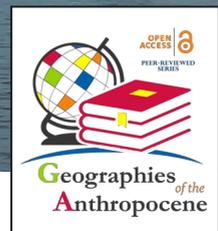


NARRATIVES IN THE ANTHROPOCENE ERA

Charles Travis, Vittorio Valentino (Editors)

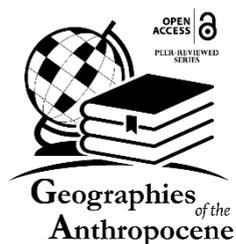
Preface by Kirill O. Thompson

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Narratives in the Anthropocene era

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Editors



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“Narratives in the Anthropocene era”

Charles Travis, Vittorio Valentino (Eds.)

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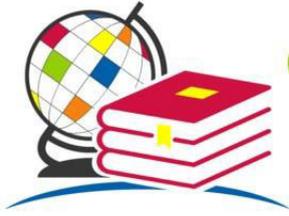


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CONTENTS

Preface <i>Kirill O. Thompson</i>	9
Introduction <i>Charles Travis, Vittorio Valentino</i>	33
Section I	
<i>Resilience: literary and sensory narratives</i>	
1. Italian writers and the Anthropocene <i>Chantal Colomb</i>	40
2. Extinction, atavism and inevitability: life after collapse. A study of The Eternal Adam by Jules Verne and of The Death of the Earth by J.-H. Rosny aîné. <i>Kevin Even</i>	57
3. We are not alone in the world <i>Noé Gross</i>	72
4. Animals' Optical Democracy in the fiction of Cormac McCarthy <i>Geneviève Lobo</i>	91
5. Idyll and threat: man-nature relationship in the history of music, art and literature <i>Federico Volpe</i>	107
6. Countering Anthropos with Trans-Corporeal Assemblages in Rita Indiana's Tentacle <i>Sarah Sierra</i>	122
7. On the environmental issue: when poets listen to Mother-Land <i>Sébastien Aimé Nyafouna</i>	140

Section II

Transformative Action and Global Ecological Sustainability

8. Becoming aware of the living air: from scientific and indigenous narratives to care ethics
Clément Barniaudy 164
9. An Evaluation of a Shambaa Community’s Tradition of Adaptation to Local and Global Forces to Maintain Socio-economic and Ecological Sustainability, and Plague Resilience in Lushoto, Tanzania
Raymond Ruhaak, Philemon Mtoi 182
10. Fire and Form: First Nation Eco-Georgic Practices in “Borri is Fire Waru is Fire” by Lionel Fogarty
Trevor Donovan 216
11. All my earthothers: Levinasian tools for deep ecology
Erika Natalia Molina Garcia 232
12. Bio-deconstructing Bioremediation: Tailings Ponds, Oil-eating Bacteria, and Microbial Agency
Aaron Bradshaw 251
13. Healing the Earth, transforming the mind: how the COVID-19 pandemic generates new insights through the Econarrative writing workshop
Angela Biancofiore 266

Section III

Crisis and pandemic: dynamics of writing and thinking

14. COVID-19 as a wake-up call. Potential for more sustainable attitudes and behaviors in Poland
Justyna Orłowska, Alicja Piekarz 285
15. Young People’s Geographies in the Times of Covid-19: System Threat as a Chance for System Change?
Lydia Heilen, Andreas Eberth, Christiane Meyer 302

16. Mapping the Anthropocene: The Harrisons' and The Deep Wealth of this Nation, Scotland <i>Inge Panneels</i>	321
17. Prolegomena to containment tourism. Happy and smart self-deconfinement sheet or "links to free oneself" <i>Charlie Galibert</i>	343
<i>The Authors</i>	356

2. Extinction, atavism and inevitability: life after collapse. A study of *The Eternal Adam* by Jules Verne and of *The Death of the Earth* by J.-H. Rosny aîné.

*Kevin Even*¹

Abstract

The goal of this chapter is to examine two texts from the early twentieth century addressing problems related to the Anthropocene Era -*The Eternal Adam* by Jules Verne and *The Death of the Earth* by J.-H. Rosny aîné- in order to understand the effects the environmental issues has had on the imagination of writers since the XIXth century. Through a study of these texts I will demonstrate in a dynamic way how these two authors depict collapse from the point of view of one individual, while questioning the destiny of humanity as a whole. I will examine the different characters' perceptions of the cataclysm which is at the heart of each narrative, as well as the depiction of matters related to evolution and regression. I will also comment on the pessimistic tone of these texts and link their common themes together. While I will go back and forth between these novellas throughout three sections, I will also link them with canonical texts about ecology to show how their views on the relationship between man and nature, progress and science, are still very much relevant today. Indeed, we will see that the way they question industrial growth reminds us that since the Industrial Revolution we have always been a society that struggles with its natural habitat. In conclusion, we will understand that these novellas show that the fear of climate change is ancient, but also that the anxiety related to the collapse of our modern world has only increased since the beginning of the XXth century.

Keywords: Jules Verne, Rosny aîné, ecocriticism, collapse, Anthropocene

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Introduction

In 1910, French authors J.-H. Rosny aîné and Michel Verne (under his father's name) published two post-apocalyptic novellas: *The Death of the Earth* and *The Eternal Adam*. In both fictions, these authors depict the collapse of human societies from the point of view of one individual, while questioning the destiny of humanity as a whole. Frequently used to describe the possible future of industrial societies since Jared Diamond's 2005 essay *Collapse: How Societies Choose to Fail or Survive*, the term "collapse" is indeed adequate to describe humanity's destiny in these novellas. Facing natural disasters, climate change, scarcity of resources and massive extinctions, the characters discuss their beliefs and wonder about their ability to survive in a world that is no longer welcoming to them. Debating the matters of hubris, evolution and regression, these texts share the same pessimistic tone and comment on the fate of powerful and arrogant societies that are unable to consider the possibility of their decline.

While extinction is the main threat in these fictions, the authors also imagine the modality of life after collapse. As humanity is reduced to a small number of individuals, the matter of survival leads to reflections about the decay of human faculties. Using Lamarckian and Darwinian theories, both authors represent evolution at work and depict the regression of the last survivors, or their replacement by species more suited to the new environmental conditions. Matters of heredity and atavism - the reappearance in one individual of an old genetic trait lost for generations - are also represented and show for dramatic purpose that the triumph of man is not set in stone. It is also notable that if both authors use primitive apocalyptic images such as earthquakes and tidal waves to set their stories, they very much reflect on their own time. At the beginning of the XIXth century, anxiety about industrial progress increased and continued into the beginning of the XXth century as new fears emerged. Scientific discoveries such as radioactivity, as well as the progress of chemistry and weaponry were indeed announcing a grim future. At that time more than ever, thinkers and writers wondered where industrialism would lead western societies. Therefore, if these fictions are apocalyptic tales in their own right and are set so far in time and location that they were not intended to be realistic, their conclusions all revolved around the nature of human progress. Relying on science-fiction themes to comment on their present time, Rosny and Verne wonder: Is industrial progress limitless? Can a species that has the unlimited power to subdue the entire planet be destroyed? And if so, would

a new start be possible? As both titles show, one text comments on the eternal restart of everything while the other leans towards the perspective of total annihilation. Before going further, a summary of each novella is in order.

Publishing under his father's name, Michel Verne's novel recounts the discovery of an old manuscript narrating the extinction and the regression of humankind caused by an immense tidal wave. Found millennia after the event by Sofr, an arrogant scientist belonging to an advanced society that is unaware of this ancient extinction, the text is a diary documenting the disaster from the point of view of one man. The narrator, a bourgeois Frenchman, does not know why the collapse happened and thus narrates instead the lives of the last surviving members of his species. He describes the slow decay of the intellectual faculties of his peers and the new forms of life emerging from the seas and underscores the frightening thought that his world is now forever gone. Nonetheless, the focus of Verne's tale is not only one individual's fight for survival. He also provides a pessimistic commentary on hubris and shows humankind's precarious situation on Earth. Indeed, right before the disaster occurs the narrator recalls a conversation between characters about progress, technology and the purpose of human societies. The participants praise the success of industries and the "definitive victory of man over nature". Immediately after the conversation, an earthquake destroys everything and there begins the journal. Returning to the frame narrative, Sofr understands that his civilization comes from the small group of people that survived - but regressed - thousands of years ago, and more significantly that his society, which he perceived as the most advanced that ever existed, is bound to disappear as well. The moral lesson of this text is that humans are stuck in a loop where the fight for survival leads individuals to thrive and conquer, but are nonetheless condemned to start all over again. Indeed, no matter how advanced human societies become, Earth is and will always be untamable.

Rosny's novella describes the extinction of the "Last Men" thousands of centuries from the present, when a new form of life made of iron, the *ferromagnetals*, has become the dominant species on Earth. Targ, the main character of the story, is a young human trying to save his community on a planet that rejects organic forms of life. Water has been sucked into Earth's underground cavities and the climate is so disturbed that the sun's heat has become unbearable. As a result, humans no longer have the will to live and simply await their time to disappear. Meanwhile, the *ferromagnetals* thrive

on a planet that has become more amenable to their existence. Portrayed as a living force with a will of its own, Earth is indeed displayed as a planet that now rejects humans by depriving them of water. In the meantime it is also notable that humans are the cause of their own replacement. Indeed, the *ferromagnetals* are a life form that has emerged from their industries centuries ago during the "radioactive era". Questioning natural selection, evolutionary processes and industrial manipulations to "improve" human life, Rosny's pessimistic views are close to contemporary discourses about the extinction of biological species. The world of his characters is collapsing and its representations question the wrongdoings of previous generations as humans have now become an endangered species.

These works of fiction do not offhandedly touch upon human extinction to frighten young readers. While they may both deliver a dense adventure tale using expected motifs and situations, they more importantly comment on the relationship between an immensely powerful species and its equally powerful habitat. The similar questions raised by these authors, notably those revolving around hubris and evolution, as well as the different answers both of them give to these questions invite parallels between the texts. Moreover, it is obvious that despite being published in 1910, they address problems related to the Anthropocene Era and encourage similar responses of humility and prudence - a common approach found in contemporary texts on the Holocene extinction. Indeed, they work like many other early science-fiction novels as cautionary tales for the industrial age. This is why in addition to studying these texts from a literary perspective it is important to reflect on the ideology that powers them. They offer satirical commentary on modernism that still resonates today, with a sense of emergency that did not exist before. The natural catastrophes depicted in each novella are unreasonable, but our current time has become more receptive to collapse fictions.

Indeed, these works are a crucial reminder that while global warming, the sixth mass extinction and now the Covid-19 pandemic have put the matter of environmental crisis at the heart of social, political and cultural preoccupations in recent years, the representation of environmental threats has been a constant theme in Western literature since the XIXth century. The Industrial Revolution inspired writers to question the wonders of technology as well as the massive destruction those technologies can bring upon both humankind and nature. While I do not intend to recount the entire history of collapse fictions, nor to insinuate that the current collapse discourses are

passé, it is important to understand that fictions about the excesses of capitalism and industrialization have been around for a long time and are now being rediscovered and reinterpreted as our global environmental degrades. The cultural representations of collapse are essentially grim and hopeless, and these novellas are such because they question hyper-industrialization and greed. Therefore, the catastrophes they depict must be understood as allegorical and not only as narrative devices.

1. From *Terra mater* to “the homicidal planet”

I will sing to the mother of all, firmly rooted Gaia,
the oldest deity, who feeds all the world’s life-
whether on divine land, in the deep sea,
or flying about- all beings feed from your plenty.
Fine children and rich harvests arise from you,
O Queen. (Rayor, 2014, p. 100).

The depiction of Earth as an anthropomorphized figure is a very ancient cultural phenomenon. Often called Gaia or Gê, the globe has often been portrayed as both a nurturing entity and a destructive force to be feared and respected. Even during the XVIIIth and XIXth centuries, as humankind took giant steps toward mastery of Earth’s resources, seen by some as finally fully realizing God’s will² (*Genesis* 1:28), fiction authors were among those wondering if Gaia was really beaten, or if she was just waiting to take her revenge. Jules Verne, for example, always depicted the wonders of technology to praise industrial genius, but at the same time would write about the weakness of humans compared to natural forces. Even at a time where ideologies such as positivism and industrialism promoted technological wonders, the victory of man against nature was rarely perceived as being complete. On the contrary, it was often challenged by greater forces who seemed to express the growing wrath of an upset and vengeful planet.

Rosny’s representation of Gaia indicates that he too was interested in showing her immense power. In his novella, he frequently personifies

² *Genesis* 1:28: “God blessed them and said to them, ‘Be fruitful and increase in number; fill the earth and subdue it. Rule over the fish in the sea and the birds in the sky and over every living creature that moves on the ground.’”

natural phenomena and refers to Earth as an entity willing to destroy its children. The story begins by introducing the "malevolent voice" (Rosny aîné, 1975, p. 126) of the "frightful north wind" (*Ibid.*) and its terrible consequences on the Last Men. Indeed, the wind fills the remaining oasis "with dread and sadness" (*Ibid.*) and implies from the very start that the natural conditions in this distant future are not ideal. The clouds are nowhere to be seen, the sun's heat is unbearable and, most importantly, all water is gone. Over centuries, countless earthquakes have made every water source disappear into the ground. Once again, Rosny uses personification to imply the active role of Gaia in man's decline as this dialogue between two gloomy characters shows:

"We shall see the end of the world!' insisted the thickest man. So much better!" said Dane's great-grandson. "Let Earth drink up the last springs this very day" (*Ibid.*, p. 128).

The vocabulary used in these two examples to describe natural phenomena, whether it's the noun "voice" or the verb "drink", is not only used for stylistic purposes - it implies that Gaia actively works against humanity. The name of the third chapter, "the homicidal planet", makes this even clearer. By denying humans the ability to sustain themselves, the Earth is killing them. We can therefore understand why the Last Men "attribute a slow and irresistible will to the planet" (*Ibid.*, 37). Throughout the course of the story, as she destroys every remaining oasis, Gaia instills fear among survivors. However, she is not portrayed as a villain to be fought against. For unknown reasons, she is simply no longer on the side of humans. As the narrator points out:

initially favorable to the realms to which it gives birth. The Earth let them acquire great power; the mysterious moment when it condemned them was also that when it began to favor new realms (*Ibid.*).

Aware of Darwin's work, Rosny uses the principle of survival of the fittest to show how the natural environment plays a central role in the survival of creatures. Here, Earth is dry and hot and humans are no longer suited to be the dominant species. If they disappear and are replaced it is a mere matter of evolution. Very much like in James Lovelock's Gaia Hypothesis, Earth is a "physiological and dynamic system" (Lovelock, 2008, p. 30) that is actively favoring or disfavoring realms. In both

Lovelock and Rosny's texts, it becomes obvious that humans are nothing more than a minor part in a bigger system.

In *The Eternal Adam*, Michel Verne does not personify Earth but rather uses near-biblical situations to illustrate the fragility of man. The narrator of the embedded story, an unnamed Frenchman, recounts the events that caused the destruction of mankind sometime after the year two thousand. While entertaining guests in his house in Rosario, he learns a flood has struck the coast of Argentina, forcing him and his guests to run for their lives. Horrified by the magnitude of the earthquake, the Frenchman observes the landscape he always knew and remains struck by fear. The only thing he can do is wonder in disbelief about what happened to this "nature which (he) consider(ed) in essence immutable" (Verne, 2019, p. 24). After being rescued by a boat, the group of survivors finds itself stranded in the middle of an unknown ocean and unsuccessfully tries to find land. As they navigate above America, Europe and Asia, the narrator concludes that Earth has become an infinite desert made of water. Like in Rosny's novella, the characters find themselves defenseless against natural disasters. It's important to note that, here the collapse is less a matter of evolution than it is a demonstration, a kind of *Deus ex machina*, imagined by Verne to punish the hubris of his characters. Indeed, the embedded narrative begins with a cosmopolitan dinner party where the narrator and his guests, who are all rich politicians, contractors, doctors and industrials, are praising man's undisputed power:

In short, it was a real dithyramb, in which I contributed my own part, I must admit it. It was agreed on this point that humanity had reached an intellectual level unknown before our time, and which permitted us to believe in its definitive victory over nature (*Ibid.* p. 22).

It is clear that Verne destroys his fictional world to comment on the arrogance of modern man. This retelling of his guests' enthusiastic speech is even preceded by a remark made by the narrator himself indicating how readers should understand the disaster to come. The Frenchman says that the only reason he remembers these remarks is that "the brutal commentary that would soon be made does not fail to give them some piquancy" (*ibid.* p. 21). Relying on with more than *finesse*, Verne's commentary on the opposition between man and nature is nonetheless very close to Rosny's. No matter how advanced a society is, Earth is always running the show and can destroy those haughty enough to think that they can defeat her. As señor Mendoza, the only "cultivated mind" (*ibid.* p. 20) of the dinner and the one

skeptic about man's supposed victory, says to the other guests: "I do not see anything absurd, in principle, to admit that the entire surface of the globe might be upset at the same time" (*Ibid.* p. 24). When considering the measures humanity should take in order to protect the rights of nature in his 1990 essay *The natural contract*, Michel Serres began his reflections in the same fashion:

Through our mastery, we have become so much and so little masters of the Earth that it once again threatens to master us in turn. Through it, with it, and in it, we share one temporal destiny. Even more than we possess it, it will possess us, just as it did in the past (Serres, 1995, pp. 33-34).

Reflecting on power dynamics, hubris and time, Serres and Verne both determine that it is the arrogance of industrial man that prevents him from realizing he is not separate from or greater than the Earth; rather, they share the same destiny. Moreover, if they were to compete against one another, no matter how powerful man thinks he is, his fate would always rest in the hands of his environment.

2. Man is a wolf to man

The finally unbound Prometheus calls for an ethics that prevents the power of man to become a curse for himself (Jonas, 2013).

While the main story of *The Death of the Earth* is set in a future so far forward as to be unimaginable, the narrator frequently steps back in time to recount the decline of humanity before the events of the story occur. Recounted from the point of view of an early XXth century author, the description of this era of decaying humanity neatly summarizes the anxieties of the Industrial Revolution. Earth is overpopulated, the wilderness has been destroyed, food and water are artificial, and industrials rule man's lives. This grim depiction is nothing unusual for a science-fiction novella, even from this time. We must recall that ever since the publication in 1846 of Emile Souvestre's *The world as It Shall Be*, the future of mankind in the genre is essentially menacing. Although, it is interesting to note that Rosny also comments on the mindset of this advanced civilization, as if its mastery of nature had become a curse. This is not only the view of the reader, but is directly noted in the text as a feature of the characters themselves. Indeed, it is a burden to the point where "Suicide ended up as the most dreadful

sickness of the species” (Rosny aîné, 1975, p. 135). Going further, the narrator points out that even if the societies from this time had mastered nature to the point where they could use the atoms for their benefits: “the people from that powerful age lived an anxious existence” (*Ibid.*). As the story unfolds, we then understand that this anguish has been caused by the systematic destruction of every lifeform in existence. In addition to the annihilation of “the woods, the heaths, the marshes, the steppes and the fallow grounds” (*Ibid.*), wild animals no longer exist, while the captive ones are victims of a horrific industrial system. Indeed, they had become “hideous ovoid masses with limbs transformed into vestigial stumps and jaws atrophied by force-feeding” (*Ibid.*). It is clear that from the narrator’s perspective the enslavement of nature is wrong by essence as it is not only destroying life, but also causing humans to destroy themselves. He also points out that, ironically, these powerful humans from the past were not concerned by the disappearance of water, because they were so confident in their ability to master “artificial methods of cultivation and nutrition” (*Ibid.*). Even if these few pages placed at the beginning of the third chapter have little to do with the main story, they offer a notable commentary on how these so-called “modern societies” alienated themselves as they were destroying their natural habitat. Here, Rosny uses fiction to share an opinion on the relationship between progress, nature and wellbeing, and his reading resonates not only with general popular sentiment now alarmed by the destruction of biodiversity, but also with contemporary philosophy. Consider Arne Næss’ discussions of deep ecology. Næss is deeply concerned by the effects the destruction of nature has on man himself. Commenting on the matter and pleading for the rejection of anthropocentrism, Næss notes in his famous *Inquiry* paper that the man’s quality of life:

depends in part upon the deep pleasure and satisfaction we receive from close partnership with other forms of life. The attempt to ignore our dependence and to establish a master-slave role has contributed to the alienation of man from himself (Næss, 1973, pp. 95-100).

The implications of both Rosny’s and Næss’ texts are clear: if Mankind violently imposes its will on other creatures, it will soon become its own arch-nemesis. In Verne’s novella, the two intertwined narratives mirror each other. While the story of the main protagonists, Sofr and the Frenchman, are set in different times, they are linked by their commentaries on human progress. Even with its title, the novella argues that man’s history is a never ending cycle. Recounting the growth of Zartog’s evolution, – the name of

Sofr's civilization – the narrator summarizes the conflicts between humans and the eternal “struggle against nature” (Verne, 2019, p. 8) that led the species to increase “the amplitude of its victory” (*Ibid.*) over the planet. This chronicle recalls the “insatiable rage (that) had watered the earth” (*ibid.*, p. 9) with man's blood, as well as the extraordinary discoveries he made throughout history. Though the name of this civilization may differ from the Frenchman's, the description mirrors human history as we know it. It is as if humans were bound to repeat themselves over and over again. The narrator of the frame story praises man's wonders, just as the Frenchman does at his dinner. The Zartogs mastered coal, steam, electricity and made countless discoveries. Sofr's present is very much the equivalent of our early twentieth century. Indeed, Verne does not intend to create another world or to tell a new story. Well aware of the XIXth century's fascination for archeology and ruins, his point is that there's only one story and it is repeating itself. As señor Mendoza suggests in the embedded narrative, the history of the Babylonians, the Egyptians and even the Atlantean prove that civilizations inevitably go through a cycle of birth, growth and death. From there, it is possible to think that such a scenario could apply to the species itself.

So what is Sofr's take on this assumption? One might recall that he is depicted as a brilliant and yet arrogant scientist. He remains convinced of the superiority of his people and unwilling to admit the possibility that Zartogs could have been preceded by stronger civilizations. His views on the matter are exactly the same as the ones made by the Frenchman's guests. And although he will not be crushed by a natural disaster like them, he too will have to realize that the ever-growing progress of man has its limits. Indeed, his society is similarly threatened by ancient and insidious ideologies such as racism, nationalism and populism. Yet limited to a couple paragraphs, this implies alone the fragility of this so-called peaceful empire. The narrator even wonders: in order to maintain its unity, would man have to go through war and massacres again? The skeletons found by Zartogs deep in Earth's soil offer another example of this. As they dig in the ground, the ancient skulls they find are smaller than their own, following the laws of evolution. However, at a certain point, the skulls have become much larger than expected, suggesting that their most ancient ancestries were as evolved as them but had inexplicably devolved. Despite being a staunch devotee of evolutionary theory, Sofr rejects this discovery as he considers its meaning. Indeed, his views on human history as a “slow but steady march” (Rosny aîné, 1975, p. 13) towards “perfect knowledge and the absolute domination

of the universe” (*Ibid.*) are complicated by the suggestion that human history is nothing but a cycle. As we can see here, the structure of the novella repeats itself to defend a theory that is frequently used in Jules Verne’s work, as he refers to the fate of the Atlantide numerous times in the *Extraordinary Voyages*, but also in many other science-fiction texts. For example, in Pierre Boule’s *Planet of the Apes* (1963) the plot twist revolves around how and why apes had managed to thrive on a planet once mastered by man. We can assume that Boule might have read or been familiar with Rosny’s *The Death of the Earth*, as its story recounts the replacement of man by another species. Unlike in Verne’s novella, humans are part of the cycle of life, but they are not at the center of it. The disappearance of their societies or even the disappearance of their species is likely because it would be nothing but natural. For all their differences in plot and setting, these texts share a sense of the modern man as full of himself and unaware of his natural surroundings.

3. The end is the beginning. The beginning is the end.

The endless necrology of every creature, including ourselves, is the essential complement of the perpetual renewal of life (Lovelock, 2017, p. 225).

Fascinated by science, Rosny always used specific scientific terminology and theories in his texts. At the time of the publication, he was aware of the newest discoveries surrounding radioactivity and thus imagined that the ancestors of the “Last Men” had fully mastered the atoms. But while he was fascinated by man’s mind, Rosny was also aware of the ambivalent discourses about science that had run through the XIXth century. This is reflected in the text when the narrator mentions the diseases that had been created during the radioactive era by the industry that crafted artificial food. Indeed, this era is presented as being the most glorious period of man’s history and yet the most dangerous for its survival. Rosny’s real-world contemporary fear surrounding the excesses of scientists in their quest to master nature is made even clearer when it is revealed that the *ferromagnetals* were accidentally created by man’s industry. Even as they are introduced as a peaceful and thriving species, they are deadly to the last men, sucking the blood of the individuals that get too close to them. They therefore represent the last nail in man’s coffin. Doing his best to save his species, Targ is sad and helpless as he observes this new realm. Without overanalyzing Rosny’s narrative, which states that the *ferromagnetals* are

not an immediate threat to humans, the story still reminds us that science without conscience can lead to the ruin of the soul. Far from advocating for the unconditional enslavement of creatures and energies, Rosny warns about the unlimited power provided by science to a creature that is not as perfect as its own creations. Therefore, he places himself within a long tradition of skeptics towards scientism. When the German sociologist Ulrich Beck describes the way modern societies organized themselves in response to risk in the 1990s, as environmental anxieties were expanding, he is essentially re-stating what Rosny's narrator suggests about the radioactive era. As brilliant as man can be, if power is combined with greed and carelessness, it could bring about the end of the entire species. Summarizing Beck's thinking about the amount of risks taken by advanced societies, Aline Debourdeau states that:

the entry into the risk society seals the collapse of this distinction between risk and danger because of the eruption of a new kind of danger: uncontrollable, suitable for unnatural catastrophes generated by human actions, whose effects are unpredictable, untamable, incommunicable and compromising life on Earth (Debourdeau, 2013, p. 282) [my translation].

But while his novella has a pessimistic tone, resonating with the warnings of our own contemporary philosophers, Rosny also finds ways to show how man should act towards its natural environment. He offers some redemption in the cooperation between the last men and the only animals that remain alongside them – the birds. Both species live together and communicate so they can survive when earthquakes hit the oases. Similar to Arne Næss' views on the struggle for existence principle, the narrator implies that species should not destroy themselves when they can cooperate. By representing on the one hand a society that has alienated itself by destroying creatures by industry and, on the other, a group of survivors who cooperates with another intelligent life form, Rosny is making a clear statement. His narrative defends a more peaceful relationship between man and nature. In this novella, as Arne Næss states:

the so-called struggle of life, and survival of the fittest, should be interpreted in the sense of ability to coexist and cooperate in complex relationships, rather than ability to kill, exploit, and suppress. 'Live and let live' is a more powerful ecological principle than 'Either you or me' (Næss, 1973, pp. 95-100).

Although he does not rely as much as Rosny on the survival of the fittest principle, Michel Verne also seems convinced by Darwin's work and gives a nod to evolutionism in *The Eternal Adam*. He does so primarily through his descriptions of the ways his survivors must adapt to their new life conditions. After sailing for months without finding land, the group surrounding the Frenchman finds an island that has just emerged from the sea. As they settle and try to create a new society from scratch, they observe that plants, flowers and even fishes have already evolved since their arrival. Observing evolution in the making, the narrator also points out that the human faculties of his peers had dramatically decreased in just a matter of decades. The children of the group, who know nothing other than life on this island, do not read nor speak and therefore terrify the Frenchman, as he understands that future generations will inevitably regress. Lacking intellectual stimulation and focusing only on survival, his people became naked savages unable to communicate: "To eat, to eat is our perpetual goal, our exclusive concern" (Verne, 2019, p. 53). Here, the repetition of the verb effectively shows the obsession of the desperate narrator. It also announces the fate of a group that is simultaneously composed by the last men of a glorious realm, and by the savages who will have to evolve on their own in order to write their story. Sofr, reading this text written by the Frenchman and kept underground for millennia, at last understands that his own civilization emerged from this group. Intelligence, social skills, art and science were lost and then reappeared in the course of Zartog's history. Here, evolution and atavism illustrate the cyclicity of life but also ultimately the vanity of human progress, as the species is bound to be constantly destroyed and rebuilt. Disenchanted, Sofr is left with a fundamental existential anxiety as the narrator wonders if human's "insatiable desire" (*Ibid.*, p. 58) would be ever satisfied.

Although not opposed to human progress, Verne concludes that man's quest for power leads him to forget what he already has. This final revelation echoes the last chapter of Rosny's book and confirms the pessimistic tone of the novella. Atavism also plays a strong part in the novella in the character of Targ, who is described as a young adventurer in a society that does not care for such people. Whereas the last men are almost exclusively depressed and resigned to their fate, Targ is an anomaly in acting as if a future is possible for his community. He saves injured people, finds water, gets married and talks frequently about the times when the future was unwritten. But the story's ending is as grim as expected: Targ's community is destroyed and, as he refuses to be euthanized, he effectively

commits suicide by going to the *ferromagnets*. In this way: "a few particles of the last human life entered humbly into the New Life" (Rosny aîné, 1975, p. 177). Unlike in Verne's story, here atavism did not save man; rather, Targ's prowess and will to survive simply delayed man's disappearance. Still, the cyclicity of life is a recurring theme in both novellas. While Verne goes for a somewhat reassuring apocalyptic story, which states that man could always have a chance to do better, Rosny imagines that life is indeed a cycle but that humans are a negligible part of it. From this perspective, mankind's disappearance is tragic but ultimately natural. We can understand the message from both novels to be that while man obsessively destroys life around him - and even brags about it - he forgets to simply enjoy his time on Earth as a dominant species, one who could use its intelligence to work with other creatures to make life worth living.

Conclusion

In conclusion, these novellas offer interesting and profound points of view regarding matters that are still relevant today. While some of their motifs are outdated and their use of scientific theories is extravagant, their takes on subjects such as human progress, environmental issues and hubris strikingly echo the questions of our present time. Indeed, we can see that their commentary on the modern age sometimes hews closely to the views of current eminent thinkers on ecology. If they were not ahead of their time, as many XIXth century authors had already pointed out the dangers of industrialism, the way they question industrial growth and greed reminds us that we have always lived in a society that struggles with its natural environment. These texts invite us to understand that the fear of climate change is not strictly contemporary, but also that the anxiety related to the collapse of our modern world has only increased since the beginning of the XXth century. As our currently anticipated future remains unsettling, to say the least, now is as good a time as any for man to heed the warnings, from writers or scientists alike, if he wants to reduce the impact of the irreversible destruction caused by the Anthropocene.

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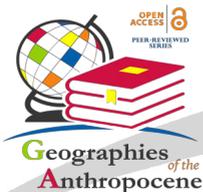
References

- Debourdeau, A., 2013, *Les Grands Textes fondateurs de l'écologie*, Flammarion, Paris.
- Jonas, H., 2013, *Le Principe responsabilité* [1979], Flammarion, Paris.
- Lovelock, J., 2008, *La Revanche de Gaïa* [2006], J'ai lu, Paris.
- Lovelock, J., 2017, *La Terre est un être vivant. L'hypothèse Gaïa* [1979], Flammarion, Paris.
- Næss, A. 1973, "The Shallow and the Deep, Long-Range Ecology Movement. A Summary", *Inquiry*, 16, 95-100.
- Rayor., D. J. (ed), 2014, *The Homeric hymns: A translation with introduction and Notes*, University of California Press, Berkeley.
- Rosny aîné, J.-H., 1975, *Récits de science-fiction*, Bibliothèque Marabout, Paris.
- Serres, M., 1995, *The natural contract* [1990], Translated by Elizabeth MacArthur and William Paulson, University of Michigan Press, Ann Arbor.
- Verne, J., 2019, *The Eternal Adam* [1910], Translated by Denis Bridoux, Kindle Edition.

"The Anthropocene has still the rank of a scientific hypothesis. Yet, it has already sedimented in our imagination with its stories of climate change and mass extinctions, global pandemics and energy crisis, technofossils and oceanic plastic, social justice and new minerals that are changing the face (and the bowels) of the planet. Investigating this imagination from multiple angles, *Narratives in the Anthropocene Era*, brilliantly edited by Charles Travis and Vittorio Valentino, is an indispensable tool for situating these stories into the conceptual horizon of the environmental humanities".
(Serenella Iovino, University of North Carolina at Chapel Hill)

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