotheosis of science and technology, of science and technology divorced

from a sense of moral responsibility' (Zins, 1986, p.173) and asks, in its damning apocalypse and simple satire, 'can science be rescued from a technocracy that blindly serves the nuclear state and exacerbates the militarism of the world?' (Zins, 1986, p. 173).

This is not to say that *Cat's Cradle* and Revelation are too strikingly similar. The texts differ on a few clear levels – first, in the purpose of their narrator-prophet. In Vonnegut's novel, the narrator-prophet begins with the intention to present 'the human side of the bomb' (Vonnegut, 2008, p. 5) and ends up, through his narration of *Cat's Cradle*, focusing on the human side of the Ice-Nine disaster – presenting immorality in science and immortality in the United States military, entirely removed from Christianity as a way of life. Meanwhile, John of Patmos is representing the immorality of Rome, but an immorality present entirely before science in its modern understanding, and an immorality shaped through the notions of Christianity. As discussed by Morris, it is addressing an empire in which 'oppression and wrong abounded' (2009, p. 22). Revelation is a text that yearns to present the necessities of faith in God and following of His Word. Meanwhile, *Cat's Cradle* is designed as quite the opposite – 'a satirical comment on religion' (Robinson, 2018, p. 47). After all, Bokononism provides 'bittersweet lies' (Vonnegut, 2008, p. 1).

In the novel, the character Dr. Felix Hoenikker is 'one of the so-called 'Fathers' of the first atomic bomb' (2008, p. 4) and is the creator of ice-nine, a form of crystallisation designed to freeze water and have 'a melting point of one hundred and thirty degrees' (2008, p. 33). This was originally posited as a way of freezing battlefields for marines but, due to its properties, the swamps would freeze, the streams would freeze, the 'rivers and lakes the streams fed' would freeze, as would the oceans (p. 35). And when rain fell, 'it would freeze into hobnails of ice-nine – and that would be the end of the world' (p. 35). Here Vonnegut is explicitly satirising the atom bomb – the creation of ice-nine, posited as an idea stemming from scientific curiosity as opposed to explicit destructive intent (though, of course, initially conceived as a way of making battle terrain easier to wage war upon), has potential to become world-ending. As a scientist says in the novel the day the bomb is dropped on Hiroshima, 'anything a scientist worked on was sure to wind up as a weapon' (p. 19). Ice-nine, just like the atom bomb, had the potential to destroy.

But Vonnegut is not working with metaphor in the same way Revelation is. Vonnegut's novel is distinctly postmodern, indisputably science fiction but, above this, satirical. According to Bogel, 'satirists find folly or wickedness in the world and then wish to expose that' (2019, p. 41). Griffin compounds

this in stating that 'satire [is] a moral art and [is] a carefully constructed and unified contrast between vice and virtue' (1994, p. 15) and insists 'a satirist… seeks to laugh men out of their follies' (1994, pp. 6-7). Vonnegut crafts a novel that utilises black humour to present its apocalypse, an apocalypse which 'is caused by a chain of events that all derive from men's blind faith in science and technology' (Fialho, 2020). Through this, Vonnegut is drawing parallels between his own narrative and the historical event of the atom bomb (and the potential for such an incident to happen again – 'Vonnegut… had reason to fear that he and his children might be incinerated… by atom bombs' (Kunkel, 2008, p. vi)). Thus, ice-nine becomes a signifier for destruction and destructive capabilities of weapons such as the atom bomb and of other weapons and devices scientists may invent in the future. *Cat's Cradle*, through its satire, becomes a kind of metaphor – a darkly comedic one, at that – and itself utilises defamiliarization to present its image.

Further to this, the causality within apocalypse cannot be ignored in the novel, just as it cannot be ignored in Revelation, and McBrien's notion of the Necrocene elucidates *Cat's Cradle* to a much greater degree than it ever could elucidate Revelation or, for that matter, any apocalyptic text pre-atom bomb, pre-late capitalism. Even my interpretation of Eliot's *The Waste Land* in my own piece 'What the thunder really said: Eliot's The Waste Land as a proto-Necrocene' (2023) is limited in that Eliot could only anticipate the Necrocene and the extinction-level capabilities of capitalism (akin to the anxieties of John the Divine) and he cannot truly wrestle with them as the Necrocene had yet to reach its apotheosis and late capitalism had not come into its own. Vonnegut, however, had lived through the creation and deployment of the atom bomb. Vonnegut had lived through the fire-bombing of Dresden which, though vastly different from the atom bomb, still provided him with first-hand experience of the horror of mass killing. He was all too aware of the capability of humanity to cause its own extinction, and he satirised this in the novel.

The Necrocene is tangible within the pages of the novel through the parallel between ice-nine and the real-world atom bomb. Within the story world, ice nine is created by one of the people responsible for the creation of the Little Boy bomb (though, where nuclear bombs kill the world through fire, ice-nine prefers, as its name might suggest, ice). In the words of McBrien, 'capitalism found in the atom bomb the dark watery reflection of its own image. It realised that its logic could only lead to one thing: total extinction. It realised it had become the Necrocene' (2016, p. 124). Ice-nine goes beyond this. It represents the destructive potential within capitalism now the Necrocene has reached its peak. As stated by Robinson, 'the novel is a commentary on the possible

negative consequences of scientific research' (2019, p. 44); Vonnegut is taking the capitalism that created the nuclear bomb and speculating, in satirical metaphor and black comedy, the dangers that could come next. Vonnegut is concerned with the end of the world, but also with the cause of it. By highlighting its cause, perhaps this writer could introduce a new idea into society and the end of the world can be prevented.

Conclusion

The use of McBrien's essay allows an elucidation of the Great Whore's sin in The Book of Revelation, shedding light on two chapters which, in the grand structure of the text, seem to be an aside from the main revelations given to John. The Great Whore represents humanity's addiction toward capitalist accumulation, presents the inebriation it causes in the people of the earth, shows the destruction it can and will cause in the end, establishes itself as the root, perhaps, of human sin. The text can easily be dismissed as a piece of literature written to deal with anxieties of the time, just as Vonnegut's characters in *Cat's Cradle* rely on 'the bittersweet lies of Bokononism' (2008, p. 1), the book's fictional religion, for comfort. However, we have viewed Revelation as written for end times still to come and hence the toxic presence of capitalism within the Great Whore's presentation is a damning testament to humanity.

McBrien's Necrocene opens up more than just visions of a capitalist end of the world in The Book of Revelation, but can draw attention to the various causes of the end in apocalyptic, post-apocalyptic and dystopian narratives as a whole – if indeed parallels can be found in a text, then capitalism is either the cause or one of the causes, among others. As previously illustrated, the causes of the end of the world in James Morrow's *This Is The Way The World Ends* (1987), Stephen King's *The Stand* (1990) and Margaret Atwood's *Oryx and Crake* (2003) can all be traced back to capital, often entangled with immoral science, if the texts are viewed through the Necrocene lens. The destructive ice-nine, which freezes the world at the end of *Cat's Cradle*, is nothing short of a cousin to the atom bomb, perhaps as close as a sibling, that is the supposed apotheosis of the Necrocene, the moment capital becomes capable of extinction.

Apocalypse is more than just a narrative that presents the end of the world. Nor is the end of the world apocalyptic in and of itself. The end of the world is not apocalyptic unless it warns of a coming disaster in metaphor or image, and that warning should also elucidate the cause of the disaster to its audience. Going forward, this understanding of apocalypse can be applied to other literary works, namely genre apocalyptic, post-apocalyptic and

dystopian. Through this, cause of apocalypse can be elucidated and the texts can have a more emphatic real-world impact.

It is my understanding, with the texts analysed herein, that the cause of the end of the world can, more often than not, be traced back to capital, accumulation and human greed and immorality. Capital begins to appear as the root cause of the end of the world, growing through science and greed, and thus apocalypse becomes more than the end of the world, more than simply an unveiling, but definable as an unveiling of the cause of the end of the world, often through metaphor. If we learn to view apocalyptic narratives, be they thousands of years old or contemporary, as metaphorical instead of thrillingly, gratuitously literal, the full power of apocalypse can be appreciated and the cause, whether real or imagined, literal or hypothetical, can be duly considered and thus have a real-world effect. Indeed, the elucidation of The Book of Revelation, brought about through McBrien's Necrocene, unveiled information to us. The relationship between science and technology and capital, elucidated in *Cat's Cradle*, unveiled information to us. Apocalypse, with its multi-layered metaphor, recurring symbolism, disconcerting defamiliarization, even satirical tone, demands to be decoded and understood to be truly apocalyptic. So, in the words of Kurt Vonnegut, writers are indeed a 'means of introducing new ideas into the society' (1985, p. 213), but readers are integral to this transmission. Without a reader to understand the metaphor and the symbolism, without a reader to understand the satire, there is no unveiling of the cause of the end. And without this unveiling, there is no apocalypse – there is only the end of the world.

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