

## About Time! The Abyss of the Future and End(s) of Subjectivity in (Climate) Dystopias

*Está na hora! O abismo do futuro e fim(fins) da subjetividade em distopias  
(climáticas)*

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**ABOUT TIME! THE ABYSS OF THE FUTURE AND END(S) OF SUBJECTIVITY IN (CLIMATE) DYSTOPIAS**

**Abstract:** As the climate emergency becomes tangible, its intractability within current paradigms suggests the need to envision and enact new “worlds” and forms of subjectivity. This has proven difficult, also in popular culture. In literature and film, dystopia and catastrophe are a frequent resort to narrate a post-climate crisis world. Building on scholarship critical of this tendency, the article zooms in on two dystopian novels, *The Water Knife* (Bacigalupi, 2015) and *La galassia dei dementi* (Cavazzoni, 2018), and contrasts the subjective positions these two “nightmares” project onto a future disaster – based on a melancholic mourning of loss, and on a shared condition of lack, respectively. The article argues that, while the former risks resuscitating established ways of “being human” – part of the crises that climate change symptomatizes –, the latter can facilitate imagining new and more just socio-ecological constellations.

**Keywords:** anthropocene, climate/environmental fiction, dystopia, environmental catastrophe, imagination.

**ESTÁ NA HORA! O ABISMO DO FUTURO E FIM(FINS) DA SUBJETIVIDADE EM DISTOPIAS (CLIMÁTICAS)**

**Resumo:** À medida que a emergência climática se torna tangível, a sua intratabilidade nos paradigmas atuais sugere a necessidade de visualizar e decretar novos “mundos” e formas de subjetividade. Isto também se revelou difícil na cultura popular. Na literatura e no cinema, distopia e catástrofe são um recurso frequente para narrar um mundo de pós-crise climática. Com base em estudos críticos dessa tendência, o artigo foca-se em dois romances distópicos, *The Water Knife* (Bacigalupi, 2015) e *La galassia dei dementi* (Cavazzoni, 2018), e compara as posições subjetivas que estes “pesadelos” projetam num desastre futuro – com base num luto melancólico de perda e numa condição partilhada de escassez, respetivamente. O artigo argumenta que, enquanto o primeiro corre o risco de ressuscitar formas estabelecidas de se “ser humano” – como parte das crises que as mudanças climáticas sintomatizam –, o segundo pode facilitar a imaginação de novas e mais justas constelações socioecológicas.

**Palavras-chave:** antropoceno, catástrofe ambiental, distopia, ficção climática/ambiental, imaginação.

When people lost hope, they sometimes lost their humanity, too  
*THE WATER KNIFE* (BACIGALUPI, 2015: 189)

## THE LOOMING SHADOW OF CLIMATE CHANGE

Climate change is here. Its impacts are quickly becoming tangible, and catastrophic climate change, just a few years ago considered a remote worst-case scenario, is uncannily becoming a reality we should prepare for. In spite of the fanfare that welcomed the signing of the Paris agreement in 2015, a warming of more than 2°C is increasingly likely (Raftery *et al.*, 2017), and this could lead to extremely dangerous impacts (O'Neill *et al.*, 2017; IPCC, 2018). The fires that brought hell on earth in California and the fury of Cyclone Kenneth that swept Mozambique are only two of the most recent examples of the devastating potential of global warming, and of what could materialise in the decades to come.

And indeed, climate change has become a widespread and pressing concern – (for a recent poll in European countries, see Eurobarometer, 2018). We have also seen signs of unprecedented mobilisation for climate action, notably with the school strikes launched by Greta and the Extinction Rebellion movement. The lexicon of a “climate emergency”, from being a slogan for radical activists and campaigners, has now become mainstream and is officially sanctioned by institutional actors. The UK Parliament’s declaration in May 2019 was a highly symbolic moment: symbolic in the sense that the declaration did not entail any direct commitments to action, but also in that it signalled a discursive shift in the British policy and political landscape, where until recently policy-makers tended to stay away from narratives they perceived as alarmist and attempted to “tame” their communication on climate change (Willis, 2017).

In the meantime, climate change and the Anthropocene – a term indicating a broader set of planetary transformations/crises – have become part of mainstream cultural production. This marks an important change. Amitav Ghosh’s *The Great Derangement* (2016) offers a thorough analysis of the difficulty literature encountered in signifying and imagining global warming. Ghosh identifies reasons specific to the modern form of the novel (such as the difficulty to weave non-human agencies into the plot), as well as broader cultural and political challenges to visualise and take seriously climate change. Things have definitively changed in the last few years, with the affirmation of “cli-fi” (science fiction focussing on climate change) as a genre in its own right, as well as with more generalist works engaging more frequently with global warming (for a critical review, see e.g. Johns-Putra, 2016; Nurmis, 2016; Streeby, 2018).

As literature and cinema are key sites where meanings and imaginaries are elaborated, shared and contested, this marks an important step forward. Yet, *envisioning*

ways to overcome the contradictions climate change symptomatizes is still proving challenging, with few successful attempts to articulate visions of new worlds and forms of subjectivity in the face of a warming climate and rapidly changing planet.

In particular, recent cultural production has struggled to find narratives to signify the climate emergency and the crises it represents other than via imaginaries of catastrophe and dystopia. One of the areas in which this proliferation of catastrophic narratives has been most palpable and problematic is the debate on so-called climate migration. The figure of the “climate refugee” has for many given a “human face” to the looming climate disaster, and visions on a future climate exodus have been mobilised by progressive as well as conservative voices (Bettini, 2013; Ransan-Cooper *et al.*, 2015). Such narratives often reproduce postcolonial imaginaries and arguably foreclose – rather than open – the space for envisioning and enacting new ways to tackle the planetary climate crisis and the losses (cultural, material, in terms of subjectivity) this will unavoidably entail. Rather than opening up for new subjectivities, they risk favouring a nostalgic restoration or shoring up of the “old” forms of subjectivities that have led to the brink of catastrophe. In this, as we will see, debates on climate migration are exemplary of the risks entailed by catastrophic narratives on climate change and the Anthropocene.

Against this background, this article explores the ways in which recent novels and movies that take issue with planetary/environmental futures and transformations have resorted to catastrophic imaginaries, and the way they signify and foresee what will come after “the end of the world as we know it”. While drawing on a number of works in the field, the article zooms in on two dystopian novels: Paolo Bacigalupi’s *The Water Knife* (2015) and Ermanno Cavazzoni’s *La galassia dei dementi* (2018). The two books are chosen as they envision very distinct post-catastrophe worlds. We will contrast the forms of reason and space through which the world is understood, experienced and navigated, as well as the role of lack and loss in the character’s subjectivities. The aim is to reflect, in the last instance, on the distinct ways in which the two novels invite their reader to emotionally “digest” the contradictions entailed by the crisis of humanism and modern subjectivity of which climate change, and more broadly the Anthropocene, are symptoms.

### **A FUNDAMENTAL CONTRADICTION, A CRISIS OF IMAGINATION?**

Critical scholarship in the social sciences and humanities has successfully made the point that climate change is not “merely” a scientific or technological problem to be solved (Vanderheiden, 2008; Jasanoff, 2010; Malm, 2016; Hulme, 2017; Sörlin and Lane, 2018). Importantly, the suggestion that climate change is a social and cultural phenomenon, rather than only a scientific, technological or economic issue, is not “just”

a politically correct call to broaden climate debates. It does not (only) entail accommodating for non-rational, “traditional”, or spiritual expressions in a domain dominated by a scientific register. Rather, it suggests that, as succinctly put by Kathryn Yusoff and Jennifer Gabrys (2011: 517), “anthropogenic climate change is as much a political, social, and cultural event, as it is a scientific one” (Yusoff and Gabrys, 2011: 517). Contextual meanings, imaginaries and values are part of what climate change really is, rather than a superstructure through which biophysical phenomena are narrated or mediated. In turn, this suggests a relational understanding of imagination, which

rather than being the site of division [...] is a site of interplay between material and perceptual worlds, where concepts cohere, forces pull and attract, and things, discourses, subjects, and objects are framed, contested, and brought into being. (Yusoff and Gabrys, 2011: 517)

Cultural manifestations and imagination/imaginaries thereby assume an ethical and political dimension, as they are pivotal to envisioning and building futures, different ways of approaching climate change, and ultimately new ways of being that go beyond the boundaries of present socio-ecological constellations (Skrimshire, 2010; Yusoff and Gabrys, 2011; Milkoreit, 2017; Streeby, 2018).

If imagination is a key dimension of the politics of climate change (and more broadly the Anthropocene), then why has it proven so difficult to imagine new worlds and subjectivities? A first tentative answer: the magnitude and profound nature of the crisis make it difficult to grasp and act upon it, and even more to envision what will come “after the end”. Timothy Morton’s notion of “hyperobject” (2013) offers a theoretically sophisticated tool to start conceptualising the challenge: climate change is an entity so distributed, ramified and pervasive in time and space that it cannot be contained nor localised. As an hyperobject, it is a “sticky” entity whose viscous impacts have deep roots in the past and will stretch into the coming centuries, and stubbornly reemerges with its sheer shadow looming over and saturating the human horizon. And because of that, it resists enclosed signification and representation.

A few reflections on the concept of the Anthropocene help elaborating further on the nature of the crises climate change entails as well as on its resistance to representation. Seen as one of the symptoms of the Anthropocene, climate change becomes part of a fundamental, traumatic (and thereby not easily representable) contradiction revealing strains in the very edifice of Western civilization, in dominant socio-ecological constellations and planetary political economy. To be sure, the concept of the Anthropocene is problematic and contested. The standard and rather unreflective

description of the Anthropocene as the age of “mankind” [sic] (Crutzen, 2002) most obviously has a gendered dimension, and elevates to the position of geological agent a problematically universalised humanity. Moreover, the story of the Anthropocene as one in which humanity passes a discrete threshold leading into a new *époque* separated from what *was before*, resides on a linear view of time that flattens the world along one single progressive history. Thereby (mainstream) narratives on the Anthropocene obscure the contrasting histories that co-exist and collide now as much as they did in the past. Behind a unified human subjectivity and one “single” world, such narratives mask crucial differences and inequalities, notably along class and racial lines.<sup>1</sup> Still, with these important qualifications, the Anthropocene – as a problem field rather than as discrete threshold or *époque* – can open up space for a renewed questioning of the (Western) civilization of which climate change represents a systemic contradiction. And for a destabilisation of its subject, the modern, Western, white, capitalist *Anthropos*, a “man” (or rather, fantasy thereof) whose hubris and violence have been denounced in particular by critical feminist scholarship (e.g. Merchant, 1989; Haraway, 1991). And indeed, the condition of the Anthropocene is said – most influentially through the post-human suggestion – to carry the potential to hit a final blow to that fantasy (Clark, 2011; Braidotti, 2017; Colebrook, 2017; Povinelli, 2017). As a symptom of the Anthropocene, climate change can be seen as a systemic crisis, and more deeply as a crisis of established ways of being human. In this light, the difficulties in representing and acting upon climate change result hardly surprising. Facing and visualizing the impacts of climate change and of the transformations brought about by the Anthropocene (or Capitalocene, Chthulucene or however we choose to describe the current planetary predicament), requires a radical imaginative effort. But while the Anthropocene, inviting to delve into geological depths and embrace a planetary scale, seems to dramatically extend the temporal horizon for social action and ethical judgement, quite paradoxically this often results in an extension into the future of the very socio-ecological relations that dominate the present (for a sharp analysis of the “Environmental long view”, see Skrimshire, 2019). This has proven a big challenge, and the narratives that have emerged to signify the looming crises (in popular culture, in policy discourse) are often regressive rather than forward-looking.

### **ENVIRONMENTAL CATASTROPHE AS MODERNIST NIGHTMARE**

One of the most recurring and heavily contested tendencies in scholarly and popular cultural accounts of climate change and the Anthropocene is the resort to dystopian and

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<sup>1</sup> This line of critique has been developed by numerous authors (e.g. Malm and Hornborg, 2014; Haraway, 2015; Bonneuil and Fressoz, 2016; Colebrook, 2018; Swyngedouw and Ernstson, 2018; Yusoff, 2018).

catastrophic narratives. This has been the case across academic, literary, visual and cinematic genres (for reviews, see Skrimshire, 2014; Kaplan, 2015; Nurmis, 2016; Svoboda, 2016; Bulfin, 2017). There is now a substantial body of work that analyses, conceptualises and criticises such choreography of narratives on an impending planetary disaster, catastrophe or apocalypse (Dörries, 2010; Skrimshire, 2010; Swyngedouw, 2010; Žižek, 2010; Williams, 2011; Lilley *et al.*, 2012; Chaturvedi and Doyle, 2015). While an account of the emersion of such narratives is beyond the scope of this article, a few aspects should be highlighted, as they will inform the analysis carried out in the following.

To begin with, catastrophic narratives and the looming spectre of collapse have been a recurring and foundational trait of modern Western discourses on the environment, beyond and before climate change (Cosgrove, 2008; Lilley *et al.*, 2012; Elliott, 2016; Bettini, 2018). Since the birth of modern environmental discourses, the idea of environmental catastrophe has cast a vista over the possibility of a human-induced planetary collapse. Catastrophic narratives have been mobilised around all key topics of concern for environmentalism. Emblematic issues such as mass species extinction, nuclear contamination, the ozone hole, desertification, and more recently climate change, have all fuelled vivid dystopian visions, in popular culture as well as in academic elaborations (Mol and Spaargaren, 1993; Lilley *et al.*, 2012).

Moreover, contemporary discourses on environmental collapse or catastrophe are quintessentially modern and signify a crisis of Western modern civilisation and its reason, in at least two senses. First, they convey the alarming discovery that Western civilisation, since at least the European Industrial Revolution, has had irreversible impacts on a planetary scale, potentially threatening the survival of vital functions of the Earth system and of human societies (Jamison and Hård, 2005; Warde *et al.*, 2018). Second, the signs of the looming disaster have been captured and represented by one of the key manifestations of modern reason: science. The alarm bells that have mobilised Western environmental consciousness since the 1960s have first been rung in labs, with environmental problems being modelled and codified in computer models, detected and visualised through satellites pictures (Jamison, 2001; Forsyth, 2003; Ehlers and Krafft, 2006; Lövbrand *et al.*, 2009). And the Earth System Sciences have been instrumental in generating a field of visibility for the contemporary planetary concept of “the Environment”, as well as for its possible collapse (Lövbrand *et al.*, 2009; Warde *et al.*, 2018). Indeed, key milestones of environmental consciousness and activism<sup>2</sup> all mobilise forms of veridiction based on scientific tools and evidence (for a thorough

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<sup>2</sup> Such as Rachel Carson's *Silent Spring* (1962; Boston: Houghton Mifflin Company), Paul Erlich's *Population Bomb* (1968; New York: Sierra Club/Ballantine Books), and the Club of Rome's *Limit's to Growth* (1972; New York: Universe Books).

account of this point, see Warde *et al.*, 2018). The role of science and the field of visibility it produces is exemplary in the case of climate change (Hulme, 2009; Edwards, 2010).

All in all, environmental catastrophe has a Promethean and conflicted character, signifying a tension in which Enlightenment's reason, in its objectified conceptualisation of "nature" and the planet as fundamentally indifferent to human action, is called into question by one of the expressions par excellence of that same reason (science), because of something (technology and industrialization) made possible by that very reason. This fractured and conflicted position reveals a crisis or contradiction carving the very foundations of modern Western subjectivity, opening up ticklish questions about what would be left of the "human" once the Anthropocene kicks in. Such contradiction, as conceptualised for instance by post-human philosophy and other critical interventions on the Anthropocene, points to a possible crumbling of established modern forms of subjectivity and ways of being human (for a collection of recent interventions, see Grusin, 2017).

The recourse to dystopia in order to signify a planetary climate or environmental disaster has been interpreted as a sort of "apocalyptic sublime" (Nurmis, 2016) – a quasi-transcendental, blinding encounter with "the end", an attempt to anticipate the experience of the moment of revelation in which the worst "finally" takes place and disrupts the present societal fabric. Claire Colebrook offers a slightly different and perhaps more convincing interpretation of imaginaries of an environmental catastrophe/dystopia, reading them as symptomatic of a stubborn attachment to current forms of subjectivity, and of the difficulty to imagine new forms of world-making. In Colebrook's words (2018: 104), "these narratives suggest a paucity and timidity of the imagination, as if the destruction of how we live now could yield nothing but horror, as if the annihilation of personhood were almost unthinkable except by way of catastrophe". As if there were no alternative: either the present way of being (human), or a chronic condition of disaster. Importantly, this reading also emphasises the perils embedded in the portrayal of a homogeneous, universalised humanity as agent in the Anthropocene already highlighted above. Or better, of the enduring phantasy of the human, which masks the exclusions it builds upon, and conceals the fact that, for many peoples in the world, the disaster projected in the future has already happened. The world that is supposed to end has never been there for many, for whom "the flood came long ago, and it was their people's blood" (Chaturvedi and Doyle, 2015: 208).

### **THE HUMAN FACE OF THE ANTHROPOCENE?**

In debates on so-called climate-migration the lure of catastrophic imaginaries and dystopia has been remarkably strong, and the paucity of imagination particularly striking.

The figure of the climate refugee is a key *topos* in the repertoire of climate dystopia or catastrophism (Bettini, 2013), and debates on the links between climate change and human mobility are a case in point illustrating the challenges to imagine new worlds.

To be sure, if we take the possibility of 3 or 4°C warmer planet seriously, we can expect radical changes in the very ways in which humans understand, plan and experience their (im)mobility. The nexus between climate change and mobility opens key questions about future socio-ecological constellations and reconfigurations of the links between subjectivity, mobility and territorialised sovereignty (Baldwin and Bettini, 2017). Human mobility indeed figures very prominently in visions about climate future across genres – ranging from academic to films and novels, and even comics. However, when looking at the debates on the matter, it is hard to find many progressive visions living up to the challenge. The pendulum in debates on climate and migration seems to oscillate between two equally problematic poles: Malthusian, apocalyptic alarmism on looming hordes of climate refugees (cf. Baldwin, 2013; Bettini, 2013), and neoliberal technocratic phantasies, which make climate change into another vehicle to foster docile subjectivities prone to planetary capital accumulation. Emblematic of the latter are visions and agendas on “migration as adaptation” or on so called “planned relocation” (Felli, 2013; Bettini, 2014; Methmann and Oels, 2015; Turhan *et al.*, 2015).

The insistence on toxic narratives that regurgitate colonial archives, Malthusian nightmares and racialized imaginaries (Baldwin, 2016a; Giuliani, 2016; Telford, 2018) can be seen as an escape from the difficulty to envision (or embrace) different futures and ways to be (im)mobile. Seen as a symptom of climate change and the Anthropocene (Bettini, 2019), climate migration becomes a question that signifies a “crisis of humanism” (Baldwin, 2017a), a profound rupture in the civilisation that has produced climate change.

### **THE END WILL (NOT) BE TELEvised**

Novels and movies have been key sites in which these imaginaries and (lack of) imagination have manifested, and in many cases they corroborate the critique against dystopian and catastrophic imaginaries summarised above. However, dystopian imaginaries can be mobilised with different effects and motives, and the experience of disaster in a fictional world can lead to different outcomes. The rest of this article, while referring to a series of popular culture works, focuses on two novels, Bacigalupi’s *The Water Knife* (2015) and Cavazzoni’s *La galassia dei dementi* (2018). These two novels share several traits: they are dystopian and narrate a post-disaster world in stark terms, leaving little or no space to the optimism that mainstream and techno-managerial discourses on climate change and the Anthropocene attempt to infuse. Human efforts

have not been successful in avoiding the worst, and the world as we know it is gone. But, in their journey through a world in ruins, the novels produce different effects, and are rooted in very distinct vistas on what would or could happen to human subjectivity. By contrasting the forms of reason that guide the novel's characters, the spaces and field of visibility through which the two fictional worlds are understood, inhabited and navigated, we will appreciate how the two novels do different things with the "ghost" of modern ways of being human: one is stuck on a position of melancholic mourning of a loss, the other explores (in a quite hallucinated voyage, to be fair) what a universalised condition of lack would look like in the aftermath of disaster.

### ***THE WATER KNIFE***

Bacigalupi's *The Water Knife* (from now on TWK) describes in remarkably realistic traits what could happen in the United States once climate change kicks in. In a country ridden by disasters, turmoil and chaos, TWK zooms in on the violent conflicts for water rights that make a dried-up Southwest into a war zone. Affected by chronic drought, the region has become the battlefield for thirsty water companies who resort to any means in order to secure access to water supplies and defeat their competitors. In the background, the population is on the verge of misery, with the exception of an affluent minority that finds refuge in high-tech, self-sufficient and eco-friendly towers. The paths of the novel's three main characters crisscross as they navigate through the complex geographies of winners and losers created by the water wars. Angel is the "water knife" agent (hitman, saboteur, spy) for the Southern Nevada Water Authority, a ruthless water company in fierce competition with its rivals from Arizona and California to secure access to the "blue gold". Maria is a stranded girl from Texas, one of the many refugees displaced from their cities left without one single drop of water by chronic drought, poor water management, and predatorial water companies. Lucy is the book's main "moral voice", a brave reporter investigating the wake of bloody murders left by the dark intrigues of water companies.

Key cli-fi tropes are present, with the usual choreography of chaos, scarcity and conflict (Johns-Putra, 2016; Svoboda, 2016): the flourishing of "disaster capitalism"; evil corporations fighting for dominance through exploitation and ruthless violence; the almost-failed state and institutions, with the rule of law succumbed to human greed and brute force in the turmoil caused by climate change; the flocks of destitute, debased and vulnerable refugees; the tormented, nostalgic and somewhat heroic "voice of truth" narrating the extent to which greed and lack of foresight have led to an irreversible climate catastrophe.

TWK (as a number of Bacigalupi's novels) can be situated in the emerging field of novels and movies achieving what many – including Ghosh – have called for. TWK takes

climate change seriously. The novel's plot is set against a complex and realistic backdrop in which the disruptive impacts of global warming are part of a "new normal" and intersect with a series of political-economic dynamics, producing new geographies of inequality and capital accumulation. The dystopian scenario imagined by Bacigalupi is uncomfortably plausible: the brutal political economy of resources, the uneven development and the misery the book depicts appear as a continuation of contemporary dynamics of socioecological (re)production, capital accumulation and social marginalisation (Davis, 1999). The future Bacigalupi pictures looks like a direr and even more violent version of the present, a careful extrapolation from current trends, a fictionalised version of academic forecasts of a world weathered by drought, sea level rise and more frequent and violent extreme weather events (Bettis *et al.*, 2017; O'Neill *et al.*, 2017; IPCC, 2018). While the novel contains futuristic elements (such as some science-fiction medical treatments that save Angel's life, or the technologies that make the elites' towers self-sufficient), these "signs of the future" are nested in the texture of a world that at a first glance looks like the present. The verisimilitude of the future is an important ingredient of TWK's impact, and it is a strategy employed in several of Bacigalupi's novels (as well as by a number of classic and more recent dystopian works – e.g. Orwell's *1984* and the television series *Black Mirror*).<sup>3</sup> The uncanny proximity of the dystopian future with the present helps to produce an impact on the reader, favouring an internalisation of the danger and thereby an anxiety that, in Bacigalupi's intention, can contribute to spurring the action (on this point, see Milkoreit, 2017: 13) .

Another element of interest is the "cartography of vulnerability" the novel draws. The setting is the Southwest United States, and this can represent an important inversion compared to the tendency to project the impacts of climate change (with the related repertoire of misery and marginalisation, chaos, risk and danger) "elsewhere", in some "Othered" landscape in the global South – such as Bangladesh, an African megacity or dryland (Manzo, 2010; Giuliani, 2017). While the brunt of climate impacts risks being borne by groups at the fringes of global capital, in particular in the postcolonial global South (Roberts and Parks, 2007; Nixon, 2011; Chaturvedi and Doyle, 2015), many critical interventions have stigmatised the ways in which a victimization of the vulnerable global South facilitates the reproduction of the inequalities from which such differential vulnerability stems (Farbotko, 2010; Manzo, 2010; Baldwin, 2016b; Rothe, 2017). The localisation of vulnerability and danger in the global South often builds upon and reproduces instances of racialization, Othering and orientalism. Gaia Giuliani (2017) elaborates on the dichotomy between "places of disaster" and "places for disaster",

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<sup>3</sup> Orwell, George (1949), *1984*. London: Secker and Warburg; Barney Reisz (2011), *Black Mirror*. Zeppotron, Channel 4 Television Corporation, Gran Babiéka. Channel 4/Netflix.

highlighting how the naturalisation of “non-West” contexts as an “out there” where disasters per default occur, in effect constructs these places as colonial objects (Giuliani, 2017). Widespread narratives on hordes of destitute escaping the climate ruins in the global South (on these narratives, see e.g. Bettini, 2013) are in line with Giuliani’s analysis, as they displace to an “out there” the impacts of climate change and the responsibility for the turmoil those might cause. TWK operates a potentially interesting overturning of such binary. The large numbers of refugees on the move in the novel are in effect internally displaced, uprooted from the dried-up states of Southern regions of the United States. This “brings the disaster home”, proposing a cartography of vulnerability that does not directly reproduce colonial imaginaries locating the chaos (to be governed, immunized, restrained) in the global South. And this operation can be seen as a way to make climate change more directly visible and tangible also for publics in contexts such as the United States, and, through the anxiety this generates – that is the intention, at least –, spur action to address climate change and avert its direst impacts (for an argument along similar lines, see Streeby, 2018). We will come back to and problematise this positive reading.

When considering the personal stories and subjectivities involved, TWK’s characters are confronting the crumbling of the world as they (we) know it. They face this condition with a mixture of melancholia and nostalgia, mourning what is lost – something clearly emerging in Lucy’s dialogues with her sister. It is a condition marked by the impossibility or unbearability of the present, a wasteland in which the last remnants of humanity are destined to soon perish. This societal condition of caducity is embodied in Lucy, who lives in the constant awareness that her dangerous journalistic investigations will likely lead to her death. Notably, while not free from some heroic tints, this awareness of an imminent end (at the individual level, but also collectively) is weaved in an unsutured sense of loss. Lucy and the other characters enact a melancholic way of “living in the ruins” (Tsing, 2015). This experience in TWK is not conducive to the emergence of new ways of being, or the acceptance of loss. Rather, Lucy seems to be confined in a residual condition, where there is space only for a nostalgic mourning of a lost subjectivity and humanity. Nothing takes its place.

One of Lucy’s most painful reflections is symptomatic of this melancholic position and opens up to even more uncomfortable reflections: “when people lost hope, they sometimes lost their humanity, too” (Bacigalupi, 2015: 189). At a first glance, this sentence bemoans the despair that characterises an existence in dire conditions of misery and chronic precarity, on the edge of survival. Climate change has undermined the material conditions of life as well as any hope in a decent future. And hope is conventionally a positive attribute of humanity. But what hope was lost, and by what

“people”? The “people” who used to have access to the now lost world are in fact a (relative) minority endowed with privilege. Does this mean that those already excluded from that privilege (and who lived “in the ruins” already before the catastrophe) cannot hope – and thereby embody an “incomplete” humanity?

This critique can be articulated further by considering a less optimistic reading of the internalisation of the space of disaster operated in TWK. In the novel’s introjection of vulnerability and climate chaos into the United States territory, Hsuan Hsu and Bryan Yazell (2019) detect a form of structural appropriation. This term (derived from the concept of cultural appropriation) describes “a process in which the world-threatening structural violence that has already been experienced by colonized and postcolonial populations is projected onto American (and predominantly white) characters” (Hsu and Yazell, 2019: 347). According to this reading, through the transposition of disaster onto the affluent (and their enrolment as key characters in the dystopian plot), structural appropriation masks the role of racialised violence and colonial oppression in the production of the unevenly distributed catastrophe and the dramatic condition it creates. In other words, “bringing disaster home” risks masking the different histories and positions from which the catastrophe has been and will be experienced. Borrowing from Colebrook’s poignant critique of catastrophic Anthropocene or post-climate imaginations, even Lucy’s mourning seems to “reveal nothing more than our attachment to a world that relies upon, generates and almost pornographically purveys the wastelands we think of as catastrophic and futural” (Colebrook, 2018: 107). Wastelands that in fact are already “here” rather than in the future, at least for the “majority world”. The effect risks becoming an injunction to restore, before it is too late, the form of subjectivity that has led “humanity” to the brink of catastrophe, and from which many (including colonized and postcolonial populations) have in fact been excluded.

### ***LA GALASSIA DEI DEMENTI***

Introducing Cavazzoni’s galaxy is not straightforward, as its post-catastrophe world is less conventional than the one we wander through in TWK or in many cli-fi books. The title of Cavazzoni’s novel – *La galassia dei dementi* (from now on GdD) – roughly translates as “the demented galaxy”, which conveys the overall spirit of the book and hints to several traits that make it very salient in the context of this article. The novel fast-forwards four centuries, to a future in which both human civilisation and ecosystems are in ruins. An alien invasion has destroyed most cities in the world, and a series of mysterious deflagrations (likely related to the intensified human impacts on the environment) have brought the planet on the verge of collapse.

While we understand that all kinds of disasters and plagues have hit the earth, the book does not reveal an exact truth about the causes of such decline. We only get rather vague and confused hints. This distinguishes GdD from many dystopian novels on environmental (and in particular, climate) catastrophe. The contrast is starkest to Naomi Oreskes and Erik Conway's *The Collapse of Western Civilization: A View from the Future* (2014). The core of this novel is indeed a "revelation" of the pathway between "now" and the catastrophe. The novel shows in great detail how things have gone wrong, sketching a fully plausible scenario of how a dystopian future could emerge from today's trends: human civilisation was unable to face and act upon climate change, ignored the scientific evidence and thereby caused its own collapse. Humanity's inability to rectify its course is narrated with profound regret (or guilt?). The denunciation and admonition to the present is severe, while not particularly original. Also, the morale of the story (which can be summarised as: "we should have listened to climate science and acted together to avert dangerous climate change, but we have not") is unambiguous and reproduces a moralistic standpoint ("we should save the world") common in environmental discourse. In GdD things are very different. There is no omniscient narrator faithfully retracing the pathway to the catastrophe. GdD does not point to a clear cause of the decline, and science does not come to the rescue telling us what has gone wrong. This puts the reader in a very different position compared to many works in the genre, including *TWK*. As we have seen, one of the salient traits of the classic invocation of the environmental catastrophe is the tormented relationship to modern reason and its technological embodiments. If the catastrophe is caused by the technology and impacts made possible by modern reason and science, it is also that same reason (via science) that detects the signs of the catastrophe and offers a chance to avert it (see discussion above). In GdD, the catastrophe is here, but there is no revelation, no open field of visibility rationalising its occurrence. There is no "big Other" that can be blamed for the disaster. Instead, what we find is confusion and uncanny misunderstanding.

This lack of reason – one of GdD's key traits – also powerfully emerges in the spatial confusion in which the novel's characters (and thereby readers) roam. Many cli-fi and dystopian novels (as environmental discourse in general) owe part of their dramatic effect to the existence of a planetary field of visibility that makes the disaster representable and mappable: this allows the collapse to be intelligible, regrettable in its scale and "enjoyable" in its spectacle. Take for instance Kim Stanley Robinson's *New York 2140*:<sup>4</sup> the plot is firmly anchored in New York, but characters view, know and are connected with the climate catastrophes affecting the rest of the world. Also, *TWK*'s plot

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<sup>4</sup> Robinson, Kim Stanley (2018), *New York 2140*. New York: Orbit.

is localised in the Southwest of the United States, but nonetheless the reader is given a clear world geography and map. The space in which we are immersed in GdD is one with few (if any) coordinates and very limited horizons. The effects of GdD's shrunk field of visibility are powerful. As readers, we know the novel roams across the plains of Northern Italy, but not much more. Characters and readers alike float in a "demented" space, with no clear map nor direction, no planetary vista over the ruins, no global "spectacle" to observe.

GdD mocks another *topos* of many dystopian works, that is the *promised land*, a space of salvation/redemption. Consider two examples from cinema. In the movie *Mad Max: Fury Road*,<sup>5</sup> the Citadel is a fortified village built on the only known source of uncontaminated freshwater in Wasteland. While it is the stronghold of the movie's foe, "the multitude" could reclaim the Citadel and its water could be used to bring back to life the otherwise sterile earth – and here lies the promise for a better life. *Waterworld's*<sup>6</sup> plot revolves around the search for "Dryland", the only *terra firma* in the movie's post-deluge world, which has been almost totally submerged by the melting of polar ice caps. An "elsewhere" exists also in TWK: Lucy has long video calls with her sister, who lives in the safe, affluent and water rich enclaves of the North, which have been able to shield off from the worst impacts of climate change. These elsewheres make the world make sense so to speak, and give hope. GdD also has an "elsewhere" some characters strive for, the "Robot's free land". But that also turns out to be a misunderstanding. When they finally get there, – in a strong anti-climax – droids find just another meaningless corner of the wasteland, where they are stuck rather than liberated.

This lack of coordinates also shapes the forms of mobility we encounter in the book, which again contrast with TWK. In the United States described in TWK we see the rather ordinary opposition between the elites' mobility and the hardship to which "climate refugees" are exposed to. This does not reproduce narratives about hordes of climate destitute from the global South, threatening to put affluent countries under siege (on these narratives, see e.g. Bettini, 2013). In TWK, refugees are internally displaced, uprooted from the dried-up plains of Southern states. Still, in TWK mobility is a direct extension of current patterns, made even more brutal and unequal by the effects of climate change. The forms of mobility in GdD are of a very different, unsettling character. People and droids move without clear directions to follow, with no coordinates orienting their roaming. Characters often jump onto abandoned vessels floating in the air, adrift and controlled by the direction of winds. While this is hardly an agenda or desirable vision

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<sup>5</sup> George Miller (2015) *Mad Max: Fury Road*, Warner Bros., Village Roadshow Pictures, Kennedy Miller Productions, RatPac-Dune Entertainment.

<sup>6</sup> Kevin Reynolds (1995), *Waterworld*. Universal Pictures, Gordon Company, Davis Entertainment, Licht/Mueller Film Corporation.

for new ways of being (im)mobile (and even less a recipe to address the current political struggles against borders and for migrants' rights), it operates an uncanny inversion, a provocation about the possible disruption of currently dominant articulations of the links between citizenship, territory and mobility. One that, while we look over the brink and into the ruins in a fictional experiment, somehow escapes both Malthusian fears that pathologise mobility and migrants along colonial and racialised lines, and neoliberal fantasies about the disciplining and harnessing of mobility.

Another displacement operated in GdD concerns the relationship between human subjectivity and technology, droids and Artificial Intelligence (AI). Machines have taken over the planet imagined by Cavazzoni. Automated industrial systems have survived the series of catastrophes that hit the planet and still produce robots and droids, which in turn sustain societies and their infrastructures, providing food and other resources. Humans have thereby been freed from work. Assisted by robots in everyday activities, they are now devoted to clueless, parasitic activities. The first character we encounter, Hanz Vitosi, collects ancient coat hangers, his wife Ena gathers buttons, while their neighbour's passion is for shoetrees. At a first glance, this scenario would seem to reproduce widespread concerns that in the future advanced machines and AI could dominate, render superfluous and de-humanise humans. However, Cavazzoni's move is far more subtle. While in GdD humans are indeed parasitic and rather demented, there is blurring of humans, machines and AI, with the latter neither ruled by "reason" nor calculation. Rather than reproducing the dystopian imaginary of evil machines taking over (see for instance *The Matrix* franchise)<sup>7</sup>, what we find is a chaotic world in which machines and humans become difficult to discern, both lost and carved by a structural lack. The complex systems that harmonised and oriented droids, robots, and machines have partially stopped working, and characters find themselves confused and astray in a world deprived of coordinates. The production and maintenance of the infrastructure (e.g. a fully automatized and efficient agriculture handled by machines), which previously worked smoothly, has now "gone mad". In this context, the behaviour and reactions shown by AI and droids appear all too similar to those of humans, rather than of cold machines.

Confusion, lack and internal contradiction characterises the qualms and adventures of one of the novel's main characters, Xenofon, a lethal war droid with a glorious past of battles and a cast-iron sense of discipline hard-wired in his/its "essence". As the war is over and he/it is not receiving any commands to execute, the Xenofon is lost. He/it lacks a compass orienting his/its behaviour and giving it a meaning, so he confusedly wanders

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<sup>7</sup> Wachowski, Andy; Wachowski, Larry (1999-2003), *The Matrix*. Warner Brothers Pictures.

in a world suddenly become meaningless. In his estranged roaming, the Xenofon is also puzzled by his/its attraction to Dafne, a seductive housemaid droid that has left her/its previous “home” after a fire. The narration of this encounter and impossible affect is often hilarious. A series of misunderstandings, mismatched expectations, interior qualms and failed acts make the interactions between the Xenofon and Dafne both comic and uncanny. In one passage, the war droid shares his/its reflections, puzzled by conflicting “drives” and paralysed in the face of unexpected stimuli:

The Xenofon was torn. That Dafne had left an impress onto his circumstantial memory, but not like he could do anything about it, he had not received adequate instructions for that. [What could he do of her?] Not war usage, he thought – that is, he processed information to reach a decision – anti-mine usage? [...] not really, she is too light and friable [...] For small technical maintenance tasks [...]? She seemed to lack the needed horse power and componentry notions [...] Electric charge rebalancing function? Well, this could work, as with Dafne a few inches away or in contact with him, he felt that the electrons in his microcircuits settled back into place, generating the state classifiable as optimal. (Cavazzoni, 2018: 253; author’s translation)

This situation creates in the droid a profound confusion, as he/it encounters an unbridgeable gap that has opened between the new conditions he/it is experiencing (the stimuli he/it is receiving) and his/its “nature” (the tasks and behaviour he/it is programmed for). This profound split and lack carving machines casts a very provocative glance onto human subjectivities and their future horizons. The distinction between machine and human is blurred by the emergence of a common condition of lack.

Pushing the reading slightly, we can say that what is at stake here is an unsettling of nostalgia for (lost) modern subjectivity, with lack characterising the “subjectivities” of both humans and non-humans. Cavazzoni’s provocation sets GdD apart from many academic, literary and cinematic accounts, in which what shines through the loss created by an environmental collapse or a machinic take-over is the very “essence” of a positively defined humanity. In the ruins created by environmentally-induced misery or catastrophe, or under the domination of powerful machines – the little that is left (or returns) of the human is a distilled version (the last few, most precious drops) of modern subjectivity. We find this in (often nostalgic) glimpses that emerge through noble feelings, and often in acts of resistance against an oppressive and consistent Big Other; glimpses of a human that is at the same time ethical and moral, rational and intelligent, but also emotional – in contrast to the cold and amoral machine. In TWK, Lucy’s figure matches

this typology. Quite surprising, this return of/to the human can be identified even in more daring and experimental works, including *Borne*, one of VanderMeer's "posthuman" masterpieces (2017).<sup>8</sup> *Borne* leads the reader through a hallucinated exploration of a post-catastrophe future. In a contaminated and rewilded New York, genetic experiments have broken out of greedy corporations' labs and now terrify the city, largely controlling it. In an intricately plotted (in some respects, resembling GdD, but with less irony) we encounter a forest of minor – we could say, subaltern – stories of characters enduring life in the ruins. In the story of the novel's main character, Borne, a strange creature escaped from a lab, we find a hallucinated reconfiguration of human and non-human interactions, a nightmarish but potentially productive recasting of the latter. And yet, even this novel seems to reinstate modernist forms of humanity. What reemerges at the end of the book is the recreation of a nurturing *family*, based on affection, memory, and the "return" to a rather (hetero)normative affective order (for a similar reading of McCarthy's *The Road*, see Baldwin, 2017b). In a more austere academic register, Gillian Rose (2017) sharply diagnosed a tendency to resuscitate the very fantasy of the human that is said (or feared) to be on the way out in academic accounts of the forms of post-human subjectivity expected to emerge with the spread of the digital. As Rose (2017) notes, in scenarios about a digitalised world (which often take dystopian tints), the last glimpses of agency resisting the blind instrumental rationality of machines are quintessentially modernist forms of humanism. As if imagining the fading of modern subjectivity resurrects and dignifies its very fundamental elements. Elements of the fantasy of modern human subjectivity and reason that – at least since the Freudian discovery of the unconscious – have been heavily questioned.

Cavazzoni offers a more unsettling vista, one in which the displacement of the differentiation between human and machine can represent a powerful destabilisation of the fantasy of (human) subjectivity as based on solid, dense grounds, giving way to one based on lack.<sup>9</sup> We have already seen several ways in which GdD complicates the picture, e.g. through the figure of the Xenofon. Another very successful story in GdD is that of the Immortals, a group of seven droids of the highest intelligence, who for a long time oversaw the governance of the whole world (or at least, so we are initially told). The Immortals have recently withdrawn from their role as they felt *offended* by the lack of gratitude and recognition shown by humans. The pride on which this withdrawal is based, as well as the clumsy attempts by the Immortals to get the recognition they think they deserve, lead to several comical passages. The Immortals' story culminates at the end

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<sup>8</sup> VanderMeer, Jeff (2017), *Borne*. New York: MCD/Farrar, Straus & Giroux.

<sup>9</sup> Building on an understanding of subjectivity stemming from the Freudian and Lacanian tradition, several scholars have problematised the opposition human/machine by highlighting the constitutive lack that characterises both (e.g. Liu, 2010; Golev, 2019).

of the book with an additional degree of irony and confusion. A hilarious conversation and final revelation takes place via a random encounter between the seven Immortals and a less evolved droid. When meeting the Immortals, the more modest droid scans its memory in order to *recognise* them, and after some browsing it recalls their true story: we then discover that the Immortals, rather than perfect machines that ruled the world, are in fact a group of faulty droids that escaped the lab that had produced them after killing their creator, Jan Sebič. The droid recalls that:

The last seven of the series [i.e. the Immortals] had a memory compressed to the point that it exceeded the maximum limit, and it had been noticed that they had another fault: that they could dream, and could not distinguish dream from reality. (Cavazzoni, 2018: 650; author's translation)

Not only do we discover that the Immortals' perfect government of the world only took place in their own psychotic hallucination and dreaming, but we also witness their very "human" reaction to that revelation:

They [the Immortals] all recognised it [the droid] as product of their same laboratory – Simplex – but nobody said that, because in their conception there were two degrees of truth, one minor and one major, and they consider the minor truth to be deplorable and outdated, like a fairy tale, that is the fact that they were just faulty Ippias [their droid model]; while the major truth (which would do the good of humanity in the near future) was that Jan Sebič had created them to solve the world's many evils. (*ibidem*: 653; author's translation)

#### **CONCLUSIONS: LACK AND LOSS IN THE FACE OF THE CATASTROPHE**

Starting from a view on climate change (and more broadly the Anthropocene) as symptom of a crisis of humanism and modern human subjectivity, this article has explored some of the challenges encountered (by scholarship as well as in literature) to imagine and envision new ways to live and be human on a warming planet. Dystopian narratives of catastrophe and collapse – key ingredients of environmental discourse and imaginaries – have represented to an extent an escape route in the face of such difficulties and the current paucity of imagination. In *TWK* and *GdD*, which narrate life in the ruins, we have encountered different ways in which planetary disaster has been narrated in novels. As we have seen, both novels present remarkable inversions and reconfigurations in terms of the cartography of vulnerability that often accompanies visions about the impacts of climate change, as well as the forms of human mobility in

such context. The two novels represent very different ways to navigate the notion of the disaster and its anticipation. In the last instance, TWK uses the plan of the future in order to create a loud alarm and denunciation about the present, warning about how the disaster could “come home” unless dangerous climate change is averted. In doing so, it largely mobilises the classic arsenal of “loom and gloom” through which the dangers of climate change are often represented and action to avoid their materialisation is called for, not least by producing anxiety in the reader/viewer. Cavazzoni’s novel is dystopian in a more ironic way. The demented galaxy Cavazzoni describes unsettles the standard (and rather moralistic) tendency in dystopian work to, in effect, defend modern subjectivity. The world imagined by Cavazzoni is not one in which many would like to live – it is not a blueprint nor utopia. The novel does not offer any hope for change, configuring a context in which, if any change would happen, it would likely be by chance or mistake, rather than via a coordinated mobilisation. However, Cavazzoni’s is probably a more “useful” nightmare than those conjured by many other cli-fi works. With its irony and generalisation of a condition of lack, at least, it avoids resuscitating the fantasy of the modern human (or creating a melancholic sense of loss of it), which is arguably one of the obstacles to envisioning new forms of subjectivity able to negotiate more just socio-ecological constellations and interactions.

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### **REFERENCES**

- Bacigalupi, Paolo (2015), *The Water Knife*. New York: Alfred A. Knopf.
- Baldwin, Andrew (2013), “Racialisation and the Figure of the Climate-Change Migrant”, *Environment and Planning A: Economy and Space*, 45(6), 1474-1490.
- Baldwin, Andrew (2016a), “Premediation and White Affect: Climate Change and Migration in Critical Perspective”, *Transactions of the Institute of British Geographers*, 41(1), 78-90.

- Baldwin, Andrew (2016b), "Resilience and Race, or Climate Change and the Uninsurable Migrant: Towards an Anthroporacial Reading of 'Race'", *Resilience*, 1-15.
- Baldwin, Andrew (2017a), "Climate Change, Migration, and the Crisis of Humanism", *Wiley Interdisciplinary Reviews: Climate Change*, 8(3), e460.
- Baldwin, Andrew (2017b), "Rearranging Desire: On Whiteness and Heteronormativity", in Andrew Baldwin; Giovanni Bettini (eds.), *Life Adrift: Climate Change, Migration, Critique*. London: Rowman & Littlefield, 211-225.
- Baldwin, Andrew; Bettini, Giovanni (eds.) (2017), *Life Adrift: Climate Change, Migration, Critique*. London: Rowman & Littlefield.
- Bettini, Giovanni (2013), "Climates Barbarians at the Gate? A Critique of Apocalyptic Narratives on Climate Refugees", *Geoforum*, 45, 63-72.
- Bettini, Giovanni (2014), "Climate Migration as an Adaption Strategy: De-Securitizing Climate-Induced Migration or Making the Unruly Governable?", *Critical Studies on Security*, 2(2), 180-195.
- Bettini, Giovanni (2018), "Environmental Catastrophe", in Noel Castree; Mike Hulme; James D. Proctor (eds.), *Companion to Environmental Studies*. London: Routledge, 39-42.
- Bettini, Giovanni (2019), "And Yet It Moves! (Climate) Migration as Symptom in the Anthropocene", *Mobilities*, 14(3), 336-350.
- Bettis, Oliver D.; Dietz, Simon; Silver, Nick G. (2017), "The Risk of Climate Ruin", *Climatic Change*, 140(2), 109-118.
- Bonneuil, Christophe; Fressoz, Jean-Baptiste (2016), *The Shock of the Anthropocene: The Earth, History, and Us*. London: Verso.
- Braidotti, Rosi (2017), "Four Theses on Posthuman Feminism", in Richard Grusin (ed.), *Anthropocene Feminism*. Minneapolis: University of Minnesota Press, 21-48.
- Bulfin, Ailise (2017), "Popular Culture and the 'New Human Condition': Catastrophe Narratives and Climate Change", *Global and Planetary Change*, 156, 140-146.
- Cavazzoni, Ermanno (2018), *La galassia dei dementi*. Roma: La nave di Teseo.
- Chaturvedi, Sanjay; Doyle, Timothy (2015), *Climate Terror: A Critical Geopolitics of Climate Change*. New York: Palgrave Macmillan.
- Clark, Nigel (2011), *Inhuman Nature: Sociable Life on a Dynamic Planet*. Delhi/London: SAGE Publications Ltd.
- Colebrook, Claire (2017), "We Have Always Been Post-Anthropocene – The Anthropocene Counterfactual", in Richard Grusin (ed.), *Anthropocene Feminism*. Minneapolis: University of Minnesota Press, 1-20.
- Colebrook, Claire (2018), "Anti-Catastrophic Time", *New Formations*, 92(1), 102-119.
- Cosgrove, Denis (2008), "Images and Imagination in 20th-Century Environmentalism: From the Sierras to the Poles", *Environment and Planning A: Economy and Space*, 40(8), 1862-1880.
- Crutzen, Paul J. (2002), "Geology of mankind", *Nature*, 415(6867), 23.

- Davis, Mike (1999), *Ecology of Fear – Los Angeles and the Imagination of Disaster*. New York: Vintage Books.
- Dörries, Matthias (2010), “Climate Catastrophes and Fear”, *Wiley Interdisciplinary Reviews: Climate Change*, 1(6), 885-890.
- Edwards, Paul N. (2010), *A Vast Machine: Computer Models, Climate Data, and the Politics of Global Warming*. Cambridge, MA: MIT Press.
- Ehlers, Eckart; Krafft, Thomas (eds.) (2006), *Earth System Science in the Anthropocene: Emerging Issues and Problems*. Berlin/London: Springer.
- Elliott, Brian (2016), *Natural Catastrophe: Climate Change and Neoliberal Governance*. Edinburgh: Edinburgh University Press.
- Eurobarometer (2018), “Standard Eurobarometer 90 Autumn 2018”. Accessed on 02.06.2020, at <http://ec.europa.eu/commfrontoffice/publicopinion/index.cfm/Survey/index#p=1&instruments=SPECIAL>.
- Farbotko, Carol (2010), “Wishful Sinking: Disappearing Islands, Climate Refugees and Cosmopolitan Experimentation”, *Asia Pacific Viewpoint*, 51(1), 47-60.
- Felli, Romain (2013), “Managing Climate Insecurity by Ensuring Continuous Capital Accumulation: ‘Climate Refugees’ and ‘Climate Migrants’”, *New Political Economy*, 18(3), 337-363.
- Forsyth, Tim (2003), *Critical Political Ecology: The Politics of Environmental Science*. London: Routledge.
- Ghosh, Amitav (2016), *The Great Derangement: Climate Change and the Unthinkable*. Chicago: University of Chicago Press.
- Giuliani, Gaia (2016), “Monstrosity, Abjection and Europe in the War on Terror”, *Capitalism Nature Socialism*, 27(4), 96-114.
- Giuliani, Gaia (2017), “Afterword”, in Andrew Baldwin; Giovanni Bettini (eds.), *Life Adrift: Climate Change, Migration, Critique*. London: Rowman & Littlefield, 227-241.
- Golev, Valentin (2019), “Can a Machine Lack? The Lacanian Computation”, *&&& Platform*, 17 March. Accessed on 02.06.2020, at <https://tripleampersand.org/can-machine-lack-lacanian-computation/>.
- Grusin, Richard (ed.) (2017), *Anthropocene Feminism*. Minneapolis: University of Minnesota Press.
- Haraway, Donna (1991), *Simians, Cyborgs, and Women*. New York: Routledge.
- Haraway, Donna (2015), “Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making King”, *Environmental Humanities*, 6, 159-165.
- Hsu, Hsuan; Yazell, Bryan (2019), “Post-Apocalyptic Geographies and Structural Appropriation”, in Nina Morgan; Alfred Hornung; Takayuki Tatsumi (eds.), *The Routledge Companion to Transnational American Studies*. London: Routledge, 347-355.
- Hulme, Mike (2009), *Why We Disagree about Climate Change: Understanding Controversy, Inaction and Opportunity*. Cambridge/New York: Cambridge University Press.
- Hulme, Mike (2017), *Weathered: Cultures of Climate*. London: SAGE Publications Ltd.

- IPCC – Intergovernmental Panel on Climate Change (2018), “Summary for Policymakers”, in VV. AA (eds.), *Global Warming of 1.5°C. An IPCC Special Report on the Impacts of Global Warming of 1.5°C [...]*. Genève: World Meteorological Organization, 3-26.
- Jamison, Andrew (2001), *The Making of Green Knowledge: Environmental Politics and Cultural Transformation*. Cambridge: Cambridge University Press.
- Jamison, Andrew; Hård, Mikael (2005), *Hubris and Hybrids: A Cultural History of Technology and Science*. London: Routledge.
- Jasanoff, Sheila (2010), “A New Climate for Society”, *Theory, Culture & Society*, 27(2-3), 233-253.
- Johns-Putra, Adeline (2016), “Climate Change in Literature and Literary Studies: From Cli-Fi, Climate Change Theater and Ecopoetry to Ecocriticism and Climate Change Criticism”, *Wiley Interdisciplinary Reviews: Climate Change*, 7(2), 266-282.
- Kaplan, E. Ann (2015), *Climate Trauma: Foreseeing the Future in Dystopian Film and Fiction*. New Brunswick, London: Rutgers University Press.
- Lilley, Sasha; McNally, David; Yuen, Eddie; Davis, James (2012), *Catastrophism: The Apocalyptic Politics of Collapse and Rebirth*. Oakland: PM Press.
- Liu, Lydia He (2010), *The Freudian Robot: Digital Media and the Future of the Unconscious*. Chicago: University of Chicago Press.
- Lövbrand, Eva; Stripple, Johannes; Wiman, Bo (2009), “Earth System Governmentality: Reflections on Science in the Anthropocene”, *Global Environmental Change*, 19(1), 7-13.
- Malm, Andreas (2016), *Fossil Capital: The Rise of Steam-Power and the Roots of Global Warming*. London/New York: Verso.
- Malm, Andreas; Hornborg, Alf (2014), “The Geology of Mankind? A Critique of the Anthropocene Narrative”, *The Anthropocene Review*, 1(1), 62-69.
- Manzo, Kate (2010), “Imaging Vulnerability: The Iconography of Climate Change”, *Area*, 42(1), 96-107.
- Merchant, Carolyn (1989), *The Death of Nature: Women, Ecology, and the Scientific Revolution*. San Francisco: Harper & Row.
- Methmann, Chris; Oels, Angela (2015), “From ‘Fearing’ to ‘Empowering’ Climate Refugees: Governing Climate-Induced Migration in the Name of Resilience”, *Security Dialogue*, 46(1), 51-68.
- Milkoreit, Manjana (2017), “Imaginary Politics: Climate Change and Making the Future”, *Elementa – Science of the Anthropocene*, 5, art. 62.
- Mol, Arthur P. J.; Spaargaren, Gert (1993), “Environment, Modernity and the Risk-Society – The Apocalyptic Horizon of Environmental Reform”, *International Sociology*, 8(4), 431-459.
- Morton, Timothy (2013), *Hyperobjects: Philosophy and Ecology after the End of the World*. Minneapolis: University of Minnesota Press.
- Nixon, Rob (2011), *Slow Violence and the Environmentalism of the Poor*. Cambridge, MA: Harvard University Press.

- Nurmis, Joanna (2016), "Visual Climate Change Art 2005-2015: Discourse and Practice", *Wiley Interdisciplinary Reviews: Climate Change*, 7(4), 501-516.
- O'Neill, Brian C., et al. (2017), "IPCC reasons for concern regarding climate change risks", *Nature Climate Change*, 7(1), 28-37.
- Oreskes, Naomi; Conway, Erik M. (2014), *The Collapse of Western Civilization: A View from the Future*. New York: Columbia University Press.
- Povinelli, Elizabeth A. (2017), "The Ends of Humans: Anthropocene, Autonomism, Antagonism, and the Illusions of Our Epoch", *South Atlantic Quarterly*, 116(2), 293-310.
- Rafferty, Adrian E.; Zimmer, Alec; Frierson, Dargan M. W.; Startz, Richard; Liu, Peiran (2017), "Less than 2 °C Warming by 2100 Unlikely", *Nature Climate Change*, 7(9), 637-641.
- Ransan-Cooper, Hedda; Farbotko, Carol; McNamara, Karen E.; Thornton, Fanny; Chevalier, Emiliee (2015), "Being(s) Framed: The Means and Ends of Framing Environmental Migrants", *Global Environmental Change*, 35, 106-115.
- Roberts, J. Timmons; Parks, Bradley C. (2007), *A Climate of Injustice: Global Inequality, North-South Politics, and Climate Policy*. Cambridge, MA/London: MIT Press.
- Rose, Gillian (2017), "Posthuman Agency in the Digitally Mediated City: Exteriorization, Individuation, Reinvention", *Annals of the American Association of Geographers*, 107(4), 779-793.
- Rothe, Delf (2017), "Gendering Resilience: Myths and Stereotypes in the Discourse on Climate-Induced Migration", *Global Policy*, 8(S1), 40-47.
- Skrimshire, Stefan (2010), *Future Ethics: Climate Change and Apocalyptic Imagination*. London: Continuum.
- Skrimshire, Stefan (2014), "Climate Change and Apocalyptic Faith", *Wiley Interdisciplinary Reviews: Climate Change*, 5(2), 233-246.
- Skrimshire, Stefan (2019), "Deep Time and Secular Time: A Critique of the Environmental 'Long View'", *Theory, Culture & Society*, 36(1), 63-81.
- Sörlin, Sverker; Lane, Melissa (2018), "Historicizing Climate Change – Engaging New Approaches to Climate and History", *Climatic Change*, 151, 1-13.
- Streeby, Shelley (2018), *Imagining the Future of Climate Change: World-Making through Science Fiction and Activism*. Oakland: University of California Press.
- Svoboda, Michael (2016), "Cli-fi on the Screen(S): Patterns in the Representations of Climate Change in Fictional Films", *Wiley Interdisciplinary Reviews: Climate Change*, 7(1), 43-64.
- Swyngedouw, Erik (2010), "Apocalypse Forever? Post-Political Populism and the Spectre of Climate Change", *Theory, Culture & Society*, 27(2-3), 213-232.
- Swyngedouw, Erik; Ernstson, Henrik (2018), "Interrupting the Anthro-obScene: Immuno-Biopolitics and Depoliticizing Ontologies in the Anthropocene", *Theory, Culture & Society*, 35(6), 3-30.
- Telford, Andrew (2018), "A Threat to Climate-Secure European Futures? Exploring Racial Logics and Climate-Induced Migration in US and EU Climate Security Discourses", *Geoforum*, 96, 268-277.

- Tsing, Anna Lowenhaupt (2015), *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*. Princeton: Princeton University Press.
- Turhan, Ethemcan; Zografos, Christos; Kallis, Giorgos (2015), "Adaptation as Biopolitics: Why State Policies in Turkey Do not Reduce the Vulnerability of Seasonal Agricultural Workers to Climate Change", *Global Environmental Change*, 31, 296-306.
- Vanderheiden, Steve (ed.) (2008), *Political Theory and Global Climate Change*. Cambridge, MA: MIT Press.
- VanderMeer, Jeff (2017), *Borne*. London: 4th Estate.
- Warde, Paul; Robin, Libby; Sörlin, Sverker (2018), *The Environment: A History of the Idea*. Baltimore: Johns Hopkins University Press.
- Williams, Evan Calder (2011), *Combined and Uneven Apocalypse*. Ropley: Zero.
- Willis, Rebecca (2017), "Taming the Climate? Corpus Analysis of Politicians' Speech on Climate Change", *Environmental Politics*, 26(2), 212-231.
- Yusoff, Kathryn (2018), *A Billion Black Anthropocenes or None*. Minneapolis: University of Minnesota Press.
- Yusoff, Kathryn; Gabrys, Jennifer (2011), "Climate Change and the Imagination", *Wiley Interdisciplinary Reviews: Climate Change*, 2(4), 516-534.
- Žižek, Slavoj (2010), *Living in the End Times*. London: Verso.