

MAKING SENSE AT THE END OF THE WORLD: NONHUMAN READING AND
INSCRIPTION IN CONTEMPORARY LATIN AMERICA

A Dissertation

Presented to the Faculty of the Graduate School
of Cornell University

In Partial Fulfillment of the Requirements for the Degree of
Doctor of Philosophy

by

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August 2021

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MAKING SENSE AT THE END OF THE WORLD: NONHUMAN READING AND
INSCRIPTION IN CONTEMPORARY LATIN AMERICA

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Cornell University 2021

This dissertation examines how nonhuman agents are redefining how we think about reading, writing, and storytelling in contemporary literature, film and art from Argentina, Chile, and Mexico. It revolves around two intersecting foci. The first is how the concept of the Anthropocene and the understanding of the human as a geological force reveals the entanglement of the human and nonhuman. The second is the digital age and its implications for reading and writing as human agency becomes less exceptional in a world pervaded by nonhuman and technological forms of writing. If reading and writing are fundamental ways in which we make sense of the world, this dissertation looks into how these are repurposed in literature, film, and art in the present through the mediation of nonhuman agents. Throughout its four chapters, I show how Pola Oloixarac's *Las constelaciones oscuras*, Samanta Schweblin's *Distancia de rescate*, Patricio Pron's "Como una cabeza enloquecida vaciada de contenido," Patricio Guzmán's *Nostalgia de la luz*, Verónica Gerber Bicecci's *La máquina distópica* and *La compañía*, and Mike Wilson's *Leñador* and *Ártico* provide platforms that showcase both at the level of content and, more importantly, of form, different engagements with nonhuman agents that displace human exceptionality. I do so by grouping these objects around four nodes: environmental agencies, nonhuman scales, future reading, and database writing.

BIOGRAPHICAL SKETCH

Matías B. Oviedo grew up in Córdoba, Argentina, where he completed a *licenciatura* in literature at the Universidad Nacional de Córdoba (UNC) with a thesis on Uruguayan writer Mario Levrero. Before joining Cornell University in 2015, where he obtained a Master of Arts, he worked in secondary and higher education in different institutions throughout Argentina, Netherlands, and the U.S.

A mi padre, por los libros y las piedras.

ACKNOWLEDGMENTS

I would like to thank the members of my special committee. My advisor, Edmundo Paz Soldán, for his constant advice and support, our conversations and his kindness. His class on mass media allowed me to explore questions in media theory that are at the core of this dissertation, and his remarks helped bring a series of notes into a coherent work. Karen Pinkus has been a part of this project from the very beginning; her work, its originality and rigor, have been an inspiration for me. Her comments and encouragement gave me the freedom to explore areas I never thought possible. Bruno Bosteels first welcomed me at Cornell and taught me how to do research. His rigorous comments have greatly shaped my writing, and his classes opened my eyes to unique forms of interdisciplinarity. Tom McEnaney was a great influence in the earlier parts of this process. I thank him for his suggestions.

I am incredibly thankful for some of the classes I was able to take at Cornell. Two of these were taught by Tao DuFour—I thank him for his generosity and curiosity. His two classes shook the foundations of what I thought one could do in the humanities. Courtney Roby’s class on data corruption helped me develop a critical approach to digital culture. Graciela Speranza’s class introduced me to Verónica Gerber Bicecci, allowed me to tie many loose ends together, and our conversations helped me channel my intuitions.

I would also like to thank the countless members of the Cornell community whom I cannot name individually for reasons of space: you know who you are and I thank you.

Last but certainly not least, I thank my family. I would never have made it without my father, Rodolfo, who inspired me through his example and made me believe in myself through his support. I truly wish you were here to see this come to fruition.

My sisters, Catalina and Julia, and my aunt, Laura, for holding me together throughout. Finally, to Eun A, for the love and the infinite joy, for helping me push through every day, and for her careful edits.

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INTRODUCTION

Reading and inscription have long been construed as exclusively human activities. No other text encapsulates the status of the written letter in Latin America better than Ángel Rama's *The Lettered City*, where he describes how the organization of Latin America stemmed from the prestige of the written word as the imperishable sign: "Writing boasted a permanence, a kind of autonomy from the material world, that imitated eternity and appeared free from the vicissitudes and metamorphoses of history" (6).

When explaining the supremacy of the lettered city in Colonial Latin America, Rama posits that "[t]he principal explanation for the ascendancy of the *letrados*, then, lay in their ability to manipulate writing in largely illiterate societies (...) writing took on an almost sacred aura, and doubly so in American territories where it remained so rare and so closely linked to royal authority. During the nineteenth century, when the official influence of Catholicism began to decline, the secondary religion of letters was poised to take its place" (24). Not only reading, but also writing was the exclusive property of the *letrados*, so much so that Rama will say that "[t]he exclusive place of writing in Latin American societies made it so revered as to take on an aura of sacredness" (29).

It is this exclusiveness what I will focus on here.

Into the twenty-first century, reading and writing are not only no longer exclusive to the *letrados*, but as I will argue here, they are not even exclusive to humans. If alphabetization, availability of reading material, and the practice of writing became widespread throughout the twentieth century, these have been accompanied by simultaneous transformations that have made it such that today such exclusiveness is

being disputed by different forms of nonhuman agencies.

This dissertation revolves around two intersecting foci. The first is the digital age and its implications for reading and writing as human agency becomes less “exceptional” in a world pervaded by nonhuman and technological forms of writing. The second is how the concept of the Anthropocene and the understanding of the human as a geological force reveals the entanglement of the human and nonhuman and it brings forth questions of agency, specifically pertaining to forms of inscription. In brief, if reading and writing are fundamental ways in which we make sense of the world, I look into how these are repurposed in literature, film, and art in the present through the mediation of nonhuman agents.

We are in the decline of bookish culture, at a time when “[t]he screen, the medium, and “communication” have surreptitiously replaced the page, letters, and reading” (Illich 1). The book has long stopped being “root-metaphor of the age” and, more importantly “[t]he alphabetic text has become but one of many modes of encoding something” (3). New media demand from the reader habits opposite to those cultivated in scholastic readings. Illich emphasizes how the conditions for the appearance of scholastic reading were extremely fragile and depended on a series of variables; there is nothing intrinsic to the book format and, more specifically, to the page as a unit of meaning, that makes it a “logically necessary step in the progress toward the rational use of the alphabet” (*ibid.*). In this sense, it belongs to of an era that is now at its dusk. Although for centuries the book was taken for granted, as the quintessential medium of both literature and other forms of knowledge, the book is only one stage in a long history in which different media have succeeded one another as support for the ideas of humans.

The end of the book does not mean that books are no longer being produced or read, in fact, more books are being printed today than ever before in history.¹ What I mean when I talk about the end of the book is that it has lost its hegemony, that is, it is no longer the dominant mode of production, a position that has been occupied by the screen.

The debate around the end of bookishness has been around for decades now, at least since the 1970s (see Steiner). Nowadays, as shown by Craig Epplin, books are often written against their own format or they seek to go beyond and expand its physical limitations. Some of the cases analyzed here are, in fact, examples of that: the most salient being Verónica Gerber Bicecci who came to literature after establishing herself as a visual artist and approaches her books often as re-mediations of her installations. However, in terms of their materiality, most of the fiction analyzed here follows the conventions of bookishness, but they are books of the end of books. As Claudia Kozak has explained, although literature published in books has not ceased, since they continue to be written and read, it has been courting its own end for quite some time. In spite of this and the increasing presence of other platforms, the book still shows its resilience, one that can be attributed to a number of factors including its longevity relative to other formats and its easy storage and access.² At the same time, it could be argued that the writers, filmmakers, and artists analyzed here are in many ways heirs to the *letrados* described by Rama. This is not an aspect that will come under debate here, but it is

¹ For instance, in 2018, 62180 new titles were published in Spain (INE), 27428 in Argentina (Cámara Argentina del Libro) and 21750 in Colombia (Cámara Colombiana del Libro), the three leading Spanish-speaking countries in terms of publishing.

² A common issue with digital artifacts is that—unless they are supported by a robust infrastructure—they are at risk of becoming inaccessible due to either the hard or software they rely on becoming outdated; something that is not an issue for paper that only requires certain humidity conditions for its long-term preservation.

rather. I will argue here that they are displacing the lettered culture from within and, by acknowledging and engaging with forms of nonhuman agency, they are displacing the exclusiveness of not only their own class, but that of the human as a whole.

Even though these questions inform this work, I am interested here in something that, in my view, is far deeper and transcending than a matter of format (the book) or code (the alphabetic text). What this dissertation explores are different ways in which reading and writing are being displaced from a human-centered perspective due to the intrusion of nonhuman agencies.

As Katherine Hayles has put succinctly: “The Age of Print is passing, and the assumptions, presuppositions, and practices associated with it are now becoming visible as media-specific practices rather than the largely invisible status quo.” (2012 2). With the advent of digital media, other forms of reading are expanding the definition of literacy commonly associated with alphabetic reading. This means that other forms of reading that are different from the kinds of close reading historically favored in the humanities need to be considered. One of these is what Hayles calls “hyper reading,” an umbrella term that includes “skimming, scanning, fragmenting, and juxtaposing texts” (12), among others—activities that are more concerned with finding specific information rather than actually reading the texts. The other is what she calls “machine reading:” analysis through machine algorithms. Instances of machine reading are those where “human interpretation takes a backseat to algorithmic processes” (30). Here, reading is first and foremost carried out by algorithmic processes (written by humans, to be sure) and only getting to human eyes in second term. That is, not only are the

platforms we are using to read changing (from the page to the screen), but the change in medium is accompanied by a change in how we approach texts.

Moreover, both reading and writing have become algorithmically assisted processes. Algorithms not only are becoming “more adept at reading cultural data” (Finn 12), but they are also taking on new forms of intellectual labor: “They are authoring and creating, but they are also simplifying and abstracting.” (*ibid.*). Following Hayles and Finn, their posthuman approach to literacy puts into question assumptions about what it means to be an author and its association with the transcendental subject, and one could argue that once the author can no longer be identified with a “stable and singular human individual,” authorship becomes distributed between human and machine. Machines allow us to write, but “they are also capable of writing themselves—even if their writing is computational, rather than verbal, and thus unreadable to (most) humans,” (Karkulehto 15) meaning they also introduce their own challenges to legibility, in what we will call here new forms of opacity. If we pay attention to the role nonhuman actors play in the textual practices “where processes are distributed across multiple domains, and across networked devices and technologies of inscription,” (Gourlay 484) these new assemblages of meaning necessarily lead to a questioning of the authorship/tool binary.

All of these point to a complexity of human/nonhuman entanglements: “Code permeates language and is permeated by it; electronic text permeates print; computational processes permeate biological organisms; intelligent machines permeate flesh.” (Hayles 2005 247). Eric Sadin has described this phenomenon as the becoming-technical of human environments, where mediations have multiplied in such a way that

they have constructed a new universe. Humans are no longer in a natural environment but in an artificial one.³

To this, we should add what Erich Hörl (2015) has called the process of “general cybernetization,” a cybernetic transformation of human reality which has “revolutionized our relations to things, to living entities, to nonhuman entities in general, to the earth, and lastly also to ourselves and others” (2) over the past century. In cybernetic relations, he claims, what occurs is a shift in the status of objects towards systemic, active, intelligent, and communicating objects. A shift that implies a redefinition of our objective condition and the place we occupy as subjects. If the modern interpretation of the world can be characterized through the forgetting or exclusion of technical object, which “are minorized to instrumental and utilitarian functions that correspond to the artisanal and agricultural world of the working man rather than the already extremely mediatized, industrial, technological world” (3), then this modern hermeneutic field must be undermined through the evolution and proliferation of technical objects, since technical activity has become a form of distributed agency, in what Hörl calls an expression of a distributed “ecotechnological subjectivity” (6). It is this subjectivity that is at stake in the objects analyzed here, a subjectivity that is described as the “integration of different psychic, collective, and technical-medial milieus of subjectivization” (9), and it follows the “scriptural subjectivity” of the age of writing. This makes Hörl arrive to the conclusion that the subjective transcendentalism of the age of writing gives way to a transcendental

³ This development is key for the questioning of the foreground/background interplay analyzed in Oloixarac and Schwebelin’s novels in chapter 1.

technicity of our age, which he calls an “ecotechnological process culture.” After cybernetics and general systems theory, communication ceases to be an exclusively human matter. This de-anthropomorphizing of communication extends it to all living and artificial beings (Rodríguez 97-98).

Pieter Vermeulen expands on how our lived environments are technically embedded: “In a digital age, the media through which we record reality are as much a part of our lived environment as the natural world.” (26). Therefore, digital media and natural environments are deeply entangled in our experience of the world. Vermeulen allows us to transition into one final phenomenon that has fundamentally shifted how we think about human and nonhuman entanglements in the present: the concept and the phenomenon of the Anthropocene. The conflation of human and deep time, and the becoming-geological of human agency has provided a new frame of reference to think about the entanglements of the human and the nonhuman in the twenty-first century. The concept of the Anthropocene came about with the turn of the century and it was first described by Paul Crutzen and Eugene Stroemer in 2000. It proposes a new geological era initiated by the effect of human activity on earth systems. The authors recognize attempting to assign a specific date to the onset of the Anthropocene as “somewhat arbitrary,” and although they propose the latter part of the eighteenth century, they are aware that “alternative proposals can be made.” They choose that date because “during the past two centuries, the global effects of human activities have become clearly noticeable,” (17) and they cite the growth in atmospheric concentration of greenhouse gases coinciding with the invention of the steam engine in 1784 as coinciding. According to Dipesh Chakrabarty, anthropogenic explanations have led to

a collapse of the modern distinction between natural and human history: in this day and age, humans are to be considered a force of nature in the geological sense.

It is not that before the advent of the concept of the Anthropocene humans did not modify and affect earth system, but what has changed is the scale at which this takes places, which has been subjected to a rapid and continuous acceleration since the mid-twentieth century in particular, in what has been called the Great Acceleration (Woods). In Vermeulen's words, “[t]he Anthropocene has burst upon the scene in the new millennium as if we suddenly realized that we have always been enmeshed with nonhuman agents.” (25).

Not only are digital media and natural environments “deeply entangled in our experience of the world,” (Vermeulen 27), but media technologies play a crucial role in registering and making changes to our world legible—these are only made possible by technological and computational aids. As Nicholas Mirzoeff explains, changes to the earth system including rising temperatures and carbon dioxide levels only become legible through “computational models supported by a knowledge infrastructure” that include “weather observation, satellite data, radar readings,” (216) among others. At the same time, these technologies not only make environmental degradation legible, but they also contribute to it through both the extensive use of rare mineral and the creation of devices that are becoming increasingly short lived before the fall into obsolescence and become part of the rapidly growing mountains of e-waste (Parikka 2015).

This reliance on data in our informative-intensive milieu is relevant to literature because, as argued by Katherine Hayles, it means a change in the position narrative

occupies. I quote her: “Whereas in the classical Greek and Roman era narrative was accepted as an adequate explanation for large-scale events—the creation of the world, the dynamics of wind and fire, earth and water—global explanations are now typically rooted in data analysis” (2012 181). Databases are essential for understanding large-scale phenomena and, even there, narrative plays a crucial role “in the interpretation of the relations revealed by database queries” (182). As we will see in the ensuing chapters, the relation between machine reading, databases, visualization, and nonhuman agencies is crucial to this dissertation. I will argue that the objects analyzed here show how narrative and storytelling are as relevant as ever in helping us make sense of these human/nonhuman entanglements.

In their introduction to *Anthropocene Reading*, Tobias Menely and Jesse Oak Taylor highlight the shared history of geology and literary studies, remarking that the literary dimensions of geology, “a practice of reading stratigraphic inscriptions and narrating evocative, if improbable, stories” (2) become even more pronounced in the Anthropocene. At the same time, they outline its literary dimensions as an epoch that can be read as a literary object, while it is also an event that “may unsettle our inherited practices of reading” (5). This is how the issue speaks to scholarly works on literature as this dissertation.

When thinking about the agency of nonhuman actors, if we define agency as the capacity to have an impact, “to leave traces for others to read,” (Vermeulen 25) then it makes sense to think about agency as a form of writing. If the Anthropocene, by showing how nature and culture are necessarily intertwined, it also points to the need for an interdisciplinary approach that brings together the natural and social sciences with

the humanities. In this context, literature can help us see to what extent the Anthropocene is a matter of reading and writing, of decoding and inscription.

Just as there is no part of the earth system unaffected by the traces we leave in the atmosphere, neither is there any aspect of our surrounding world that is not being subjecting to data harvesting, which allows us to conclude that the Anthropocene world is a reality “saturated by the almost boundless proliferation of data, inscriptions, and signs” (26). In a world and an era where nothing is unmarked by traces both human and nonhuman, but it is rather “overwhelmed by nonhuman and technological forms of writing,” (28) literature’s capacity to interrogate itself gains new relevance.

In this context, material realities also need to be seen under a new light, since they “merge into discursive dynamics tracing the signs of new configurations” (Iovino and Oppermann 448). This is what Serenella Iovino and Serpil Oppermann call “the material turn” in ecocriticism, which advocates for the search of new conceptual tools aimed at understanding the connections between matter and agency and, at the same time, the intertwining of bodies, natures, and meanings. Humans share a field of distributed agency with other actors that create meaning regardless of their intentionality. Therefore, they extend the understanding of material and semiotic-discursive dynamics to “every existing thing and occurrence.” This means that our interpretive practice (reading, broadly conceived) can and should extend into these other material expressions, which means that matter can be construed “as text, as a site of narrativity, a storied matter, a corporeal palimpsest in which stories are inscribed” (451) since it acts as a text composed by multiple agencies: material, semiotic, and discursive. In addition to this, the discipline of biosemiotics, which studies the “semiotic and

communicational processes in and between organisms” (Maran 141), shares a common ground with material ecocriticism in that they both are attentive to the connections between the physical realm and meaning processes.

These perspectives allow us to confirm that “there are actually manifold nonhuman agencies involved in the creation of literary texts” (Lummaa 42). Therefore, the field of literary studies needs to develop new perspectives that take into account not only text, author, and reader, but “all the relevant agents and factors contributing to a given text, whether they are beings, spaces, or historical, natural, textual, cognitive, or social processes” (Karkuletho et. al. 8).

By systematically examining these processes of redefining human agency in storytelling, I seek to bridge two emerging trends within Latin American studies that have heretofore been disjointed: on the one hand, discussions around the Anthropocene and the breach of the nature-culture divide and, on the other, those surrounding cybersculture and the uses of digital media. As will become evident here, artists, filmmakers, and artists from Latin America have taken a new-found interest in the nonhuman. Latin America has a long history of engaging the nonhuman that can be traced back to precolonial and still alive in Amerindian worldviews.⁴ If we agree with Maristella Svampa (2019) that not all cultures nor all epochs (even in the West) developed a dualist conception of nature and that not all peoples looked to isolate nature nor consider it a separate dimension that is exterior to and in service of the human (33), then we can say that dualism and instrumentalization of nature have long been in conflict

⁴ See, for instance, De la Cadena, Viveiros de Castro, and Kohn.

and coexisted with these other understandings of the nonhuman. As we will see, the artists, filmmakers, and writers analyzed here acknowledge and engage with these worldviews and provide a new frame of reference to think about them by putting them in conversation with other discourses.

The relevance of Latin America is owed not only to the particular place a distinct form of legibility occupied in its civilizing project (as shown by Rama), but it also played a crucial role in the systematizing of nature in the second half of the eighteenth century, in what Mary-Louise Pratt has called “the second discovery” of the Americas. At the same time, this systematizing circles back to the *letrados* since it “was to assert even more powerfully the authority of print, and thus of the class which controlled it” (Pratt 30). The explorations of the continent laid the ground for the aspiration of mapping “of every visible square, or even cubic, inch of the earth’s surface” (*ibid.*). This was a second chapter in European imperial aspiration in Latin America, which already played a key role in providing the material grounds for the European modernizing project that was only made possible by the exploitation of its human and nonhuman resources. As show by Horacio Machado Aráoz and Orlando Bentancor (among others), the exploitation of silver mines that started halfway through the sixteenth century help fuel the first global economy. Pratt traces a continuity between the early extractive period and the later carried out in the name of natural history, which provided the means for “territorial surveillance, appropriation of resources, and administrative control” (38). Finally, she subsumes these under a same imperial gaze, which she defines as “an urban, lettered, male authority over the whole of the planet; it elaborated a rationalizing, extractive, dissociative understanding which overlaid functional, experiential relations

among people, plants, and animals.” (38) A gaze that the narratives analyzed here decenter by way of the incorporation of the nonhuman.

This dissertation examines a group of objects that ranges from novels to a short story, to a documentary film to a photo novel and a digital art installation produced over the past decade in Argentina, Chile, and Mexico. It is organized in four chapters, each with two distinct—yet related—parts that examine the issue through separate objects. “Environmentally Distributed Agencies” deals with two Argentine novels: *Las constelaciones oscuras* by Pola Oloixarac and *Distancia de rescate* by Samanta Schweblin. In it I study how these two novels redefine landscape writing in light of pollution and data mining and offer stargazing and a dialogic structure as answers. I argue that Schweblin’s novel puts into question the capacity for narrating a space that becomes unrecognizable and resorts to a second voice. In my second chapter, “Storytelling and Nonhuman Scales,” I look into “Como una cabeza enloquecida vaciada de su contenido,” a short story by Patricio Pron, and Patricio Guzmán’s *Nostalgia de la luz* and consider their adoption of nonhuman scales—that is, deep time—as storytelling perspectives. The third chapter is entitled “Reading the Future,” where I analyze Verónica Gerber Bicecci’s use of algorithmic and database writing to imagine a new form of living with the nonhuman in her book *La compañía* and her digital artefact *La máquina distópica*. Finally, chapter four, “The Database at the End of the World,” examines two novels by Mike Wilson: *Leñador* and *Ártico*. In it I propose to read the list and the database as two forms that engage both a relation to the world and question the afterlives of human archives.

Even if representation of these phenomena can be interesting, this dissertation is

more concerned with how these transformations register at the level of form. That is, how nonhuman agencies are interrupting old models of reading, how they are inspiring new forms of storytelling that adopt different perspectives, how they are questioning conceptualizations of the future, and how they are thinking about the legibility of the human archive. In those cases where reading and inscription are represented, I will focus on how these representations interact with the form by modifying it. That is, I argue that these representations model how to think about and carry out reading and writing in the present.

Some of the guiding questions are the following: How is the nonhuman discussed in literature, art, and film from Latin America? How are nonhuman agencies expanding the ways in which these are produced? How are practices of storytelling, narrative scale, future reading, and narrative organization engaging different conceptions of reading?

CHAPTER 1

ENVIRONMENTALLY DISTRIBUTED AGENCIES

Through an examination of different developments in environmental thinking, in which classical notions of the environment as a backdrop have progressively collapsed, the present chapter will propose an “ecological reading” that puts forth new forms of interaction whereby categories such as “subject” and “object,” and “background” and “foreground” are forms of “becoming-environmental” (Hörl 2018). I argue that Pola Oloixarac’s *Las constelaciones oscuras* (2015) and Samanta Schweblin’s *Distancia de rescate* (2014) offer what we could call a post-natural and post-instrumental understanding of the “environment,” revealing new forms of environmental agency and entanglements—spatially distributed reading.

The two novels engage with nonhuman agencies. In Oloixarac’s novel, I focus on the reading of the stars as a form of reading the nonhuman and a genetic data mining machine as a device of nonhuman reading. In the former, the expectations are subverted as the novel proposes to read the constellations not by connecting the bright stars (as in the Western tradition), but the way the Incas used to do it: by reading the dark spaces in between—hence the title of the novel. In the latter, I consider the genetic data mining machine as an example of post-human reading because it flips the directionality of reading: instead of doing the reading (as the subject of reading), the human is the one being read, (becoming the object of reading). In Schweblin’s novel, I study the transformation of space driven by a large-scale production of soybean; the novel offers new frames of legibility for said space. In the process, Schweblin’s book

puts into question the intentional subject's capacity for narrating a space that becomes unrecognizable and—to do so—resorts to a second voice. Thus, what emerges is a dialogical narration that removes itself from a position of authority to a position of listening.

1. 1. Oloixarac: Mapping the World

Pola Oloixarac's *Las constelaciones oscuras* is divided in three parts, organized chronologically with three different protagonists: the first one centers around Niklas Bruun, a botanist in the late 19th century, who is looking for *Crissia pallida* specimens, a fictional plant that only grows on the island of Juba; the second part features Cassio, a hacker at the dawn of the popularization of computing; the final part follows Piera, a biologist, as she works with Cassio on the design of "Estromatoliton," a powerful machine for genetic data mining. Old and new forms of legibility and illegibility are at the center of the novel, one that goes from the cataloging and study of nature to the writing of algorithms to a new form of "reading" that is data mining.

Making the World Legible

Bruun is a "herborizer"¹—a figure that emerged in the mid-eighteenth explosion of travel literature. This figure is not new to the literary tradition, as scientific discourse

¹ In her seminal work, *Imperial Eyes: Travel Writing and Transculturation*, Mary-Louise Pratt defines this figure as follows: "Alongside the frontier figures of the seafarer, the conqueror, the captive, the diplomat, there began to appear everywhere the benign, decidedly literate figure of the "herborizer," armed with nothing more than a collector's bag, a notebook, and some specimen bottles, desiring nothing more than a few peaceful hours alone with the bugs and flowers." (26)

served as a model for Latin American narrative during the 19th century.² Bruun is a visitor in a strange land on a mission to collect specimens and study an unknown species. His enterprise is what Mary-Louise Pratt has called “interior exploration,” which became part of a shift at the end of the 18th century from the “maritime paradigm” that had dominated the previous three centuries; having charted the oceans and coastlines, it was now the time of the inland. As such, it is the second stage in the exploration of the world, and Bruun is a key agent in this exploration. In charting the unknown territories, Pratt highlights the Linnean system as praised for its capacity to turn chaos into order and claims that it “launched a European knowledge-building enterprise of unprecedented scale and appeal” (25). The system’s creator Carl Linnaeus himself called the classification “the Ariadne thread in botany” (*ibid.*), the appeal of which emanated from the fact that it was designed to classify all the plants in the world. In other words, it was a standardized form of making the world legible through its classification. As we will see, this legibility is key throughout Oloixarac’s novel.

Classifying the world made it narratable: “With the founding of the global classificatory project, on the other hand, the observing and cataloging of nature itself became narratable. It could constitute a sequence of events, or even produce a plot. It could form the main storyline of an entire account.” (*ibid.* 26). If the world appears to our eyes as a chaos, classification and narration are ways to make chaos into cosmos—thus the herborizer’s ultimate mission was to make the world readable. To put it in a spatial metaphor, cataloging nature made the abstract earth into a linear, apprehensible

² See Gonzalez Echevarria, Roberto. *Myth and Archive*.

story to be told and read, which makes Linnaeus's aforementioned metaphor of the Ariadne thread even more fitting.³ Indeed, this classification of the world is also an objectivization: it stems from the assumption that the world is an object that *can* be known by a subject. Moreover, Pratt underlines the power dynamics underlining the three colonial interests that financed these expeditions: “territorial surveillance, appropriation of resources, and administrative control” (38). Even if the explorers themselves did not have this in mind, knowledge of the world was a form of power and a promise of control. Moreover, her words underline the key idea that classification poses as a possible transition to storytelling, and narration emerges as a form of turning chaos into cosmos. We make the Earth readable by bringing it into our scale; we break it down into a grid that makes its vastness apprehensible and leverage scales that would help us breach distances that would be insurmountable without them.

In Latin America, this was tied to the “lettered city” that made writing its main organizing tool and where “[s]uch is the nature of the order signs that it privileges potentiality over reality, creating frameworks that, if not eternal, have lasted at least until the late twentieth century” (Rama 9). This lettered culture aimed to “give an account of the Earth and the world” (Vital 18) and stemmed from an assumption of legibility between the territory and the letter; in other words, the letter could organize the territory and make it legible. The ultimate goal was mapping “every square, or even cubic, inch of the earth’s surface” (Pratt 30), with the assumption that, in time, there would be no uncharted territory left. This is important for Oloixarac’s novel because it traces a continuity between the naturalist of the first part, and the world of

³ This will become important later in this chapter when we look at the subsequent sections of Oloixarac’s novel where linearity gives way to the network.

big data in the third, where “all science [becomes] the science of big data” (Bridle 93).

In this way, the Internet embodies not only the desire to know and understand the world by making it into a code, readable, and accessible to all, but seemingly its fulfillment. At the same time, as we will see, the code behind that code remains a well-kept secret, invisible even to its makers.⁴

To return to the novel, Bruun’s visit to the island coincides with a very rare astronomic phenomenon: the transit of Venus, which is when the planet closest to Earth passes between the Sun and our planet, making it visible as a small dot contrasting against the solar disk. This happens approximately every 130 years, and always in pairs with an eight-year distance (the latest being in 2004 and 2012). I highlight this because the choice of this phenomena is not innocent: the transits of the eighteenth century (in 1761 and 1769) marked a milestone in the configuration of the international scientific community, for they brought astronomers from all around the globe together in an effort to measure the time it took for Venus to transit over the sun (Wulf). An accurate measurement was known to be the key to measuring the distance between Earth, Venus, and the Sun, and to have a better understanding of the dimension of the solar system and our relative position in it. The observation of this phenomenon (over a century before the events in the novel take place) was a milestone in the history of science and its ability to measure not just the surface of the Earth, but our place in the cosmos. It could be said, then, that the observation of the transits allowed scientists to get an idea of the orientation of the Earth, to make sense of our

⁴ “Even the engineers behind some of the most successful and ubiquitous algorithmic systems in the world —executives at Google and Netflix, for example— admit that they understand only some of the behaviors their systems exhibit.” (Finn 15-16).

position relative to the closest celestial bodies. At the same time, the international effort its study entailed revealed the need for standardized systems and units of measure that would allow for fluid communication across institutions and nations.

Upon his return from his expedition, Bruun writes *De Flora Subterranea*, where “[s]us notas trazan sistemas de cuevas que se hunden cientos de kilómetros en el Atlántico negro: reinos enteros donde los seres se apartan de la representación de la naturaleza” (24).⁵ This is a key moment, when the naturalist puts his notes into a cohesive narrative that aims to describe the world. The theory he develops there is concerned with the moment when life expanded from the ocean to the land, and shows connections between the human and nonhuman, laying the basis for the project of the “Estromatoliton.” His idea of nature also anticipates one that has gained new relevance in the present: that of an entangled mesh, a web, a system, or a network.

Whatever Works Makes Sense

If Bruun was at a turning point in the development of the natural sciences, Cassio is the protagonist of another revolution: the popularization of programming languages and the rise of personal computers. This moment brings about new forms of appropriation and use, giving way for the blossoming of hacker culture that Cassio embraces. Like Bruun, Cassio is a writer but instead of writing *about* existing species, his task is one of creation—he rewrites and creates code. With an education in cryptography, he becomes a hacker and dreams about his programs being able to learn by themselves, that they acquire autonomy and live their “algorithmic lives” without

⁵ “His notes trace cave systems that sink hundreds of kilometers into the black Atlantic: entire kingdoms where beings withdraw from the representation of nature.”

revealing their code. During his study he writes a thesis: “Describía un conjunto de transformaciones algebraicas cuyas propiedades permitían concebir un nuevo tipo de algoritmos basados en la encriptación de clave pública, una forma de computación encriptada para ocultar procesos complejos en servidores públicos, bajo las narices de los usuarios” (88).⁶ The creator wants his creatures to live without revealing the mechanism that powers them, the algorithm that remains encrypted; it is only through this illegibility that they will preserve their effectiveness.

At the same time, Cassio weighs the future legibility of the algorithms he writes: “¿qué pasa si empezamos a escribir código que ya no podemos leer? Los algoritmos son como una nueva especie adaptativa, una ralea potencialmente superior al resto de las especies, porque adquieren la forma de la verdad muy rápido y se mezclan con ella, son el medio y el mensaje” (123).⁷ He compares them to the scriptures and describes them as being capable of regulating people’s lives. The algorithm is a form of language at its most performative level:⁸ it is language that *does*, which explains why Cassio identifies them as living creatures. In this sense, the novel goes from the study and classification of living beings to the creation of programming languages that —even when they cannot be called “living”—behave with the same rules.

⁶ “It described a set of algebraic transformations whose properties made it possible to conceive a new type of algorithms based on public key encryption, a form of encrypted computing to hide complex processes on public servers, under the noses of users.”

⁷ “What if we start writing code that we can no longer read? Algorithms are like a new adaptive species, a breed potentially superior to the rest of the species, because they acquire the form of the truth very quickly and they mix with it, they are the medium and the message.”

⁸ By “performative” I mean J.L. Austin’s definition as “it indicates that the issuing of the utterance is the performing of an action” (6).

The most important question here, however, is the one that opens the quote above: what happens if we start writing code we can no longer read? Maybe we should reframe the question and ask what happens when the algorithms we write behave in ways we do not expect, and we do not fully understand. This is already happening: “Algorithms have generated mathematical proofs and even new explanatory equations that defy human comprehension, making them ‘true’ but not ‘understandable’” (Finn 44). In this view, their effectiveness hinders their intelligibility: it does not matter if they are incomprehensible as long as they do what we want—what they are programmed to do. The novel provides an interesting passage in relation to this: “Con las trazas genéticas, todo empezó a cobrar sentido, realmente empezó a funcionar. Algunas porciones de la historia empezaron a quedar claras, definidas, y entendemos que es el camino para hacer funcionar a Estromatoliton. Pero no sabemos exactamente por qué funciona, ni si va a funcionar a escala” (181).⁹ What makes “sense” is their own work: even if they are unable to understand why or how Estromatoliton works, the fact that it does is all they need to know. This is a redefinition of sense: whatever works makes sense, even when it is in fact incomprehensible.

At the same time, the opacity of computation is twofold, for most of us do not understand how the algorithms regulating our lives work. This is true even for experts: “The aggregation of complex systems in contemporary networked applications means that no single person ever sees the whole picture” (Bridle 40). To add to this is what Alexander Galloway calls the “occult logic of software:” “software hides itself at

⁹ “With the genetic traces, everything started to make sense, it really started to work. Some portions of the story began to become clear, defined, and we understand that it is the way to make Estromatoliton work. But we don't know exactly why it works, or if it will work at scale.”

exactly the moment when it expresses itself most fully” (292). This has led to activism for open source that becomes available to users, thus making it more transparent while at the same time open for its editing.¹⁰

Oloixarac’s novel is concerned with how to inhabit a world that is becoming increasingly illegible and simultaneously unnarratable; and how to reconcile binary code and alphabetic language, the very matter of literature, which introduces the problem of translation. The answers the novel provides are not completely original: one on the level of the concept and another, the plot. For the first one, instead of trying to shed light on the darkness, one should try to inhabit the darkness, *make world of it*, and turn to other forms of opacity: a direction that has a fruitful history in twentieth century literary criticism.¹¹ Several quotes throughout the novel point in this direction, calling for the need to adapt to a world that has become illegible. As for the second one, Cassio and Piera collaborate to sabotage the data mining machine and render it useless. They do so by spreading a bio-informational virus throughout the network, thus interrupting the flux of legibility and making the machine itself visible. The machine reveals itself as it stops working; it becomes legible in its thingness when its functions are interrupted.

¹⁰ Galloway calls for an even more radical opening: “The open source movement, then, is not enough; something like an “open runtime” movement might also be required, in which the dialectic of obscurantism and transparency, a longtime stalwart in aesthetics and philosophy, is interrogated as a central problem, if not the central problem, of software.” (292)

¹¹ Here I have in mind the “linguistic turn” and, particularly, some of its later representatives such as Jacques Derrida.

The Things That Look at Us and We Do Not See

The third and final part of the novel trails yet another moment in the evolution of computation, in what Katherine Hayles described as a movement “out of the box and into the environment” (2009). Set in 2024, the world it presents is a projection of our present. Even if its title “Piera, 2024” does not include it, its real focus is Estromatoliton, a system that captures and reads human DNA. The way it captures information is through a series of BIONOSEs that are distributed throughout the national territory: “olían el aire en búsqueda de pequeños fragmentos de ADN, que secuenciaban en tiempo real y enviaban a una base de datos centralizada” (176).¹² These “noses” are a form of distributed computing in what has been called the “internet of things,” where data is transmitted over a network without requiring human-to-human or human-to-computer interaction. This part of the novel also marks the culmination of a sense of legibility that goes from Linnean taxonomy to modern computing to data mining.

As Erich Hörl has observed, “people exist in a broadband world in which they are permanently connected to and embedded in diverse objects that communicate and operate automatically and by now for the most part even bypass subjects altogether” (8). This is a form of “environmental agency,” which explains why theoretical descriptions of the culture have increasingly replaced the concept of “machine” with that of “object.” The object is not only distributed in the environment to the extent that

¹² “They smelled the air in search of small DNA fragments, which they sequenced in real time and sent to a centralized database.” This is what Paul Baran calls a “distributed network:” “an extremely complex network topology that contains within it a curious synthesis of both the web of ruin and the chain of triumph. The distributed or “mesh” network is spread out horizontally with a large number of links connecting all nodes. No single node acts as master of the network. Each node making local decisions about network topology and message sending, thus spreading organization and control is integrated broadly across the entire mesh.” (Galloway 288).

it becomes invisible, but it also has distinct forms of agency. Hörl calls this an “infrastructural revolution” whereby computation becomes embedded in the environment, and things (from mobile phones to smart watches, to activity trackers and smart clothes) are “connected to ubiquitous invisible computer networks” (*ibid.*). This also allows us to consider how environments have changed, since the becoming-environmental of computation means that environments “do not merely constitute the technological backdrop or distributed spaces that mediate the activities of human and nonhuman entities,” (Hörl 2018 155-156) but rather are directly entangled in processes of becoming. This, according to Hörl, is when “all worlding (*welten*) thus taking place reveals itself to be a transworlding (*umwelten*)” (156). As Mark Weiser, a pioneer on “ubiquitous computing” puts it: “The most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it.” (94).

This is what happens with “Estromatoliton.” It is part of an invisible network that blurs the boundaries between background and foreground. In a prophetic tone, Niklas writes in his diary: “hay tantas cosas que nos miran y no vemos” (213),¹³ a line that could be read as referring to the network’s invisibility. What we also have here is a blurring of the distinction between subject and object, for the “object” acquires subject-like attributes. This has consequences particularly when thinking about reading, since there is a transfer of the human from being the subject to becoming the

¹³ “There are so many things that look at us and we do not see.”

object of reading.¹⁴ Indeed, we are dealing with different forms of reading here—and the reading that is becoming hegemonic today is no longer alphabetic reading, but “algorithmic reading.” Hörl calls this the “anti-hermeneutic tendency” that has landed us in a post-hermeneutic moment: “data are no longer read in the traditional cultural-technical sense of subjects, but rather they are cybernetically processed, scanned, rearranged, filtered, and interpolated. Agency is also distributed throughout the environment, so the subject is no longer the supervisory authority” (2015 12). The loss of authority is no longer merely metaphoric, and reading is carried out without subjective intervention. The technical object has become “one of the main actors at the heart of the sense culture,” (5) which represents a fundamental shift the history of the subject and the object.

One of the fundamental shifts in reading happens at the level of the subject and object, particularly pertaining forms of agency and authority. Another shift happens in terms of its topology. The network structure is nonlinear, and the kind of “reading” it proposes differs substantially from linear, alphabetic reading: “informatic networks are relatively indifferent to semantic content and interpretation. Data is parsed, not ‘read’ in any conventional sense” (Galloway 290). This prompts Galloway to propose a new model of reading that supports the “anti-hermeneutic tendency of networks:” “one that is not hermeneutic in nature but instead based on cybernetic parsing, scanning, rearranging, filtering, and interpolating” (290-291). In his view, the question

¹⁴ As put by Jeffrey Di Leo: “You are being read by what you read. Google knows where you read; Apple knows what you read; and Amazon knows how you read. How does it feel to have the object of reading transferred from your book to yourself?” (3).

is no longer simply one of *logos* (discourse) but one of *ergon* (work), for networks are not simply textual entities but they are in constant labor.

However, Oloixarac's novel, as shown by Piera and Cassio's role towards the end, still recognizes the agency of the intentional subject.¹⁵ Their sabotage consists in spreading the power of "Estromatoliton" throughout the web, thereby decentralizing its power and distributing it throughout countless servers. This act is described as democratizing control and rendering the machine useless as a means of population control. As a consequence, the economic value that this method of control entailed plummets. Their intervention operates on an infrastructural level and is, just as the network itself, invisible, making them the unsung and unknown heroes of the story for preventing the deployment of Estromatoliton. In this way, the multiplication of the forms of agency does not necessarily delegitimize the intentional subject.

Piera and Cassio make the system visible by hacking, which is analogous to what the novel itself is doing: it turns our attention to these distributed forms of environmental agency, putting into question the conception of the environment as a backdrop. The novel makes the invisible visible, raises awareness about new forms of reading, and questions the subject and alphabetic modality of reading altogether. However, it fails to offer a strictly literary answer, as in what kind of literature can be written under the technological condition that would breathe new air into this art? Even in her juxtaposition of different stories, Oloixarac still privileges a linear reading that draws a chronological continuity between epochs. But *Las constelaciones oscuras* is at its best when it offers snippets on reading: in a context where reading has been

¹⁵ In this regard, it would be interesting to speculate what would happen if the title "subject" of the last section was not "Piera", but "Estromatoliton."

taken out of joint, we, as readers, need to stretch it further out; and here is where the novel recuperates an old form of reading—possibly the oldest one there is—as it turns to stargazing.

But before turning to stargazing, we need to delve further into the Estromatoliton. In Cassio's eyes: “La legibilidad del mundo, que había sido su ocupación, constaba de zonas lóbregas que la volvían asequible al mundo humano; ahora que la oscuridad era legible, se volvía lumínica. Pronto no habría donde esconderse, no existirían más cuevas ontológicas; sólo las trayectorias de los cielos mantendrían el contraste, el uno y el cero, la luz y la oscuridad” (197).¹⁶ Making the *whole* world readable is his job and, in doing so, he shines light: the extension of the map is such that there is no longer *terra incognita*. This aspiration is what Byung-Chul Han calls the “transparency society,” where “[e]verything must become visible. The imperative of transparency suspects everything that does not submit to visibility. Therein lies its violence.” (13) This all-encompassing map, however, brings about new opacities, one being the mechanisms that are put in place to produce visibility.

As I have said, the novel makes visible those mechanisms that normally stay invisible; it is trying to open the black box of our current culture.¹⁷ It does so by revealing how reading is not exclusive to humans and has become part of mechanisms of control that have been co-opted by State organisms. In the novel, the “Estromatoliton” is run by the newly founded “Ministerio de Traza,” a name that

¹⁶ “The readability of the world, which had been his occupation, consisted of gloomy zones that made it accessible to the human world; now that the darkness was legible, it became light. Soon there would be nowhere to hide, there would be no more ontological caves; only the trajectories of the heavens would maintain the contrast, the one and the zero, the light and the dark.”

¹⁷ This is a term used by Vilém Flusser to describe digital processes: “With word processors, writing by pressing keys has long since become an opaque process, an event that occurs in a black box to which the presser has no visual access.” (24).

could mean both a “plan to achieve an end” or “trace, design.” This Ministry is in charge of the accumulation of information on citizens and creating their “life trajectories” that include everything from their phone and transportation records to their credit cards and eventually their DNA. This is a clear allusion to Argentina’s last dictatorship (the self-proclaimed Proceso de Reorganización Nacional), its creation is part of a regional initiative that also includes Brazil called the “Proyecto de Reorganización Regional.” The question of (nonhuman) agency reappears, as in the following passage:

Se sabe que todos los consumos y las trayectorias vitales proyectaban la historia objetiva de cada persona, y sin embargo esa información no era legible por ninguna máquina. O sea, los algoritmos leían la vida pero nosotros no podíamos leerlos a ellos. La información estaba ahí, como con el genoma, pero faltaba afilar las herramientas para volverla legible (178).¹⁸

Here, reading has been delegated to the machine: it is able to process information at a scale and speed that is humanly impossible. As explained by Katherine Hayles, when dealing with issues that far surpass human scale, a collaboration between human and machine reading becomes necessary: “If events occur at a magnitude far exceeding individual actors and far surpassing the ability of humans to absorb the relevant information, however, “machine reading” might be a first pass toward making visible patterns that human reading could then interpret” (2012 29). The problem is that such a machine has not yet been created; so the information is being compiled but it remains illegible. Ostensibly, then, the novel suggests, the information compiled by

¹⁸ “It is known that all consumptions and life trajectories projected the objective history of each person, and yet that information was not readable by any machine. In other words, algorithms read life, but we couldn’t read them. The information was there, as with the genome, but the tools needed to be sharpened to make it legible.”

the machine could recover its legibility by aid of another tool. But this poses yet another problem—one of deeper consequences: not only is reading carried out by the machine, but the machine itself becomes illegible to the human. This is, indeed, a problem of distance and the impossibility of introducing distance as a form of clarity: “There’s no outside to the complexity we find ourselves enmeshed in, no exterior point of view that we can all share on the situation. The network that brings us knowledge wraps around us, refracting our perspective into a million points of view, simultaneously illuminating and disorientating us” (Bridle 206).¹⁹ In this way, the question of an exterior point of view becomes essential to the storytelling.²⁰

Designing the Senses

Even if the novel does not engage explicitly with new forms of agency under the technological condition, it poses interesting possibilities. By accumulating references to reading, scenes of reading and illegibility, the novel points to itself and its own legibility. This has been analyzed elsewhere by Mariela Blanco (2017) who presents the question of the conditions of legibility in relation to the historical context and describes the premise of both of her novels as “dar visibilidad a los entramados del poder como condicionantes de las subjetividades individuales” (5),²¹ but limits it to its immediate social context and does not pay closer attention to the radical

¹⁹ In Byung-Chul Han’s view, digital communication is abolishing distance: “Respect presupposes a distanced look—the pathos of distance. Today, it is yielding to the obtrusive staring of spectacle. The Latin verb *spectare*, from which spectacle derives, is voyeuristic gazing that lacks deferential consideration—that is, respect (*respectare*). Distance is what makes *respectare* different from *spectare*. A society without respect, without the pathos of distance, paves the way for the society of scandal” (2017 1).

²⁰ This will come back in Chapter 2 when discussing the Archimedean point in relation to *Nostalgia de la luz*.

²¹ “Giving visibility to the networks of power as conditioning factors of individual subjectivities.”

transformation of the subject-object relation at work. The novel, in this manner, prompts a rethinking of the place of reading in a new media ecology and, thus, of literature itself. Going beyond the rather predictable proposition of making the invisible visible, it advances a radical opening of the meaning of “reading.”

The novel also deals with big data in more than one way. Large volumes of data are seen as a challenge to legibility: “El enorme, nuevo continente de datos representaba el nuevo mundo por descubrir: había que diseñar los sentidos, el tacto, la vista, que pudieran percibir ese laberinto; construir un Leviathan hecho de formas de percibir e interpretar la información” (166).²² With these large bodies of information comes the need to create ways that make them both visible and legible. They are too much for our senses to apprehend; they become overwhelming, and the mediation of another technical device is needed to scale them down.²³ The data is described as a “world” in itself, analogous to the one Niklas Bruun was discovering in the late nineteenth century, but his world was still accessible through his senses, while Piera’s is not anymore. One of the problems of these data is precisely that: their size and scale and rendering the mass of information legible. At one point, Max enunciates the fundamental paradox with which he is trying to grapple: “Cada vez sabemos más de las cosas, las manipulamos mejor -dijo Max, como retomando una conversación que nunca terminaba-. Y cada vez nos son más extrañas. Se alejan” (194), proposing that having more information available can in fact lead to poorer legibility. Paradoxically,

²² “The huge, new continent of data represented the new world to be discovered: it was necessary to design the senses, the touch, the sight, that could perceive that labyrinth; build a Leviathan made of ways of perceiving and interpreting information.”

²³ Katherine Hayles, paraphrasing Lev Manovich, explains that the “database parses the world from the viewpoint of large-scale data collection and management” (176).

this is what occurs: “that which was intended to enlighten the world in practice darkens it” (Bridle 10).

One could pose this problem as a narrative question. Telling a story implies making selections; if a story wants to be legible, it needs to forget details. This is one of the problems at the heart of Borges’s story “Funes, el memorioso,” whose main character has an infinite memory and is incapable of forgetting—but, as Borges reminds us, he is also unable to remember: “You have to remember and you have to forget. You shouldn’t remember everything because, well, the character I wrote about, Funes, goes mad because his memory is endless” (1982 21). Thinking, remembering, and even living are all tied to forgetting, according to Borges. In “La postulación de la realidad”, he writes: “Nuestro vivir es una serie de adaptaciones, vale decir, una educación del olvido” (1974 218).²⁴

The problem with the endless accumulation of data is that it averts narration, as put by Han:

Narration practices selection. The narrative path is narrow; it admits only certain events. Thereby it prevents the positive from proliferating and de-individualizing. The excess of positivity that dominates contemporary society shows that it has lost its connection to narrativity. This also affects memory. It is narrativity that distinguishes it from storage, which simply works additively and accumulates (...) Today memory is being positivized into a pile of garbage and data—a ‘junkshop’ or storage unit stuffed full of ‘images of all kinds and origins, used and worn-out symbols piled up any-old-how.’ Things in a junkshop simply lie next to each other; they are not stratified. Therefore history is absent. The junkshop can neither remember nor forget (32).

Funes’s memory is like Han’s junkshop: he can neither remember nor forget. The same could be said about “Estromatoliton:” the accumulation of data it enables

²⁴ “Our living is a series of adaptations, that is, an education of oblivion.”

prevents narration. The problem, then, is not only that of turning chaos into cosmos, but extracting a narrative out of the swarm of data.²⁵ The (post)hermeneutic problem, then, is that “rather than a narrative in need of exegesis, it is now a data set in need of statistics” (Cramer 24). However, against Cramer, I will argue here for the sustained importance of narrative. What needs to be revised is the possibility of narrating these gargantuan swarms of data; that is, to the reevaluation of the subject-object relation and the standing of the environment and reading, we need to add narrativity in the questions brought about by *Las constelaciones oscuras*. As proposed by Hayles, “[w]hereas database allows large amounts of information to be sorted, cataloged, and queried, narrative models how minds think and how the world works” (2012 179).²⁶ Simply put, while recognizing the increasing importance of databases particularly pertaining to large scale phenomena, narrative plays a key role in the interpretation of the relations revealed by databases (*ibid.* 182).

Seemingly innocent, references to astronomical phenomena cross the whole novel: references to stars as points of reference in the night, the visible Milky Way as a background to a scene, meteor showers, are only a few examples of this. At first glance, these could seem to be mere allusions to the setting of the story: they orient the reader and create a world where the fiction takes place and in which we can take part; it is a world like ours, where there are things happening in the foreground as much as they do in the background, and these glimpses of the background reassert this.

²⁵ As Hito Steyerl formulates it as a matter of separating signal and noise: “It’s now a question of defining flocks, swarms, rhythms, and constellations within the deafening noise of intercepted data. But how exactly to separate signal and noise, or maybe rather how to define them in the first place?” (2). This distinction will become important when discussing *La compañía* in Chapter 3.

²⁶ The interaction between database and narrative will be explored in depth in Chapter 4.

Nonetheless, the reference to constellations in the title of the novel, as well as their centrality to the story's beginning and the end, hint that the stars are more than the context for the story—they frame the whole novel. Indeed, it opens and ends with the transit of Venus: “Una guerra se había gestado al interior de la máquina; adentro, nada había cambiado. Afuera, una tormenta de meteoritos rompía el cielo en haces azules” (237).²⁷ In *Las constelaciones oscuras*, then, one should read these frequent allusions to the sky as an advocacy for taking reading back to the stars. Quite literally, the novel turns our attention to the sky and urges us to read the stars. More than the backdrop, these fragments are pointing our attention to the things that we take for granted and to which we have stopped paying attention.

This reading of the stars also provides an interesting counterpoint to the environmental reading that Estromatoliton brings in play. The machine is a form of environmentally distributed agency whereby we are read as data by the network; we become objects of a reading of which the parameters are set by humans but the function is carried out by a machine. The former is a call for thinking about the stars as an active presence in our environment and offering a reading of them. Taken together, the novel is calling for a new environmental awareness in two-fold directions. That is, the opposition between “us” as reading subjects that interpret the environment in a one-way direction, against a passive environment that acts as a mere backdrop, is no longer useful: “the formation of fundamentally passive objects by active subjects, which had previously been the central activity of the sense-culture, is now morphed into the background, as technical objects in general find, for the first

²⁷ “A war had been brewing inside the machine; inside, nothing had changed. Outside, a meteor storm broke the sky into blue beams.”

time, agency in the sense culture and take on an autonomous status. The power of action is dispersed among and through them and is no longer focused on or assigned to the working meaning subject” (Hörl 2013 124). The environment has agency and we have become the objects that are being read.²⁸ The novel does this through a conflation of both very old and very new forms of reading—what Hayles calls “entanglement,”²⁹ whereby languages of different nature permeate each other.

The proposition of reading the sky reaches its zenith when the novel reaches the allusion to its own title in explaining how the Inca’s reading of the constellation differs from the Greco-Roman tradition. In the latter, stars are understood as the constitutive dots of larger patterns that, when seen together and in relation to one another, make the constellation visible and legible—as an animal or an anthropomorphic figure. For the Incas, on the contrary, the concept of “dark constellations” means that a constellation is understood by the dark spaces between stars and nebula. In the novel, this leads it to be interpreted as a metaphor for the known and the unknown: “Cada vez sabemos más, tenemos más información, pero desde el punto de vista de las constelaciones oscuras, desde el fondo perdemos de vista el contorno” (195).³⁰ It is not innocent that the novel turns to a reading of the sky that

²⁸ About the technical environment, Hansen writes: “When (the majority of) systems operate in any concrete context, they always and necessarily do so in conjunction with a technical environment whose agency cannot be reduced to mere perturbations—whose agency not only acts in ways other than to maintain system reproduction but also more generally remains beyond the scope and mastery of the systemic perspective” (115). That is, an environment with a specific form of agency.

²⁹ An entanglement between—among others—code and language: “Boundaries of all kinds have become permeable to the supposed other. Code permeates language and is permeated by it; electronic text permeates print; computational processes permeate biological organisms; intelligent machines permeate flesh. Rather than attempt to police these boundaries, we should strive to understand the materially specific ways in which flows across borders create complex dynamics of intermediation” (Hayles 2008 242).

³⁰ “We know more and more, we have more information, but from the point of view of the dark constellations, from the bottom we lose sight of the outline.”

departs from the Western tradition, as an invitation to open this reading and do so in a different light than the one we are used to, in what could also be read as a post-colonial gesture that signals to pre-Columbian knowledge.

At the same time, the contrast with the model of reading “Estromatoliton” proposes is stark: instead of the inward gaze of mapping the territory, trying to read human DNA, reading the stars turns our eyes upwards to the nonhuman celestial bodies. The spirit behind an idea of a “constellation” is precisely that of turning chaos into cosmos: grouping the observable universe into smaller sets with recognizable patterns and figures. Simultaneously, it provides the celestial bodies with a story; it animates them and brings them into our human history. In this manner, the novel deals with new kinds of constellations and questions of legibility: it is now the ocean of data that needs to be made visible.

It is not innocent, then, that the novel traces a parallel between “Estromatoliton” and reading the sky. Indeed, as Hito Steyerl shows, finding shapes in the sky and pattern recognition by artificial neural networks have something in common, in that they share the ability to filter information from data.³¹ Apophenia is usually understood as a mistaken perception, whereby we see something that is not there because it looks like something else that we already know. However, finding shapes in the sky can be considered—as Steyerl contends—a “creative” aspect of apophenia, since the projection of constellations in the sky during the Neolithic

³¹ These readings played a fundamental role in shaping worldviews: “Back in the Neolithic, humans imagined star constellations and observed patterns of movement by projecting animal shapes into the skies. Let’s say they saw a crab and called this constellation Cancer. Even though there was no actual crab in space, constellations like these served as working hypotheses to eventually come up with fundamentally different worldviews.” (Steyerl 14-15).

eventually led to the production of knowledge about our place in the universe, proving that it can be a gateway to knowledge. In this light, Steyerl speculates that we have now entered a “second Neolithic:” “a phase of the reinvention of the technologies invented during this period” (16), where apophenia acquires a new relevance.³²

Steyerl also compares the 20th century photographers to the 21st century filterers and analysts; if the former registered events after they took place, the latter are concerned with extracting patterns that would allow them to predict events before they take place, reversing the direction of time. This resonates with Estromatoliton; once in action, this device would be able to map out and predict behavior, forms of circulation, and events. The accumulation of data is no longer useful in itself, but only if it paves the road for predictive models. Maybe, then, it is time to go back to the atavistic form of reading proposed by the novel, the creative form of apophenia that would ascribe new meanings to the stars.

To close this section, I should underline that the novel provides a frame of legibility for these forms of infrastructure that, while not invisible, remain unseen. In so doing, it raises awareness about and problematizes new forms of reading and questions the subject and alphabetic modality of reading. However, I have shown that it fails to offer a strictly literary answer and it is at its best when it offers snippets on reading: showing that in a context where reading has been taken out of joint, we, as readers, need to stretch it further out.

³² She explains data mining at large: “Data farming and harvesting, mining, and extraction point back to agricultural and metallurgic procedures. Today, expressions of life as reflected in data trails become a farmable, harvestable, minable resource managed by informational biopolitics. The stones and ores of the Neolithic are replaced by coltane, silicone, and Minecraft Red Stone.” (Steyerl 16).

1.2. Schweblin: A Violence Unseen

The Pampa is the Argentine national landscape by definition. In the imagination of a territory upon which to found a nation, the humid pampas were the space where the nineteenth century dreams of progress were projected. Domingo Sarmiento wrote about it in *Facundo* (1845) without ever having seen it with his own eyes; he only knew about it from secondary sources: novels, travelogues, oral stories, landscape paintings and *La cautiva* (1837) by Esteban Echeverría (Rodríguez 253). Sarmiento's foundational text remains an unavoidable yet purely textual reference when it comes to understanding the pampa, given that it completely lacks a first-hand experience of the territory.³³ Representation upon representation, texts have accumulated like strata on a territory that seemingly cannot be accessed in an unmediated fashion. Like Sarmiento's, the impressions of this space are to some extent of a second degree.³⁴ All writing on the pampa is, in this sense, a rewriting of a previous text.³⁵

³³ In this sense, it is a geographical space as much as it is a textual one: “La Argentina es un texto enmarañado, un enredo de cuerpos y enunciados que hay que desenrañar” (Rodríguez 253) (“Argentina is a tangled text, a tangle of bodies and statements that must be unraveled.”)

³⁴ These strata make it such that it becomes hard to distinguish false memories with actual experiences: “Pero esa ‘conciencia argentina’ poblada de jinetes, esa base de percepciones compartidas ‘fijadas en el lector por anticipado’ gracias al contacto directo con las cosas de campo, ¿es el fundamento de la literatura nacional? ¿O es la literatura la que funda el falso recuerdo de lugares en los que nunca estuvimos y de experiencias que nunca vivimos pero que recordamos con precisión?” (Rodríguez 309) (“But that ‘Argentine conscience’ populated by horsemen, that base of shared perceptions ‘fixed on the reader in advance’ thanks to direct contact with things in the field, is it the foundation of national literature? Or is it literature that founds the false memory of places we have never been and experiences that we never lived but that we remember with precision?”)

³⁵ Rodríguez says that there is no such thing as an original trip to the pampa: “Es que sobre la pampa no hay viaje original (ni viaje al origen): todo viaje al desierto es repetición de un viaje anterior, huella sobre huellas precedentes, traducción de otros textos, verificación de lo ya leído. La llanura es ausencia de origen, repetición periódica de sus términos, paisaje sin originalidad, combinatoria, pero a condición del olvido -no de la memoria- del término anterior” (Rodríguez 89) (“It is that on the pampa there is no original trip (nor trip to the origin): every trip to the desert is a repetition of a previous trip, a trace on previous tracks, translation of other texts, verification of what has already been read. The plain is an absence of origin, a periodic repetition of its terms, a landscape without originality”).

So when Samanta Schweblin, in 2014, writes *Distancia de rescate*, her text inevitably comes into dialogue with this long tradition—the novel generates a series of comparisons and contrasts with canonical texts that share the same narrative space at work. But what happens when previous frames of reference are no longer useful to read a territory, and the territory becomes virtually illegible? The novel enters a territory that is highly charged with meaning and that seems transparent and legible. However, the novel reveals precisely the opposite: how it becomes illegible and new ways of navigating and narrative this space become necessary. As such, the novel questions how to read a territory that has transformed in ways that remain invisible. In this sense, it shows a gap between the ways in which the landscape becomes visible and what that visibility hides. I argue that in search for the narratability of the pampa, the novel examines the ability of the intentional subject to narrate an unknown space and resorts to a second voice to aid it. What emerges then is a form of dialogical narration that moves away from the place of authority and approaches a form of listening. At the same time, it recuperates other forms of reading and recognizes forms of environmental agency.

Making the Environment Legible

State formation in the nineteenth century can be recognized as part of what James Scott (1998) calls forms of readability by which states make their subjects and their environments legible. Scott includes in his analysis the organization of the natural world and includes agriculture as one of the elementary modes of organization. This will be of particular relevance here since the space on which *Distancia de rescate* is

focused is one encoded by industrial agriculture and, in particular, the use of pesticides. We can then reformulate our question: what happens when the very mechanism of legibility of space makes it unreadable—that is, when a certain threshold of legibility is crossed?

Amanda, the protagonist of *Distancia de rescate*, is the mother of Nina, who she has taken outside of the city to spend a few days in the countryside where Carla—a friend of hers—lives. Once they arrive, she soon realizes that the place is far from the idyllic landscape she expected and their vacation will become an ordeal. Maristella Svampa and Enrique Viale (2014) use the term “idle territories” to refer to unproductive lands that are targeted for the expansion of economic exploitation. Technological advancements in the last decades have made an unimaginable expansion of extractivist frontiers possible, pushing the limits of productivity and rendering previously “idle territories” into newly productive ones. This means an increasing removal of unproductive spaces that are continuously incorporated into the agribusiness industry, expanding its frontiers.³⁶ The introduction of large-scale agriculture and the use of pesticides has irreversibly transformed the landscape into a life-threatening danger zone. The toxicity of the environment makes it unrecognizable and the mother seeks assistance to help her navigate the place and measure the dangers of a world that has lost its anchor points.

This broader relation between idleness and productivity finds personal resonance in the novel as Amanda and her daughter travel in search of a harmonious

³⁶ Unlimited growth is one of the axioms of capitalism, as explained by Andreas Malm (paraphrasing Karl Marx): “But capital recognizes *no* boundary in nature. The moment it becomes comfortable with ‘a boundary, it would itself have declined from exchange value to use value, from the general form of wealth to a specific, substantial mode of the same’” (287-288).

place: they leave what they associate with the productive space (the city) to come into contact with a space (the countryside) and time (vacations) of idleness.³⁷ From the very early moments of their arrival, several indicators mark this place as an environment of production: Amanda's friend breeds horses and the landscape is full of crops, vast extensions of soy bean field fill both sides of the road. These are the first signs indicating that Amanda and Nina will not find there what they were looking for; the industrialized pampa is not a place for rest but one of productivity, populated not by wild animals but by GMOs.

In its structure, the novel is presented as a dialogue between Amanda and David, Carla's son. In this dialogue she tells him about a sickness she and her daughter are suffering from, which has also afflicted the boy. Despite the lack of details, the root of the illness is presumably linked to the water, contaminated with chemicals used in the production of soybeans. What was supposed to be a vacation soon becomes a nightmare for Amanda who desperately fights for her child's survival and her own. The geographical imprecisions contribute to a general sense of disorientation that is pervasive throughout the novel and adds to the many uncertainties that define Amanda's experience. All we know is that the place is a few hours of driving from an unnamed capital city.

The space intended to welcome mother and daughter during their stay becomes a hostile space where life is in danger. The agent causing the sickness is invisible and

³⁷ In this regard, Tania Pérez Cano turns to the classical figure of the *beatus ille* part of the pastoral tradition: "Son estos nuevos problemas, estos nuevos motivos, los que revelan la fractura del discurso pastoral y del *beatus ille*, que imaginaba el espacio natural como refugio de los conflictos humanos" (12).

hides among the quotidian: the bucolic landscape conceals a polluted one. In this sense, the novel reveals the dark side of the contemporary landscape, turning it into the inhospitable desert described in *Facundo*, only that now the problem is not one of a desert inhabited by “barbarians” (as Sarmiento derogatorily referred to the indigenous peoples), but it is an anthropogenic process of desertification that renders the environment unlivable. The concept of “desert” is made complex; it becomes an environment hostile to any form of life. If Sarmiento’s desert needed to be domesticated, partitioned, populated, and made productive, the desert of the present is man-made and has crossed the threshold of inhabitability. The strive to make it productive has made it inimical to life.

This process can be linked to what Rob Nixon calls “displacement without moving:” “instead of referring solely to the movement of people from their places of belonging, [it] refers rather to the loss of the land and resources beneath them, a loss that leaves communities stranded in a place stripped of the very characteristics that made it inhabitable” (19). Populations are not displaced in the classical sense of the word—instead their environment is surreptitiously yet drastically transformed; they do not change places but the place itself changes. When it is no longer what it was, the interaction between the place and its inhabitants necessarily changes as well.

Unusable Binaries

Schweblin’s novel shows the other face of processes of modernization: in its extractivist drive to productivity, the environment is rendered into what Svampa and Viale call “socially empty territories” (32), where the bodies inhabiting those

environments become expendable.³⁸ In *Un desierto para la nación* (2010), Fermín Rodríguez puts forward the hypothesis that the desert is such a productive motif because it stems from an assumption of emptiness upon which innumerable imaginations and national projects have been impressed. In the case of *Distancia de rescate*, this assumption of emptiness makes way for a violence exerted on an environment and its inhabitants. In addition to this, the productive dimension of the territory puts it in conflict with a long tradition of landscape legibility represented by the *locus amoenus*. In literature written in Spanish, this tradition can be traced back to the sixteenth century pastoral, proposed as an idealization of the rural over the urban landscape. It is no accident that the birth of this genre and, with it, an idealization of the landscape, emerges in the early days of modernity, when a society that had been predominantly rural for centuries becomes increasingly urban—a motif that emerges then and makes the pastoral landscape legible.

Following Ernst Curtius's definition, *locus amoenus* can be defined as a pleasant, calm, welcoming and agreeable place. He begins his study of the concept mentioning Virgil. In the third line of his inquiry, he writes: “‘Lovely places’ are such as only give pleasure, that is, are not cultivated for useful purposes” (192). The *locus amoenus* is a place outside of the economic sphere; it is the place of the useless. According to Curtius, only cultivated land is seen as useful and, by law, shepherds

³⁸ They describe these spaces as follows: “Sea que a estos espacios se los conciba como ‘territorios socialmente vacíos’, ‘ociosos’, ‘desiertos’ o ‘vacíos’, el resultado es similar: la desvalorización de otras formas productivas, la devaluación de las economías regionales, la obturación de otros lenguajes de valoración del territorio vinculados a los sectores subalternos y crecientemente incompatibles con los modelos dominantes” (Svampa and Viale 32) (“Whether these spaces are conceived as ‘socially empty territories,’ ‘idle,’ ‘deserts’ or ‘empty,’ the result is similar: the devaluation of other forms of production, the devaluation of regional economies, the blocking of other territorial valuation languages linked to subordinate sectors and increasingly incompatible with dominant models”).

were banned from using cultivated lands for shepherding. Indeed, in the sixteenth century Castilian economy, land was split in two: the productive land used for agriculture aimed at feeding humans and the unproductive land used for feeding livestock. This unproductive land, however, preserves its aesthetic value of producing pleasure that the cultivated land seems to have lost, in consonance with the idea that only that which is useless can be beautiful. In sum, the *locus amoenus* is a place where the inner life of the characters comes into harmony with the outside environment; it supposes a continuity between inside and outside. It is a place where rest is possible because of its exclusion from productivity and, as such, far from danger and the threat of violence. Its exceptionality makes the rule visible: spaces of productivity, both urban and rural, leave no space for the pleasant and calm. They are spaces where the subject is in tension and there is no room for an aesthetic appreciation.

In Romanticism, the sublime potentiality of nature is idealized and finds its scientific complement in the desire for charting natural spaces and the species that inhabit them: "Podría decirse que para el naturalista romántico, la contemplación del paisaje es una forma de comunicación con la naturaleza en la que ya está flotando, como deseo o fantasía, la realización de la futura obra" (Rodríguez 46). In Argentine literature, this is translated in the idealization of the "natural" inhabitant of the pampa: the gaucho, protagonist of the gaucho literature. A more recent precedent that is heir of pastoral literature is what is known as "novela de la tierra" that, in Argentina, had *Don Segundo Sombra* (1926) by Ricardo Güiraldes as its best representation. Here, the central aspect is the nostalgia for the lost pampa and, more specifically, for the inhabitant that only she could produce: the gaucho. The novel follows Sarmiento's

urban/rural binary but instead of demonizing the rural inhabitant it romanticizes him as part of a lost past in the face of recent migration that triggers the crisis of national identity that Güiraldes projects onto the figure of the gaucho.³⁹

In *Distancia de rescate*, there is a loss of anchor points in relation to the landscape. The landscape has suffered transformations that remain invisible, calling for a new form of writing about the landscape. The referent seems the same, but we need a new language to interpret it because there is no longer a correspondence between sign and referent. In one of her essays from *Aquí América Latina* (2010), Josefina Ludmer suggests that “el mundo bipolar ha terminado y que estamos en otra era” (127),⁴⁰ where old binary categories for understanding spaces that populated our meta-languages collapse: realism/avant-garde, national/cosmopolitan, pure literature/social literature, history/fiction. She proposes thinking about spaces that do not fit binary molds: “Que absorben, contaminan y desdiferencian lo separado y opuesto y trazan otras fronteras. Literatura urbana y rural, por ejemplo, ya no se

³⁹ In his classical essay from 1933, *Radiografía de la pampa*, Ezequiel Martínez Estrada goes back to this question. Even if for the author the gaucho had disappeared by 1880, the opposition between the city and the countryside was still in effect: “Y sin duda la libertad verdadera, si ha de venir, llegará desde el fondo de los campos, bárbara y ciega, como la vez anterior, para barrer con la esclavitud, la servidumbre intelectual y la mentira opulenta de las ciudades vendidas” (67) (“And without a doubt true freedom, if it is to come, will come from the depths of the fields, barbaric and blind, as before, to sweep away slavery, intellectual servitude and the opulent lie of the sold cities”). From this struggle between city and countryside the city has emerged as apparently victorious (much to Martínez Estrada’s lament), although, according to his argument, the pampa ultimately always triumphs (106). However, towards the end of his essay, Martínez Estrada shows how they are not opposed but mutually imbricated: “Lo que Sarmiento no vio es que civilización y barbarie eran una misma cosa, como fuerzas centrífugas y centrípetas de un sistema en equilibrio. No vio que la ciudad era como el campo y que dentro de los cuerpos nuevos reencarnaban las almas de los muertos. Esa barbarie vencida, todos aquellos vicios y fallas de estructuración y de contenido habían tomado el aspecto de la verdad, de la prosperidad, de los adelantos mecánicos y culturales. Los baluartes de la civilización habían sido invadidos” (252) (“What Sarmiento did not see is that civilization and barbarism were the same thing, as centrifugal and centripetal forces of a system in equilibrium. He did not see that the city was like the field and that within the new bodies the souls of the dead reincarnated. That barbarism defeated, all those vices and flaws of structure and content had taken on the aspect of truth, of prosperity, of mechanical and cultural advances. The strongholds of civilization had been invaded.”)

⁴⁰ “The bipolar world is over and we are in another era.”

oponen sino que mantienen fusiones y combinaciones múltiples; la ciudad latinoamericana absorbe el campo y se traza de nuevo” (Ibid.).⁴¹

These spaces redefine the lettered city that Angel Rama had put at the center of the modernizing process of Latin American letters.⁴² The city embodies the modern dream and, as Rama says, the dream became possible for Spain with the Conquest of the Americas, which provided not only the economic boost for its development, but also an ample “virgin” space upon which to project its civilizing dreams. As an alternative to the city, Ludmer proposes what she calls the “urban island:” “Las ciudades brutalmente divididas del presente tienen en su interior áreas, edificios, habitaciones y otros espacios que funcionan como islas, con límites precisos” (130).⁴³ This signals a need to rethink the “other” of the lettered city that loses its otherness in the contamination that characterizes our reality. In Schweblin’s novel, the rural space is contaminated with urbanity. If we can no longer speak of “rural literature,” it is because that literary space has been transformed to such a degree that is no longer recognizable. In the present, says Ludmer: “la ciudad se barbariza, se rodea de villas miseria y se divide violentamente para representar lo social y el modo en que lo global

⁴¹ “That absorb, pollute and de-differentiate the separate and opposite and draw other frontiers. Urban and rural literature, for example, are no longer opposed but maintain multiple fusions and combinations; the Latin American city absorbs the countryside and traces itself again.” Examples of this are the novels of Juan Incardona where the protagonist is a space, Villa Celina, which is located on the outskirts of Buenos Aires and where (in the latest iteration of his series, *Las estrellas federales*) fantastic characters such as a man who regenerates, a “Lizard Woman,” a “Giant Dwarf” and weather phenomena such as a sulfuric acid rain appear.

⁴² I quote the opening paragraph of his seminal work: “From the remodeling of Tenochtitlán after its destruction by Hernán Cortés in 1521, to the 1960 inauguration of that most fabulous dream city of the Americas, Lúcio Costa and Oscar Niemeyer’s Brasília, Latin American cities have been creations of the human mind. The ideal of the city as the embodiment of social order corresponded to a movement in the development of Western civilization as a whole, but only the lands of the new continent afforded a propitious place for the dream of the ‘ordered city’” (Rama 1).

⁴³ “The brutally divided cities of the present have within them areas, buildings, rooms and other spaces that function as islands, with precise boundaries.”

encarna nacionalmente” (128).⁴⁴ It is a post-binary world of entanglements where distinctions are more difficult (or needless) to recognize.

In fact, the nature/culture divide becomes questionable once we acknowledge the human as a geological force. This “collision of Humans with the Earth” (Danowski and Viveiros de Castro) means the crumbling of the modern episteme that separated the cosmological and anthropological orders. We can see this as an inversion between the “ambiented” and the ambient in the “collapse of an ever more ambiguous environment, of which we can no longer say where it is in relation to us, and us to it” (Danowski and Viveiros de Castro 14). The very idea of the “landscape” needs to be reconsidered: “The landscape form emerged in the fifteenth century—in simultaneous fashion with the beginnings of European colonial expansion—as an imperial apparatus and as the very condition of knowing, from the detached vantage point of an unseen and disembodied beholder, an object-world to be surveyed, classified, and evaluated” (Andermann 11). The environment in Schweblin’s novel could not be any further from this. There is no vantage point and the beholder is completely entangled to the extent that distance is no longer an option. Furthermore, the idea of vision as a form of relation gives way to other kinds of interaction that are more bodily than they are contemplative; the subject cannot detach himself from the environment, meaning that both subject and object lose their properties. This is what Andermann calls the “postnatural” condition.

Me sorprenden las ganas que tengo de tomarme unos mates, las pocas ganas que tengo de subirme al coche y manejar cuatro horas y media

⁴⁴ “The city is barbarized, surrounded by slums and violently divided to represent the social and the way in which the global incarnates nationally.”

hasta capital. Volver al ruido, a la mugre, al congestionamiento de casi todas las cosas.

¿De verdad este sitio te parece un lugar mejor?

Un grupo de árboles da algo de sombra y nos sentamos en los troncos, cerca del aljibe. Los campos de soja se abren a los lados. Todo es muy verde, un verde perfumado, y Nina me pregunta si no podemos quedarnos un poco más. Solo un poco (Schweblin 68).⁴⁵

The scene seemingly has all the elements of a *locus amoenus*: the shadow of the tree, the well, the shelter of amiable nature. However, there is something excessive that disrupts this; the artificiality of the green and the soybean fields give it an air of productivity rather than idleness. This may have been the pleasant place they were looking for if not for the excessive green—an excess that is symptomatic of the rift between their expectations and what they effectively encounter. They expected to find the *locus amoenus*; yet, what they find not defies all preceding representations of the pampa. Amanda's association of the city with dirt, and noise contrast with the way she sees this environment that is new to her, but David quickly questions her idealization of the place: does she really think this is a better place? In his eyes, this has ceased to be a desirable place and he is trying to show her what she is still unable to see.

Navigating Invisible Threats

A possibility for reading the kind of violence present in the novel is through what Rob Nixon calls “slow violence,” which he defines as: “a violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all” (2). He

⁴⁵ I keep here and in every subsequent quote of the novel the italics that distinguish David's interjections from Amanda's discourse: “I am surprised by the desire I have to have some mates, the little desire I have to get in the car and drive four and a half hours to the capital. Back to the noise, to the dirt, to the congestion of almost everything. *Does this place really seem like a better place to you?* A group of trees gives some shade and we sit on the logs near the cistern. Soybean fields open to the sides. Everything is very green, a scented green, and Nina asks me if we can't stay a little longer. Just a little bit.”

identifies new forms of violence that appear in the second half of the twentieth century, for which we lack a frame of reference to understand them. We are used to thinking about violence in terms of abrupt events that take place in a rather spectacular fashion, making them highly visible. By contrast, the kind of violence Nixon has in mind acts in a silent, hidden manner. This kind of slow violence is difficult to represent, because it unfolds outside of public imagination. Its victims, likewise, suffer a similar invisibility: we can all picture victims of bombing, but not those of the slow and silent poisoning whose deaths often go unnoticed.

Fiction suffers from this issue of representation, and this may be why *Distancia de rescate* remains one of the few works to tackle slow violence. For example, periodically there are floods in the pampa that receive a lot of attention from the press because they are highly visible phenomena with immediate consequences. But the slow but steady processes of deforestation recede into the background, despite often being the very cause of the floods. In this way, Schweblin's novel takes up the challenge of narrating forms of violence that resist representation since their temporality eludes the frames of the narratable.⁴⁶

The whole novel is structured as a dialogue between Amanda and David as she faces death. She tells him about the events of the past few days, and he evaluates her narration with the goal of finding the exact moment when the sickness appears. This is present from the first lines of the novel: “*Son como gusanos. ¿Qué tipo de gusanos?*

⁴⁶ Timothy Morton addresses this slowness in relation to global warming: “It is helpful to think of global warming as something like an ultra slow-motion nuclear bomb. The incremental effects are almost invisible, until an island disappears underwater. Poor people—who include most of us on Earth at this point—perceive the ecological emergency not as degrading an aesthetic picture such as world but as an accumulation of violence that nibbles at them directly.” (125).

Como gusanos, en todas partes” (11).⁴⁷ The question represents one among many uncertainties that drive the novel, as the protagonist struggle in their seemingly impossible quest for answers. David, who has suffered from the disease, serves as the knowing subject—a compass to navigate the unknown space mediated by its toxicity. In fact, his first-hand experience becomes the parameter for knowledge: the knowing subject is no longer someone who observes, but who has the bodily experience and tells the story of his own suffering. In this sense, the novel clearly steps away from scientific knowledge on the environment and prioritizes, instead, personal testimony. Because the outsider is unable to read the environment, she consults the local, who knows it from his own experience and has learned to navigate its invisible threats. Thus, the conversations between Amanda and David are centered around locating the key moment: David insists, “*hay que encontrar el punto exacto en que nacen los gusanos*” (*ibid.*).⁴⁸

At the same time, Carla makes a shocking confession about David: “Era mío. Ahora ya no” (15).⁴⁹ The story that opens with these lines trails how David stopped being her son, a story that begins with her husband’s horse breeding business. The promise for the business’s prosperity lies in a stallion from a lineage of successful racehorses that they borrowed. When one day the stallion unexpectedly falls ill, everything starts to fall apart. One quiet afternoon, when nothing seems to be out of the ordinary, Carla loses sight of the stallion while attending some chores around the house and when she goes down to the stream behind the house to get it back, she

⁴⁷ “They are like worms. What kind of worms? Like worms, everywhere.”

⁴⁸ “You have to find the exact point where the worms are born.”

⁴⁹ “He was mine. But no longer.”

forgets about David for a moment, who gets in the water. Something as innocuous as the water from a stream proves to be deadly when the horse quickly exhibits symptoms of being seriously sick. Carla fears the worst: “A veces no hay tiempo para confirmar el desastre. Lo que sea que hubiera tomado el caballo lo había tomado también mi David, y si el caballo se estaba muriendo no había chances para él” (22).⁵⁰ She has no time to spare and knows that resorting to the local clinic is of no help given their slow response time. She is desperate to save her child at any cost: “Necesitaba a alguien que le salvara la vida a mi hijo. Al costo que fuera” (*ibid.*).⁵¹ But the cost turns out to be too high, as even though David’s life is saved, he is no longer himself; he becomes a “monster” (in his mother’s words) and Carla feels she has lost him irretrievably.

Carla goes to the “casa verde,” which is where the locals turn to in critical times, given that they can only count on traditional medicine in moments when the situation is of no urgency: “esos médicos que llaman desde la salita llegan varias horas después, y no saben ni pueden hacer nada de nada” (23-24).⁵² Their response time is too slow and their knowledge too limited to deal with these kinds of diseases for which Carla would rather consult “la mujer de la casa verde,” whom she describes as follows: “no es una adivina, ella siempre lo aclara, pero puede ver la energía de la gente, puede leerla” (24).⁵³ This is the only point of the novel where reading is referenced, and it is a reading that has a body for object, not a text, and where what is

⁵⁰ “Sometimes there is no time to confirm the disaster. Whatever the horse had had, my David had it too, and if the horse was dying there was no chance for him.”

⁵¹ “I needed someone to save my son’s life. At whatever cost.”

⁵² “Those doctors they arrive several hours later, and they do not know or can do anything about anything.”

⁵³ “She is not a clairvoyant, she always clarifies it, but she can see people’s energy, she can read it.”

read and mobilized is the body's "energy." This woman has the capacity of reading and mobilizing energy not by putting it to work, but instead by diverting it from productivity. In so doing, the novel unhinges reading and offers an alternative form of reading that is not alphabetic. In a context where the environment has become illegible as it becomes repurposed and exploited for work, *Distancia de rescate* proposes a form of reading that takes energy in a different direction—away from that of productivity. This reading from an alternative energetic paradigm reveals a different form of legibility to which conventional and/or scientific paradigms are blind. The novel's alternative involves the environment and its bodies as cryptic signifiers that have lost their legibility when read in accordance with old standards.

Schweblin's novel, thus, attempts to invent new ways of reading—through energy. Energy can be understood as something that precedes the subject and object divide.⁵⁴ Michael Marder insists that we need to find other ways of conceiving energy: "With the environmental crisis upon us, it is necessary to dream up another energy, another enworkment where humility and taking charge, accepting the given and elaborating it, belong together (...) What we can do (and this modal verb *can*, promising potency, as much as the active *do*, should not be taken for granted) is let another energy work and dream, as it gushes forth from the fault lines of the productivist worldview" (29). This is the direction *Distancia de rescate* seems to be stepping into when it introduces the question of energy.

The woman from the green house tells Carla that David is suffering from poisoning and that the only way he will survive is by having his spirit migrate to

⁵⁴ "Preceding the wedge modernity drives between activity and passivity, or subjects and objects, energy breaks out and through every frame we wish to impose upon it." (Marder).

another body. When she hears her friend's story, Amanda tells her she does not understand, to which Carla replies: "Sí entendés, Amanda, entendés perfectamente" (28).⁵⁵ Carla's response to Amanda's disbelief is an almost primal pragmatism: she did what she had to do to save her child and that is all the truth she needs. This is reinforced by the fact that David undergoes a monstrous transformation: "Así que éste es mi nuevo David. Este monstruo" (33),⁵⁶ Carla observes. The only possibility for his survival is a radical mutation by which he ceases to be who he was. The poisoning marks a violent event with irreversible consequences; even when it does not kill its victim, it leaves an indelible mark. This kind of mutation afflicts the community beyond David. At the store there is a girl, Abigail, who has a congenital malformation: one of her legs is shorter than the other and she has a disproportionately large forehead that takes over half of her head. A group of mutant children, like Abigail, roam around the town together and go to the local clinic for treatment. Only a few children are, in fact, unaffected by the toxic environment: "¿Hay chicos sanos también, en el pueblo? Hay algunos, sí. ¿Van al colegio? Sí. Pero acá son pocos los chicos que nacen bien" (109).⁵⁷

However, there is a difference between David and those who are born with congenital malformations, since the former has suffered from a mutation that has turned him into what his mother calls a "monstruo." In his mother's eyes, after his transformation there is something about her child that makes him other-than-human, the transmigration distances him from his mother who finds his presence unsettling,

⁵⁵ "Yes, you understand, Amanda, you understand perfectly."

⁵⁶ "So this is my new David. This monster."

⁵⁷ "Are there healthy kids too, in town? There are some, yes. Do they go to school? Yes. But here there are only a few kids who are born well."

while bringing him closer to Amanda, who is experiencing similar symptoms to his and needs him to help her navigate them.

The very title of the novel connotes the centrality of the mother/child relationship. The “rescue distance,” Amanda explains, is the calculation of the distance separating her from her daughter and the time it would take her to save her from an imminent danger:

Varía con las circunstancias. Por ejemplo, las primeras horas que pasamos en la casa quería tener a Nina siempre cerca. Necesitaba saber cuántas salidas había, detectar las zonas del piso más astilladas, confirmar si el crujido de la escalera significaba algún peligro. Le señalé estos puntos a Nina, que no es miedosa pero sí obediente, y al segundo día el hilo invisible que nos une se estiraba otra vez, presente pero permisivo, dándonos de a ratos cierta independencia (36).⁵⁸

The idea of a rescue distance presupposes that danger is visible, recognizable and measurable, but it does not take into consideration invisible threats that a mother cannot foresee and to which David fell victim. The usual parameters through which a mother evaluates her child’s wellbeing are no longer operative in the world of the novel; they belong to a time when danger was recognizable and, therefore, avoidable. Reading the world of *Distancia de rescate* requires new methods and tools that will allow us to inhabit it and navigate its dangers. When David asks Amanda as she begins measuring the rescue distance, she replies: “Es algo heredado de mi madre. ‘Te quiero cerca’, me decía. ‘Mantengamos la distancia de rescate’” (44).⁵⁹ There is a line of succession that is interrupted between Amanda and Nina; the parameters the former

⁵⁸ “It varies with the circumstances. For example, the first few hours we spent in the house, I wanted to have Nina always close by. He needed to know how many exits there were, to detect the most chipped areas of the floor, to confirm if the creaking of the stairs meant any danger. I pointed out these points to Nina, who is not fearful but obedient, and on the second day the invisible thread that unites us was stretched again, present but permissive, giving us at times a certain independence.”

⁵⁹ “It is something inherited from my mother. ‘I want you close,’ she would tell me. ‘Let’s keep the rescue distance.’”

has inherited from her mother are no longer useful to measure the world that she and her daughter inhabit. The idea of a rescue distance is then problematized: “‘Tarde o temprano algo malo va a suceder’, decía mi madre, ‘y cuando pase quiero tenerte cerca’” (45).⁶⁰ The mother/daughter relationship is, then, not based solely on the protection from an imminent danger, but it is open to the contingency that something bad can happen or, worse, that something bad will inevitably happen.

If for over three centuries literature was occupied with charting the world, that is, measuring and gathering a sense of orientation in all its “blank spaces,” now it finds itself before a loss of measure, where the measuring units are no longer useful to gauge the world, which demands that we rethink their relation. Even late in the nineteenth century there were still large uncharted parts of the world and the motivation for travel was to “fill those blanks.” Of course, those territories were only blank when seen through imperial eyes (to borrow Mary-Louise Pratt’s title). Once these places were “discovered” they would be “exploited for their commercial potential” (Youngs 2).⁶¹

When the “rescue distance” can no longer be measured, the demand for new ways of relating with our environment arises. It presupposes a stable background against which we can gauge our own experience and, in absence of this, our place in the world becomes unstable. The real “disaster,” then, is the loss of the world as a background—the frightening coming forward of the background. Thus, the fear the

⁶⁰ “‘Sooner or later something bad is going to happen,’ my mother used to say, ‘and when it happens I want to have you close.’”

⁶¹ As we saw in the first half of this chapter, this is particularly relevant for Oloixarac’s novel, which traces the passage from nineteenth century travel writing to a near future where there are no uncharted territories left.

mother feels is not only that of the possibility of death (both of her child and hers) but of the loss of a world.⁶² The novel faces an immeasurable world and deals with it as an aesthetic challenge. At this point, it comes into dialogue with the naturalist approach that had as one of its main premises the scientific measuring of the world “that begins to exist only when it is measured, located and named within a map” (Rodríguez 42, my translation).

Dialogical Narration

The conversation between Amanda and David that crosses the novel is a long account of what happened to Amanda before getting to the place where she is at the time of her narration: a hospital bed. David guides her through her story, selecting the important parts and dismissing the lesser ones; they are in search of a precise moment: “*Buscamos gusanos, algo muy parecido a gusanos, y el punto exacto en el que tocan tu cuerpo por primera vez*” (43).⁶³ Eventually, they find moment they were looking for—the moment of Amanda and Nina’s contagion or contamination.

Amanda had paid Carla a visit at her workplace to say goodbye at what was meant to be the end of her trip. Carla works at a large estate that produces grain and, during the short minutes they spend there, a few men start offloading barrels from a truck. As Amanda and Nina sit observing the men, in an unprecise moment Nina gets in contact with the poisoning agent: “*¿Qué pasa con la distancia de rescate?* Todo

⁶² Danowski and Viveiros de Castro aptly titled their book *Há mundo por vir? Ensaio sobre os medos e os fins*, which literally translates as “Is There a World to Come? An Essay on Fears and Ends” (the original is also a play on words with the words “medos” [fears] and “médios” [means]).

⁶³ “We are looking for worms, something very similar to worms, and the exact point where they touch your body for the first time.”

está bien. *No*. Tiene el ceño fruncido. —¿Estás bien, Nina? —le pregunto. Se huele las manos. —Es muy feo—dice” (65).⁶⁴ A moment of passive observation quickly becomes one of desperation as Amanda realizes something has gone horribly wrong. But by the time it is verified, it is already too late; and it is impossible for the protagonists to single out the exact moment it takes place: when we know what is happening it is already late.

The impossibility of pinpoint the exact moment of contagion is analogous to Vivian Sobchack’s assessment of the representation of death on screen: “The representation of the event of death is an indexical sign of that which is always in excess of representation and beyond the limits of coding and culture: Death confounds all codes. That is, we do not ever “see” death on the screen nor understand its visible stasis or contours. Instead, we see the activity and the remains of the event of *dying*” (233). In the case of *Distancia de rescate*, the event cannot be anticipated nor witnessed. Although she does not know what, Amanda knows something bad is bound to happen, so she tries to prepare and anticipate it but she fails. At the same time, though it unfolds right before her eyes, she is unable to see it. All she can do is scour her memory to try to retrieve the moment with David’s help, but here she fails, too. David stresses: “*Lo importante ya pasó. Lo que sigue son solo consecuencias. ¿Por qué sigue entonces el relato? Porque todavía no estás dándote cuenta. Todavía tenés que entender*” (53).⁶⁵

⁶⁴ “What about the rescue distance? Everything is fine. No. He’s frowning. ‘Are you okay, Nina?’ I ask her. She smells her hands. ‘It’s very bad,’ she says.”

⁶⁵ “The important thing has already happened. What follows are only consequences. Why then does the story continue? Because you’re not realizing it yet. You still have to understand.”

This condenses some of the most significant aspects in the novel in relation to temporality and the importance of storytelling. The novel's temporality is one of lateness, in a present of anticipation, modeling, and futurity;⁶⁶ We are constantly late to the scene: the more we try to predict it, the more unpredictable it becomes. Storytelling, then, has the power to make us understand, to help us go back on our steps and make us realize how we got where we are. Amanda asks: Why does the story go on? The story goes on because it is a way of putting into language an experience that seems beyond it—making it a way of understanding it.

The search is for an accident that is inevitably lost: a moment of contagion that is unnarratable by nature because it cannot even be reconstructed. The novel questions the possibility of representation itself and storytelling is at all times failure and resistance. *Distancia de rescate* also poses the question of the imperceptible times of storytelling and the search for a moment of origin: slotting time into smaller and smaller intervals while the event remains elusive. The temporality of slow violence and its imperceptibility are at odds with the lack of time and the sense of urgency of storytelling that is prevalent in the novel. The urgency is such that there is no time for lingering on irrelevant details; David points out again and again this haste by saying they need to find “lo importante.” In this sense, the novel engenders a poetics of urgency, where the act of storytelling once again becomes relevant. David’s role as a second narrator becomes unique and it highlights Amanda’s lack of control even of

⁶⁶ This is what Dipesh Chakrabarty calls “the various regimes of probability that govern our everyday lives in modern economies” (3), where he specifically has in mind the working of stock markets that is at the heart of our economies. These kinds of regimes have both been made possible and extended with the development and expansion of computing, which is itself problematic: “Computation projects a future that is like the past – which makes it, in turn, incapable of dealing with the reality of the present, which is never stable.” (Bridle 44).

her own story, where she is unable to put together a cohesive narrative and understand what its key parts are; what is eventful and what is uneventful.

Paul Virilio theorizes that every tool carries in it the possibility of an accident: “To acquire a tool, a new piece of industrial equipment or whatever, is also to acquire a danger, a particular risk; it is to open one's door, to expose one's intimacy to hazards, slight or major” (81). This possibility of the accident is what Amanda tries to anticipate and it determines her relation to her environment; she searches it for danger: “yo no puedo dormir, no la primera noche. Antes tengo que saber qué rodea la casa. (...) Necesito ir por delante de cualquier cosa que pudiera ocurrir, pero todo está muy oscuro y no termino de acostumbrarme. Creo que tenía una idea muy distinta de la noche” (88- 89).⁶⁷ Amanda tries to identify the dangers lurking in the dark night, but this darkness is different from what she is used to: she is immersed in a darkness that will not lift with the early morning sunlight; it is a night that has lost the very possibility of clarity and where the only possible clarity is that of storytelling. She tries to move ahead of danger but, like a detective pursuing a criminal who is smarter than him, danger is always a step ahead of her and all she can do is go back on her tracks to find the moment she lost it.

In essence, the problem the novel lays out is analogous to that described by Dipesh Chakrabarty as the rift between “the various regimes of probability that govern our everyday lives in modern economies” and “the radical uncertainty of the climate” (3), whereby the climate is becoming increasingly unpredictable and the analytics of

⁶⁷ “I can't sleep, not the first night. First, I have to know what surrounds the house. (...) I need to be ahead of anything that might happen, but everything is very dark, and I can't quite get used to it. I think I had a very different idea of the night.”

capital “are insufficient instruments in helping us come to grips with anthropogenic climate change” (4). According to Chakrabarty, this results in climate scientists resorting to vitalist metaphors not because they are less “scientific” than economists but to highlight that the Earth’s climate has “many uncertainties [that] cannot ever be completely tamed by existing human knowledge and that its exact tipping points are inherently unknowable” (6). In both cases, then, the world is becoming more opaque in terms of the models we have used to explain it: Amanda uses an existing model of the world’s dangers that proves to be obsolete.

The problem is the imperceptibility of the accident that renders Amanda unable to account for it as a witness: “*Se trata de algo en el cuerpo. Pero es casi imperceptible, hay que estar atento*” (50).⁶⁸ More than an accident, it is a disaster. Kate Rigby retrieves the Latin root of the word and defines disaster as “the state of having been disowned by the stars that ensure a safe passage through life” (20). This dis-aster leaves us in a state of orphanage, which gives the mother/daughter new relevance, having lost an anchor as solid as a star in the sky that help us find our bearings. However, the challenge of this disaster is precisely its “uneventfulness”—in the sense that it does not present itself loudly as an event, but as a faint happening that is hardly an event at all. It takes place before the subject is able to gain awareness of it, producing a lateness that hinders its experience.⁶⁹ To this, Timothy Morton adds that disasters take place against a stable background, and what occurs here is in fact an intrusion of the background into the foreground whereby the distinction between the

⁶⁸ “It is something in the body. But it is almost imperceptible, you have to be attentive.”

⁶⁹ Rob Nixon also notes this uneventfulness: “ours is also an era of enclaved time wherein for many speed has become a self-justifying, propulsive ethic that renders “uneventful” violence (to those who live remote from its attritional lethality) a weak claimant on our time.” (8).

two crumbles.⁷⁰ As anticipated, the real disaster is not a “sudden turn or overturning”⁷¹ of conditions within our world, but the end of the world altogether.

In this obsession with identifying the exact moment in which something takes place, extant biases about the importance of “having an event” emerge; a narrative cannot be conceived without significant events. In its futile search for the event, the novel actually points to the necessity of going beyond an outmoded idea of event that is no longer accurate nor useful for the kind of storytelling Schweblin’s novel is promoting. We cannot point to the exact moment when the disaster took place, but we live in a post-disaster world where our energy would be better spent trying to find new bearings rather than using our old parameters. This is true not only in terms of how we relate to the world but, more accurately, to how we tell stories about it. What seems at stake here is that classical categories of storytelling are under scrutiny, namely setting and event. In addition to this, the notion of a narrator as a transcendental subject that is in control of its narrative is also disputed and what emerges is a form of aided narration where a second voice points the narrative into a dialogue.

A Violence We Cannot See

Almost a century ago, in one of his most oft-cited texts, Walter Benjamin wrote the following in reference to WWI: “Was it not noticeable end of the war that men returned from the battlefield grown silent--not richer, but poorer in communicable experience? What ten years later was poured out in the flood of war books was

⁷⁰ This will take Morton to affirm the following: “The worry is not whether the world will end, as in the old model of the dis-astron, but whether the end of the world is already happening, or whether perhaps it might already have taken place.” (16).

⁷¹ This is Aristotle’s definition of disaster as recounted by Rigby (17).

anything but experience that goes from mouth to mouth.” (84). There are many possible interpretations to this text and this passage in particular, but I am interested here in how Benjamin underlines a poverty of experience to refer to the violence suffered by the survivors of the Great War. Technological advancements happen so suddenly that they produce a disassembly of experience: “A generation that had gone to school on a horse-drawn streetcar now stood under the open sky in a countryside in which nothing remained unchanged but the clouds” (*ibid.*). Today, the disassembly is such that we are not even able to experience violence as violence: it happens before our eyes but we are unable to see it. If the violence Benjamin writes about is impossible to discern because of how overwhelming it is, the indiscernibility of slow violence is owed to its intangibility. In Amanda’s words, the poison is bitter, yet subtle: “amargo, amargo, sí. Pero es tan sutil, Dios mío, es tan sutil” (67).⁷² This imperceptibility is heightened by the absence of a specific agent; the water is presumed contaminated only because the subjects fall mysteriously ill upon exposure. This violence comes unannounced—one cannot see it coming but only recognize it after the fact, when it is too late.⁷³

This encounter with an unrecognizable violence sheds new light on the importance of fiction: “In a world permeated by insidious, yet unseen or imperceptible violence, imaginative writing can help make the unapparent appear, making it accessible and tangible by humanizing drawn-out threats inaccessible to the immediate senses” (Nixon 15). Fiction seems to acquire a new purpose in the present: making

⁷² “Bitter, yes, bitter. But it’s so subtle, my god, it’s so subtle.”

⁷³ On this, Nixon writes: “our theories of violence today must be informed by a science unavailable to Fanon, a science that addresses environmentally embedded violence that is often difficult to source, oppose, and once set in motion, to reverse” (7).

visible processes of violence that are imperceptible to our senses, naming new dangers, and making the opacity of the environment legible. Given a story, the environment starts revealing aspects to which we were previously oblivious. In a way, *Distancia de rescate* is in dialogue with a tradition that in Latin American literature we can group under the name of “literatura de denuncia,” which has adopted different forms depending on the kind of oppression being denounced. This kind of literature emphasizes the revelation and, thus, the denouncement of an injustice. But in Schweblin’s novel, one of the key difficulties is precisely the absence of an adequate language to name and shame. The danger present in *Distancia de rescate* is one that lacks a name, necessitating new forms of storytelling as well as a new language that is in correspondence with the new order of things.

The absence of an agent that provides a “cause” poses another constraint on apprehending the violence. In search for ways of narrating its experience, the novel cannot turn to old models and finds answers in alternative forms of knowledge. Amanda’s story is constantly punctuated by David’s intervention, giving way to something that resembles a dialogue more than a monologue. David’s role in the story resembles that of an editor who is in search for what he calls time and again “the important” (“lo importante”), prompting her to skip details he finds irrelevant. He guides and censors Amanda in her recounting of the events: as a survivor of the same affliction, he is the knowing subject who understands what she is going through. In the process, he tries to teach her how to read her own body and the ways in which she interacts with the environment. In a way, the novel postulates a newfound urgency in storytelling and advocates for an economy of language that reduces the story to “the

important.” At the same time, it posits a reeducation of reading that would allow us to find our way in the present world.

The novel closes with a different protagonist, Amanda’s husband, who is similarly unable to read the signs:

No mira hacia atrás. No ve los campos de soja, los riachuelos entrelazando las tierras secas, los kilómetros de campo abierto sin ganado, las villas y las fábricas, llegando a la ciudad. No repara en que el viaje de vuelta se ha ido haciendo más y más lento. Que hay demasiados coches, coches y más coches cubriendo cada nervadura de asfalto. Y que el tránsito está estancado, paralizado desde hace horas, humeando efervescente. No ve lo importante: el hilo finalmente suelto, como una mecha encendida en algún lugar; la plaga inmóvil a punto de irritarse (126).⁷⁴

On his way back to the city, Amanda’s husband wants to leave everything behind. This obstinacy makes him fall into the same mistake as his wife’s: he separates himself from the environment by refusing to face it. Notice the repetition of “no” at the beginning of four of the sentences, underlining his refusal. The places he leaves behind show how urban and rural spaces are intermingled; the accumulation of cars brings him to a halt that resembles the stillness of the town he left. It is precisely that deceitful stillness that conceals the invisible danger: the imminence of something that is about to happen but which we do not see until after it has taken place; and the education of that sensorium with which the novel is occupied. The politics of the novel consists in a new relation with the environment and a renewed relevance and urgency of storytelling. Storytelling is still relevant, and we need to keep searching for ways of

⁷⁴ “He does not look back. He does not see the soy fields, the streams weaving the drylands, the miles of open country without cattle, the villages and factories, reaching the city. He does not notice that the return trip has been getting slower and slower. That there are too many cars, cars and more cars covering every rib of asphalt. And that the traffic is stagnant, paralyzed for hours, smoking effervescent. He does not see what is important: the thread finally loose, like a burning wick somewhere; the immobile plague about to get irritated.”

telling stories even about those experiences we find hard to put in words and even if we fail in our attempt.

In the end, the “important” was not indicating the exact moment of the lost event, but a reeducation of Amanda’s (and the reader’s) sensorium that would allow for a new form of reading the environment, recognizing its dangers, and telling stories about it. In *Distancia de rescate*, the voice of the victims acquires authority; their expertise stems from their own experience. As Nixon points out: “Contests over what counts as violence are intimately entangled with conflicts over who bears the social authority of witness, which entails much more than simply seeing or not seeing” (16). There are no witnesses because there is nothing to see. One cannot be a witness of slow violence itself but one can be a witness to its effects and consequences.

Reading the sky in Oloixarac and the environment in Schwebelin could be thought as what Isabelle Stengers and Bruno Latour call the “intrusion of Gaia” or, in concrete, the disarticulation of the background and foreground, between scene and context, between subject and milieu. The very idea of milieu needs to be reconsidered when the subject and its environment are entangled, invalidating the concept of an “outside.” Ultimately, what both novels reveal is that the context is no longer a background upon which the narrative is imprinted, but it has specific forms of agency. This is the form of reading that I outline: an ecological reading that is not only in solidarity with the nonhuman, but that goes beyond the subject and is a reading of and within the environment.

CHAPTER 2

STORYTELLING AND NONHUMAN SCALES

The question of scale is a key one in the debates around the Anthropocene. As Dipesh Chakrabarty (2014) has pointed out, one of the challenges posed by climate change is that it brings into view the collision of three histories “that operate on different scales and at different speeds” (1); these being the history of the earth system, the history of life, and the more recent history of industrial civilization. An idea echoed by others such as Bruno Latour (2017) who argues that nothing is at the right scale, and Danowski and Viveiros de Castro, who admit that “when political economy meets cosmic entropy, it is the very ideas of scale and dimension that seem out of scale.” (95) and “[t]his phenomenon of a generalized collapse of spatial and temporal scales (...) heralds the rise of a critical continuity between the rhythms of nature and culture, a sign that indicates a massive, imminent phase transition in human historical experience.” (17).⁷⁵ As summarized by Timothy Clark (2012), one of the main crises of our time is that of a “derangement of scale.” This chapter investigates two works that explore the question of scalar multiplicity from a narrative standpoint. Both *Nostalgia de la luz* (Patricio Guzmán, 2010), and “Como una cabeza enloquecida vaciada de su contenido” (Patricio Pron, 2013) tell stories where temporal scales are stretched conflating human and nonhuman temporalities. As we will see, both narratives focus on single “objects” and explore how they can be read from different

⁷⁵ In Claire Colebrook’s words, “‘our’ time is no longer our own,” which has led twenty-first century literature orient itself beyond the individual, the family, and even the social whole of earlier centuries. She adds that “[t]he planetary scale is at once spatial and temporal, and – as captured by the notion of the Anthropocene – is at once expansive (by orienting thought to times beyond that of a lifetime, nation and species) and parochial: it is our history that delimits this planet” (2017 1018).

timescales: in the first case, the object is the Atacama Desert in Chile, in the second case, it is a plastic wig. Scale as the induction of a new form of legibility: making human and nonhuman entanglements and shared material histories legible.

2.1. Pron: Bridging the Human/Nonhuman Gap

The first part of this chapter will be concerned with Patricio Pron’s short story “Como una cabeza enloquecida vaciada de su contenido,” published in 2013 as part of his book *La vida interior de las plantas del interior*. The story’s use of temporality and, in particular, its planetary scale—one that far exceeds that of human temporality—, make the reader question the qualification of the events that make up the narrative, while interrogating the possibilities of witnessing. In brief, the story asks what an event is and how can an uneventful world be narrated. Set in a context of uneventfulness, the story gives precedence to a form of it that points to a reinterpretation of what we understand as an event, where the very idea of an event seems to have lost its significance. This is crucial to the question of scale: time slows down and adopting a nonhuman temporality produces a rift that introduces the question of what a narrative without events can be. On a planetary scale, what is an event? And who are witnesses to extremely slow planetary processes that extend beyond the temporalities of life—both human and nonhuman? These questions serve as the point of departure of Pron’s story that re-signifies the concept of “eventfulness” and “uneventfulness” and thereby reevaluating the way we tell stories and what we tell stories about: which stories are worth telling.

A Plastic Object Without Any Meaning

Comprised by twelve fragments, it starts at the chronological end and tells the story of an object, a blond plastic wig, throughout a trajectory that inverts the arrow of time and spans an unfathomable scale that stretches from 50 million years ago when it was organic matter till our modern era, presumably the present. Each one of the fragments is a snapshot of a point in time in the wig's story. The wig is described as “un objeto de plástico sin ningún sentido” (49),⁷⁶ and this senselessness will carry over to the rest of the story. “Como una cabeza...” also tells the story of the subjects associated with the object, subjects that not only share the wig but also their “empty heads,” as signaled in the title. The head, having been emptied of its content, becomes an empty receptacle that serves as a vehicle for the object in question: the wig. What we have, then, is that the subject/object relation is made complex, since both subject and object lose their specificity: the subject is devoid of interiority, it is a simple vehicle for an object. On its part, the story of the wig goes all the way back to before it acquired its form, and spans until after it has lost it. The result is that the story is not even that of an object, but it loses its integrity by becoming an iteration in a history of matter. In this regard, it is no longer an “object” in the strict sense nor is it associated with “subjects” in the strict sense. At the same time, there is a stark contrast between the apparent meaninglessness of the object and the meaning it acquires when seen in its deep history, between the brevity of its use value and the long duration of its material constitution.

⁷⁶ “A plastic object without any meaning.”

The wig is present, in one material form or another, in every one of the fragments. Other motifs that are repeated are the one that is anticipated in the title: the empty head; as well as the image of a stain of brains scattered on the asphalt. In addition to this, there are several instances of violence that in every case are met with total indifference, and an emphasis on the politics of sight: what the subjects see and what they do not see receives close attention throughout the story.

The chronological end of the story, told in its first fragment, presents us with two albatrosses that come across the wig while scavenging for food on the North Atlantic garbage patch; a name that is self-explanatory: it is a an area of man-made marine debris found floating on the North Atlantic Ocean, estimated to span hundreds of kilometers. We first encounter the wig at the end of its journey, when it has lost its use value and becomes trash. It should be noted that at this point the wig is no longer a wig: after having been partially burnt by one of its former owners, in its journey through the ocean it has now lost its shape (like everything else in the garbage patch) and is entangled with a series of other objects.⁷⁷ The first reference to sight appears in the second sentence of the story, where in the description of how the albatrosses met each other while fighting over a piece of squid, we read that as they realize they have lost their food in their struggle: “ambos pájaros se quedaron perplejos contemplando el mar” (39).⁷⁸ This stands out as an exception because there is an overall lack of contemplation throughout the story that borders with its impossibility, the characters are unable to see anything but themselves. As I will

⁷⁷ “El otro albatros suelta una hebra finísima, que sale de su pico en un amasijo de pelos plásticos a los que hay enredados conchillas y jugos gástricos” (40) (“The other albatross releases a very fine strand, which comes out of its beak in a mass of plastic hairs with tangled shells and gastric juices”).

⁷⁸ “Both birds were perplexed contemplating the sea.”

developed later, the way I read this is as an impossibility of witnessing: even when they do see, the subjects are unable to witness. In fact, this is the only instance of “contemplation” where the verb is used, and it is significant that it is the birds that are the subjects of contemplation. In an inversion of the humanist matrix, the albatrosses are capable of contemplation in a world where the humans are not, the latter are only able to see.

There is a lack of overall awareness in the subjects presented in the story, evident from the very beginning, where “ninguno de los albatros que pueblan la mancha puede comprender su expansión y ninguno presta atención a las estadísticas” (39),⁷⁹ a passage that could be read in different ways. On the one hand, it could allude to the albatrosses’ incapacity for complex thought, however, on the other, far from making that a difference between them and their human counterparts, the rest of the story confirms that this is a shared trait between the human characters and the albatrosses: none of them are able to comprehend the scale and deep time of matter that the story is foregrounding, something that is reinforced in the birds’ indifference towards the garbage patch and its origins. When the short story names the albatross, it could be including all other characters in their incapacity for conceiving both the garbage patch and the trajectory of the wig. As mentioned earlier, this sense of continuity is strengthened by the series of motifs that cross the different fragments; like a set of patterns, these recurring motifs ensure a form of legibility in the underlying common threads they bring forward.

⁷⁹ “None of the albatrosses that populate the patch can understand its expansion and none pay attention to the statistics.”

“History” might not be the adequate word for the trajectory of the wig, since, as we have said, it goes well beyond the human and into “deep time,” also called geological time. The story, then, stretches temporality to a nonhuman scale. In doing so, it serves as a device to see at a scale that defies imagination. It brings us closer to think about what Quentin Meillassoux calls the “arche-fossil⁸⁰” and is tied to the “problem of ancestrality:” a world where humanity is absent or, in Meillassoux’s words “a world that is not the correlate of a relation to the world” (43). We could summarize the main issue of the story as one of scale: the temporal scale of the story is one that becomes inconceivable, and the challenge of its representation is what it is trying to overcome.

At the same time, the sense of temporality in the story also defies the notion of a beginning or an ending; to paraphrase the law of conservation of energy, nothing can be created or destroyed, only transformed from one form to another. This is what happens to the wig: it suffers countless transformations, mutating from one form to another, and revealing that the scope is a deliberate choice made by the narrator. This scope that the story opens, contrasts with the lack of memory and the insignificance of history and weightlessness of time and events. None of the events in the story seems to carry any significance nor alter its direction, they are as insignificant as the wig itself and, in this gesture, the story calls for a reflection on what matters, on how we classify what is important when telling a story and what we choose to leave out. In essence, the selection of the scope is the defining aspect of the story.

⁸⁰ Although it does not completely achieve this since the arche-fossil is “anterior to terrestrial life” and Pron’s story is still concerned with the world in relation to living things.

The story defies traditional categories of literary studies used to break down literary objects, and therefore the metalanguage it puts to use. In “Como una cabeza...,” categories of “subject” and “object” no longer seem appropriate, “temporality” is also problematized, and so are notions of “intentionality.” It is very difficult to pinpoint the motivations of the characters, who, like empty vessels, seem to move as if subject to chance; like the wig in the ocean, they drift as if pushed by ocean currents. More specifically, since the story follows an object, it becomes hard to ascribe intentions to it, for it is moved around rather than moving as a result of a driving force. If contemporary philosophers are proposing, contrary to the modernist tradition, that nonhuman materials have agency just like humans do, Pron’s story similarly equates the human and nonhuman but in the inverse direction: to propose that they share a lack of agency or, even better, that their agency is suspended.

The temporal leaps between fragments varies in length and in accuracy, at different points it is “unas semanas antes,” (41), “un tiempo antes de esto” (44), “unas horas antes” (45), “unos cuatro años atrás” (46), “unos meses antes” (47), “antes de todo esto” (47), and “aún más atrás en el tiempo” (49).⁸¹ These phrases open several of the fragments and serve as a vague temporal orientation. Towards the middle of the story, the ellipses are compressed, and it reaches the point where the wig acquires its form and we learn that it was made of recycled plastic in “un montón de bolsas plásticas, varias medias de mujer y un suéter” (45).⁸²

⁸¹ “A few weeks before,” (41), “some time before this” (44), “a few hours before” (45), “about four years ago” (46), “a few months before” (47), “before all of this”(47), and “even further back in time” (49).

⁸² “A bunch of plastic bags, several women’s stockings, and a sweater.”

Like for its human counterparts, “nada de esto tiene importancia para el albatros” (40),⁸³ which seems only preoccupied with surviving; this preoccupation supersedes any other. The only thing that matters to the characters is the wig’s use value; be it to hide a damaged eye, to conceal an identity or a bald head, or as a prop in a low-budget porno. At one point, a junkie finds it in a trash bin and retrieves it for its exchange value, which he exploits later by exchanging it for some heroin. Once they find no more use for the object it is discarded, and so finds its way to the next head. There is a fundamental indifference towards the object, but not exclusively, this indifference is generalized and includes humans and nonhumans alike. When one of the characters finds himself running away from others, he hides behind a newsstand and throws the wig and jacket he is using to conceal his identity in a basket, to which the pursuers respond with utter indifference: “los hombres pasan a su lado y le echan una mirada fugaz pero siguen andando. Ninguna de las personas a su alrededor parece haber reparado en lo que ha sucedido” (42).⁸⁴ As we can see, the indifference is then doubled by the bystanders who do not even notice anything happening. The wig is later only noticed by its last wearer, the junkie (Liza) that decides to use it to hide her infected eye. I say “wearer” because the story also puts into question the idea of ownership, particularly as a relation with a relative stability; the wig constantly jumps from one wearer to the next, and as we will see later, even its form is unstable since its matter was formerly a sweater, and oil before that, and an ancestor of a modern horse even before that.

⁸³ “None of this matters to the albatross.”

⁸⁴ “The men walk past him and glance at him briefly but keep walking. None of the people around him seem to have noticed what has happened.”

It is not innocent that the Liza's problem is precisely her poor sight, and when a journalist interviews her about "su historia" she chooses to tell the story of how she lost one of her eyes due to an infection, it would seem as if she did not have a story of her own and that she is reduced to the sum of her parts. The journalist seems to echo this in his reaction to her story: "imagina los diez mil pequeños araÑazos en la superficie de un ojo muerto y piensa en la cabeza de la mujer a su lado y se la imagina vaciada de su contenido" (41).⁸⁵ This story-within-a-story is unable to mobilize the journalist who remains completely apathetic towards Liza, so much so that at the end of the fragment he forgets about her altogether as he sees the wig floating away deeper into the sea. More than a story, it is an anecdote that leaves the listener completely unaffected: one would expect the journalist to listen to Liza's story, if only because of his job, but there are no signs of a conversation between them, there is no rapport between these two characters, nor at any other point of the story. The anecdote and its inability to mobilize the listener could be read either as another example of indifference or as a commentary on the state of storytelling in the present; that is, how storytelling has lost its ability to mobilize, something that "Como una cabeza..." is presumably fighting against. Given the story's focus on forms of seeing and not seeing, it is significant that it is her eye that she has lost due to the infection, and she then loses her other eye when she is mistakenly attacked by two men who take her for the wig's previous owner.

⁸⁵ "He imagines the ten thousand little scratches on the surface of a dead eye and thinks of the head of the woman next to him and imagines it emptied of its contents."

Deep Time and the Impossibility of Witnessing

The aforementioned references to seeing and non-seeing are scattered all over the story, and the things the protagonists see and miss are significant. The journalist, after witnessing how the junkie he just interviewed lost her other eye when she gets mistakenly attacked by two thugs gets distracted by the sight of the wig that drifts away into the ocean. When the previous wearer puts on the wig, he looks into a mirror and looking at himself elicits the following reaction: “no hay nadie allí para verlo excepto él mismo, y su cabeza enloquecida carece de capacidad y de tiempo para estos detalles” (43).⁸⁶ There is neither a witness nor time to stop, reflect on the situation or look back; events unfold one after another without interruption, as if they were being ran over by their circumstances. Speed is the mark of their time and the time of the wig, that gets tossed around from wearer to wearer. This contrasts with the duration of other processes that happen later in the story, particularly the time it takes for the organic matter to become petroleum that can be refined and used for making plastic than then becomes the sweater and eventually the wig. The difference between those durations is one of great acceleration and compression of time.

The daughter of a previous wearer shows a similar indifference towards the object: “La mujer no conocerá nunca la historia de la peluca, su cabeza enloquecida por el dolor no sabrá jamás de dónde ha venido y hacia dónde se dirige, pero es improbable que estos asuntos fueran a resultarle realmente importantes incluso de

⁸⁶ “There is no one there to it see but himself, and his crazed head lacks the capacity and time for these details.”

poder intuirlos siquiera.” (43-44).⁸⁷ Acknowledging that it is difficult to know the history of everyday objects, the narrator goes even further to affirm that even knowing these histories would not make a difference in terms of how we relate to them because of their insignificance: even if we give objects a story, they would still remain insignificant. The difference being that in this case she does stop to reflect briefly on the little she knows about the object because it has some sentimental value since it belonged to her late mother. But even this exception does not alter the wig’s trajectory, for it will end in the trash “como todas las otras cosas” (44).⁸⁸ So even when the object may have some significance, it becomes hard to imagine that it would be enough to save it from its fate as trash. Or even better, even when knowing the history of an object we can have certainty that it will eventually become trash.

Like previously with the albatrosses, the story speculates about what is of importance to the characters, what is worth lingering on and what is not: spending time thinking about the history and trajectory both of objects and circumstances seems unimportant, and this is precisely where the story makes its intervention. The importance of Pron’s story is that it tells the forgotten story of an object amongst the hundreds of objects we interact with daily and ignore. It outlines a disposition towards matter in the present and calls for a different approach: from one of indifference to one that acknowledges the historical weight of seemingly insignificant objects, thus putting into question said significance. Taking storytelling out of a human frame means reconfiguring priorities and reevaluating the difference between what matters

⁸⁷ “The woman will never know the story of the wig, her head maddened with pain will never know where it came from and where it is going, but it is unlikely that these matters were going to be really important to her even if she could even intuit them.”

⁸⁸ “Like all other things.”

and what does not, what is significant and what is not, even while acknowledging that this attempt might be futile.

The woman wearing the wig after it is purchased for the first time is part of a pornographic video production where she is violently objectified, and the wig is given to her by a man who produces the video. Her look towards the man (whose face remains off camera) and the camera is the same. When the intercourse is over she seems to have lost her ability to see: “cuando él efectivamente acaba, sin embargo, la mujer mira el suelo y no ve nada, absolutamente nada” (45).⁸⁹ Chamo, the last human character, works at a Venezuelan? oil well where the oil used to make the sweater is extracted. He is also the perpetrator of a pointless act of violence; once when he was going through a rough time a woman took him in, dressed him and fed him, when he was done eating he got up and stabbed the woman before leaving the house with no remorse: “nunca pensó si lo que había hecho era lo correcto” (48),⁹⁰ he does not stop to reflect on his actions and moves on. The characters have lost their moral compass and all sense of empathy and the exhibit a similar indifference towards both human and nonhuman agents.

Before becoming a wig, it was a “bunch” of plastic bags, several stockings, and a sweater. While making the sweater, the laborer cuts himself and an old memory strikes him: “A diferencia de lo que es prescriptivo, lo recuerda con una cierta distancia involuntaria que lo lleva a verlo como si él hubiese sido su testigo indiferente

⁸⁹ “When he does come, however, the woman looks at the ground and sees nothing, absolutely nothing.”

⁹⁰ “He never thought if what he had done was the right thing.”

y no su motor y su protagonista” (47)⁹¹. What comes to the fore here, within a context of indifference that we have described, is the lack of agency that permeates the whole story, where the situations seem to happen to the characters rather than them being active agents. The quote explicitly differentiates the “testigo indiferente” from the “motor y protagonista,” what we have in this story are several indifferent witnesses, in place of active protagonists with motives. The idea of an indifferent witness is closer to a spectator or a bystander than the witness that its name suggests and, as we have seen, this is a recurring position in the story. The sign that awakens the memory is a minor cut on his hand as he is sewing, which is similar in nature to a cut he got when he raped the woman in his teenage years, and his reaction to it is, again, one of apathy: “no le duele ni siquiera un poco” (*ibid.*).⁹² Another example of an indifferent witness is the journalist who, while he is interviewing Liza, sees how she gets brutally beaten by two men and refrains from intervening: “Liza se hace un ovillo en el suelo y el periodista de *De Telegraaf* quiere gritar algo pero se queda en silencio” (41).⁹³ This indifference complicates their status of witnesses because of the activity implied in being a witness in contrast with the inactivity of the spectator or bystander. To go back to the laborer’s memory, it should be noted that the situation described could not be further from having him as an indifferent witness, since it consists in an act of sexual assault he committed when he was a teenager. When he retells the story, he introduces a distance that moves him away from the protagonist role, he who sets the action in

⁹¹ “Unlike what is prescriptive, he remembers it with a certain involuntary distance that leads him to see it as if he had been an indifferent witness and not its motor and his protagonist.”

⁹² “It doesn’t hurt even a little.”

⁹³ “Liza curls up on the ground and the *De Telegraaf* journalist wants to shout something but remains silent.”

motion. If these characters fail to be protagonists of their own stories, the question then is who the protagonist is and what does it mean to be a protagonist.

Finally, the last character is a Hyracotherium, an ancestor of the horse who is sinking into a swamp. This animal ignores its descendants and the fact that it belongs to a large family but as it sinks it has a memory, a future memory of something that will not happen for several millions of years to come. It remembers the pre-Socratic philosopher Empedocles, who proposed that, in substance, all animals and things are the result of the combination of four elements (fire, water, air and earth), meaning that there are no beginnings nor endings but transformations, recombination of pre-existing elements. The story ends with the small prehistoric horse asking itself if it will be part of a future world and if it has been part of a previous iteration of matter.

What Is a Witness?

In a classical text from 1940, Bertolt Brecht puts forth an example of what he calls “the most primitive type of epic theater” (176). In his example, an eyewitness demonstrates to a group of people how a traffic accident took place: “The bystanders may not have observed what happened, or they may simply not agree with him, may ‘see things a different way’; the point is that the demonstrator acts the behavior of driver or victim or both in such a way that the bystanders are able to form an opinion about the accident.” (*ibid.*). Rather than delving into Brecht’s theory of epic theater, I am interested here first in the event, and second in the distinction between the bystander and the eyewitness. The nature of the event calls for a narrative and, the eyewitness possesses the knowledge to become a narrator: s/he was there, saw what

happened and now has a story to tell, even from the different angles of the event. The bystander, on his behalf, may or may not have seen the accident but what distinguishes him is his lack of activity: he does not get involved in the recount of the story; if he saw the accident or not is of no real relevance, what matters is his inactivity, which sets him apart from the eyewitness. The latter makes an active intervention by producing an account of what happened and involves others in the accident by telling them the story.

In our story, then, we can find several bystanders but no eyewitnesses: their indifference keeps them away from the events that then find no narrative. The only narrative we have is that of the “super-narrator” (Speranza) that is even above all-knowing. Without a narrative, it becomes difficult to conceive the events as such, since they clearly do not follow the logic of a “change of state” (Hühn); so if there is no change of state, we cannot conceive of these as events in a narratological sense. What we have, then, is a series of events that cannot be conceptualized as such and one process in particular that stands out for its slowness: the formation of the oil that will later be used to produce the wig. The change from organic matter into inorganic matter is undeniably a change of state, but its slowness makes it impossible to call it an “event,” for it does not allow witnessing, it is an imperceptible process. The uneventfulness of this process stands in the way of its narratability, and as we have seen in the previous chapter, this is a problem common to Schweblin’s novel and Pron’s story: narrating the imperceptible and invisible processes that mold our world and effect changes in it but seem to escape narration. In other words, it is a question of legibility: what both texts are attempting is to make these processes legible, even if

from the perspective of a narrative understood as a sequence of events, the fundamental process brought forward is not eventful in nature.⁹⁴ How to make these processes into a narrative, how to provide a story for geologic time, how to bring together human and nonhuman temporalities; these are some of the questions Pron's story raises.

The story reveals that when one adopts a supra-historical point of view events lose their eventfulness, they become nothing but small trifles in a deep history of matter. This seems to be the ethics of “Como una cabeza...”: since our contemporary world has lost its eventfulness, we need to think about other scales to create a new form of empathy that keeps into account the human but goes beyond it. It shows us that, when seen from far enough, anything will become insignificant. However interesting, this view is problematic in its radicality: what happens when an event does produce a change of state? What happens with historical events, or the political? These are questions that “Como una cabeza...” is not ready to answer. Maybe by turning to the ways in which violence is portrayed in the story we can catch a glimpse of this. At the same time, the endpoint of the wig's trajectory could suggest that it is the accumulation of insignificant events that eventually becomes significant.

As we have seen, another underlying thread that connects the different stories are different forms of violence that span from sexual assault to physical violence, to demeaning pornography, to cannibalism: all are met with similar indifference. This

⁹⁴ As Hühn explains about the concept of “event”: “it is generally used to help define → narrativity in terms of the sequentiality inherent to the narrated story. This sequentiality involves changes of state in the represented world and thereby implies the presence of temporality time), which is a constitutive aspect of narration and distinguishes it from other forms of discourse such as description or argumentation.” (80).

indifference could be seen as a form of violence in its own right and the indifference towards the wig is duplicated by the indifference to humans, producing a continuum of violence. In this sense, one could say that ultimately the call for empathy applies to both humans and nonhumans: the world needs fewer bystanders and more eyewitnesses, and this will restore its eventfulness making it narratable again. The key is the way we conceive of something as an event. If we go back to Brecht's example, it is easy to see how the traffic accident he describes is an event: it is a loud and clear change of state, there is a driver and a victim who will suffer from its consequences (these might even be irreversible). However, as anticipated, the slowness inherent in several processes described in the story pulls them away from the idea of an event: the transformation of the *Hyracotherium* into oil is unmistakably a change of state, but hardly an event in that its narratability poses a clear challenge. This challenge is even acknowledged by the narrator: "Aquí nuestra historia podría perderse en la confusión de los objetos que conformaron la peluca, pero quizá sea mejor centrarnos en uno solo de los que fueron necesarios para su confección: el suéter sintético." (46).⁹⁵ Faced with a moment where this trajectory of matter becomes practically impossible to follow, the narrator makes the explicit decision of following only one of the objects used in the production of the wig. Hence, narrative imagination comes to fill the gaps in knowledge and tell the story of those unseen processes that shape our everyday lives, filling them with insignificant objects.

⁹⁵ "Here our story could get lost in the confusion of the objects that made up the wig, but perhaps it is better to focus on only one of those that were necessary for its manufacture: the synthetic sweater."

When describing what he calls “slow violence,” Rob Nixon underlines its uneventfulness as a narrative challenge,⁹⁶ and in our case the slowness pertains to geological processes that have shaped our planet. To put it in terms of the debates around the Anthropocene, once the human became a geological agent, it did so by drastically accelerating the rate at which the earth systems transformation occur.⁹⁷ So to flip the question of agency proposed earlier, in “Como una cabeza...” it is precisely in the non-acknowledgement of their agency that the characters reveal it. It is by exempting themselves from their agency that they reveal it in its full capacity, so the real issue is owning up to their actions. But let us return to the question of narratability rather than lingering on ethical questions of responsibility.

This inability speaks to our impossibility of witnessing the end of the world; unlike many popular (post) apocalyptic fictions, Pron’s story conceptualizes this end not as a catastrophe, but as a slow process that eludes our perception. The point of it is exactly its elusiveness and the impossibility of experiencing it as a catastrophe. The story poses the end of the world as a challenge for storytelling and provides a possible answer to tell the story of something that appears to be unnarratable. We are at the end of the world and we are unable to witness it, and this is where the role of storytelling comes in: to name and put words to this experience of unintelligibility.

⁹⁶ I quote Nixon’s definition at length: “By slow violence I mean a violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all. Violence is customarily conceived as an event or action that is immediate in time, explosive and spectacular in space, and as erupting into instant sensational visibility. We need, I believe, to engage a different kind of violence, a violence that is neither spectacular nor instantaneous, but rather incremental and accretive, its calamitous repercussions playing out across a range of temporal scales. In so doing, we also need to engage the representational, narrative, and strategic challenges posed by the relative invisibility of slow violence” (2).

⁹⁷ This has led some to deem humanity as a catastrophe in itself: if we were to consider it from a deep time perspective, the human as a geological agent can be read as an event.

A Story of Waste

Following its inverted timeline, one could read the story's conclusion in its opening passage, one that offers a meta-narrative reflection on storytelling in itself. In it, a couple of albatrosses encounter remainders of the wig while scavenging for food on the garbage patch. What follows is a comparison between the debris floating in the ocean and stories:

todas las historias son arrastradas por corrientes subterráneas y nada comprensibles a manchas que se encuentran en el mar y que son, vistas desde arriba, el repositorio de todo lo que alguien alguna vez en alguna parte ha pensado; son, para decirlo así, los vertederos de los pensamientos, y contaminan el mar, pero también dan refugio a una fauna habituada a vivir entre los restos. (40)⁹⁸

The passage proposes, on the one hand, an analogy between stories and waste, where stories are repositories of thought, but not just any form of repositories: landfills. As such, they are a form of pollution, but they become such because they are forgotten. That is, “Como una cabeza...” is proposing that the generation of trash is a combination of indifference and forgetting: we forget about things because we do not know their stories, we remain indifferent to them. At the same time, the narrator points out the fact that all of these objects that when seen from a distance look like stains on the ocean surface, when given a closer look reveal their stories: each fragment floating in the ocean contains a story waiting to be unraveled. The narrator goes even further by saying that these stories offer a form of shelter: on the one hand they feed the albatrosses and, on the other, they could help us survive the world-of-the-end. In

⁹⁸ “All the stories are carried by subterranean and incomprehensible currents to patches that are found in the sea and that are, seen from above, the repository of everything anyone has ever thought anywhere. They are, to put it one way, the dumps of thoughts, and they pollute the sea, but they also give shelter to a fauna used to living among the remains.”

defense of its own art, “Como una cabeza...” suggests that we need to keep telling stories about the world to make it livable. It is attempting to make the signs of the world legible by creating new forms of storytelling. Storytelling, then, as a form of shelter, as a means of shielding us from the unknown, the unsettling vastness of the universe. We need to keep telling stories to try to overcome the rift between human and nonhuman temporalities, and as a way of bridging the gap between the cosmological and human orders, of giving new meanings to the signs of the world, making it readable.

This kind of storytelling need not be concerned with great events but pay attention to the mundane, the insignificant objects that make up our daily lives, each of which has a story to be told. As Michele Petit (2016) suggests, without stories the world would remain “out there,” indifferent and undifferentiated. For a place to be representable and inhabitable, for us to be able to inscribe ourselves on it, it needs to tell stories. She poses the example of a constellation: these have no scientific basis, they are created to fulfill our need of grouping them, naming them, and telling stories about them. To explain this, the French Anthropologist recounts a personal anecdote. Some time ago, she found herself in Brazil to give a series of conferences. She had been to the Southern Hemisphere before but had never noticed the sky, until that summer a colleague of hers took her to a farm in Minas Gerais. When the night came, the stars formed a universe that was completely unknown to her and a strange terror took over her. This is when she came to the realization how important the sky is as a point of reference, and how unsettling it is to be deprived of it. In line with Pron, she defines storytelling as a form of shelter, as a means of shielding us from the unknown,

the unsettling vastness of the universe. The loss of world is the ultimate manifestation of this experience. It is significant that she uses constellations as an example, for few things seem more stable than the stars above our heads: the firmament has remained practically unaltered for millennia, even when the meanings we may attribute to it differ vastly in space and time. In this sense, it should be noted that the albatrosses in the story live on the garbage patch, they have made it their home.

To go back to the definition of “disaster” outlined in the previous chapter, we could say that the end of the world is a disaster but not in the conventional sense of a sudden event, as imagined by apocalyptic fictions. The disaster is not just ecological, but it is so in that we are unable to read it as such, it implies a collapse in our universe of sense. We need to keep telling stories to try to overcome this rift, and as a way of bridging the gap between the cosmological and human orders (Svampa 20), of giving new meanings to the signs of the world, make it readable. We need stories to shield us from and help us survive the terrors of a changing and unrecognizable world of the end.

Birds have a long history in Western literature. In Spanish medieval literature they were figures of good or bad omen depending on the direction of their flight, in both cases they were forms of reading destiny. Out in the ocean, they have served as a form of orientation to sailors for centuries. Capable of finding their way around the globe, knowing when they are moving away from the equator and towards the poles, birds can serve as guiding stars in daytime, they are a point of reference in the vast monotony of the ocean. The fact that these birds are albatrosses should not be overlooked, for these are particularly noted to be birds that are able to fly over long

distances. Reading a bird's flight can be a form of divination (orthomancy) or of orientation; of reading the future or understanding our place in the world. As John Durham Peters points out: "The sea has long seemed the place par excellence where history ends and the wild begins: the abyss, a vast deep and dark mystery, unrecorded, unknown, unmapped" (53), to which he adds that it is still relatively unknown, and "a kind of planetary waste dump and graveyard for many forms of life" (*ibid.*) as the garbage patch confirms. As such, it is a place where humans are out of place, and birds and stars are ways of making a place of it. However, as we have seen, the birds in "*Como una cabeza...*" are not in flight, they are rather fishing for food among remainders, thus they participate in another form of making place, the one we have outlined above: storytelling.

"*Como una cabeza...*" imagines a planet before the world, a history of matter without humans, and even of humans without humanity. It is the story of matter before and after the human and, in this sense, it is attempting to take storytelling beyond the human. If "at its most elementary, event is not something that occurs within the world, but is a change of the very frame through which we perceive the world and engage in it" (Zizek 13), then the end of the world is an event even if it does not unfold nor read as such, for it changes the way we perceive and engage in it. In Zizek's words, it is an event "at its most elementary" but it is not so from a narrative standpoint, which explains why Pron needs to create a narrative device that will give an account of it. Its signs are those of indifference towards visible violence and the incapacity to grasp invisible forms of violence, coupled with different forms of loss: of agency, of eventfulness and the possibility of witnessing, of a Cartesian subject, of a framed

temporality; these define storytelling at the end of the world. By stretching the scale, Patricio Pron's short story collapses anthropological time and geological time, making the story an exercise in both microscopy and macroscopy: looking closer and zooming out. It tells the story of the end of the world, again, not as a catastrophe or a disaster: not as a “sudden overturning” but as an uneventful, nearly imperceptible, slow process that coincides with our incapacity for witnessing.

2.2. Guzmán: Atacama Out of Scale

Along with the “discovery” of America, Hannah Arendt (1958) claims that two other events “stand at the threshold of the modern age and determine its character:” The Reformation and the invention of the telescope. The latter is critical to the first half of this chapter: in the past 50 years, the Atacama Desert in Chile has become the preferred location for some of the world’s most powerful telescopes, which themselves play a prominent role in Patricio Guzmán’s film *Nostalgia de la luz* (2010.) This documentary engages the desert from the perspective of a dual search: that of the astronomers who are in search of cosmic energy and that of the women who are in search of the material remnants of their relatives disappeared by Augusto Pinochet’s dictatorship. In this instance, I will evaluate the different forms of reading and illegibility presented throughout the documentary, focusing specially on the qualification of these readings, their engagement of different temporalities and their position in relation to the past, the present, and the future.

The film opens with the voice of narrator and director Patricio Guzmán’s memory of a time when Chile was, in some sense, out of time: nothing happened, and

the monotony of its history duplicated that of the desert landscape. Until something did happen; the event that Guzmán describes as interrupting this monotony was the coming to power of President Salvador Allende in November 1970, which he describes as “un viento revolucionario nos lanzó al centro del mundo.”⁹⁹ The narrator identifies this becoming part of the world of Allende’s Chile with another event or series of events: the discovery of the Chilean skies by the international scientific community. Atacama’s extremely dry climate and lack of light pollution provide the perfect setting for observing the sky, giving way to the settlement of some of the world’s most important observatories.¹⁰⁰ What the film will show us, then, is how Chile caught the eyes of the world through these two parallel events. My analysis of the film will aim to show how in the present we can bridge the gap between a form of radical politics and the exploration of the heavens, by proposing a form of the political that stems from an engagement of the sky in what we could call a cosmo-politics.

The narrator takes us back in time to the early seventies when only the present time existed; Chile was peacefully isolated from the world and “Santiago dormía al pie de la cordillera sin ninguna conexión con la tierra.”¹⁰¹ This line plays with the dual meaning of the word “tierra” that can be understood, on the one hand, as both the Earth as a planet, thus thinking of Chile’s place in the globe and, as the images of the telescope we see on screen as we hear this phrase suggests, the cosmic position of our

⁹⁹ “A revolutionary wind threw us to the center of the world.”

¹⁰⁰ It should be noted that this analogy is not fully accurate for, if we look at the history of astronomy in Chile, we find that it long predates the 1970s (the date the film attributes to the “discovery” of the Chilean sky). What is probably the most significant early international collaboration in astronomy in Chile, the European Southern Observatory was created in 1962. This organization is currently building the Extremely Large Telescope, which will be the world’s largest optical reflecting telescope once it is completed.

¹⁰¹ “Santiago slept at the foot of the cordillera without any connection to the soil.”

planet in relation to the rest of the universe. On the other hand, “tierra” also means soil, ground, suggesting how the nation was historically detached from its material territory and, particularly, its “pampa”—the Chilean name for the desert. These are two of the many aspects of the Atacama Desert that the film will explore, reevaluating this engagement of the soil.

National and international interest in the Atacama Desert has similarly oscillated between its soil and its sky. Described at one point in the film as an “ocean of buried minerals,” it became very important to Chilean economy in the late 19th and early 20th centuries, when the extraction of Chile saltpeter (sodium nitrate) was at its peak.¹⁰² Even if mineral extraction continues today, its focus has shifted to other minerals and it is much less labor-intensive. As the film points out, the second half of the past century saw a significant growth in the international interest in its sky, due to the combination of lack of air and light pollution and radio interference, minimal cloud cover, dry air, and high altitude. Thus, it could be said that attention has shifted from its soil to its sky.

Latin American landscapes have captured Western attention and imagination since the European arrival in the continent in the late fifteenth century. If the Amazonian jungle has become known as the “lung of the Earth” in recognition to it being the largest and most diverse rainforest of the Earth, the Atacama Desert could be thought of as the “eye of the Earth” due to it providing perfect visibility of the sky.

¹⁰² The saltpeter industry reached its peak between the end of War of the Pacific and the crisis of 1930 – a result of the Wall Street Crash of the year before, Chile is said to have been the country most deeply affected by the crisis, owing to the fact that its economy was deeply reliant on copper and saltpeter exports to the U.S. (Bermúdez Miral).

Chile's geographical isolation also contributes to the aforementioned disconnectedness: it is isolated from the rest of the continent by the Pacific Ocean to the West, the Drake Passage to the South, the Andes to the East, and, finally, the Atacama Desert to the North. The desert constitutes one of the limits of the national territory, it is a borderland both literally and figuratively, since it has historically embodied the threshold of the nation-state, of sovereignty, and the imagination of a nation. In a way, the desert in its isolation mirrors the place Chile occupied in relation to the rest of the world. By showing how Chile came to the foreground of the international scene with Allende's election and the subsequent coup, what the film will do is put Atacama at center of the interrogation about an unresolved past of political violence. On the one hand, there is a political event that puts Chile on the world map: the revolution that Allende's election meant. On the other hand, Atacama becomes part of the global astronomical landscape and starts shaping into what it has become today: an astronomical hub for some of the world's most ambitious projects.

A Question of Time

The question of temporality –or, even better, of scale– finds itself at the foreground of the film. From being “out of time,” Chile comes to the foreground in the eyes of the world with Allende’s election and the subsequent coup that demoted him. Not only does the country come to occupy an important place in its contemporariness but it also comes into dialogue with the deep history of our planet and the observable universe through the scientific engagement of its sky.

Right after the reflection on time, the film changes perspectives and we see the Earth from outer space (see fig. 1 in Annex), the narrator describes the Atacama Desert as “una mancha marrón en nuestro planeta húmedo.”¹⁰³ The lack of water produces other-worldly features in the landscapes that resemble the surface of Mars. Nothing survives in the desert, nothing in it is alive, except history and memory, and it is referred to as “un libro abierto de la memoria.”¹⁰⁴ From the prehistoric past of fossilized mollusks that are a remnant of the times when the desert was covered by the ocean, to a more recent past of pre-Columbian indigenous inscriptions on its rocks, history is at the tip of our hands in Atacama, one need not scrape the surface of the desert to read these histories –they are readily available in plain sight. As we will see, these are only a few of the temporalities that coincide in this unique landscape.

Images of the Earth as seen from space remind us of “Blue Marble,” the first image of our planet as seen as a whole, taken in 1972 by astronaut Jack Schmitt. These images will repeat themselves throughout the film together with other images of our galaxy and unidentified nebula. If for a moment we were to forget the device recording these images, it could be said that they project the image of an Earth without humans; as seen from space our planet is a blue, green, and white sphere devoid of any form of life, much like the rest of the (known) universe. At a different scale, the same is said about Atacama –it is a place hostile to any form of life. Therefore, it could be

¹⁰³ “A brown spot on our wet planet.”

¹⁰⁴ “An open book of memory.”

said that these images produce the imagination of a universe without humans, an idea I will return to later.¹⁰⁵

As I have said, Atacama is a privileged site for different forms of reading, and I will focus particularly on the reading of the sky. “Reading” is here to be understood broadly and not as strictly alphabetic reading. In fact, there is no traditional reading to be found in the documentary, but rather, as I will argue, it focuses on different kinds of reading that are both pre- and post-alphabetic.¹⁰⁶ In doing so, the film crosses scientific and non-scientific readings and offers what I see as a model for future reading. The possibility of reading the sky puts the desert in a relation with the rest of the cosmos and, at the same time, with the rest of the globe, it becomes a territory for encounter: people from different nationalities converge in Atacama and collaborate in astronomic exploration. It is a place of departure for interstellar travelling without movement, with the aid of the telescopes that allow the astronomers to read the energy of celestial bodies. At the same time, it is a place that is closely linked to Chile’s recent national history as a place used by Pinochet’s regime for the establishment of concentration camps and the dispersion of the bodies of the “detenidos desaparecidos.” As the documentary explains, the bodies were unburied and either scattered around the desert or thrown into the ocean, which explains why often only

¹⁰⁵ Nicholas Mirzoeff describes this from a visual studies point of view as follows: “The Earth seems at once immense and knowable (...) Taught to recognize the outline of the continents, viewers could now see how these apparently abstract shapes were a lived and living whole. The photograph mixed the known and the new in a visual format that made it comprehensible and beautiful” (2), which he follows up on by saying that “Above all, it seemed to show that the world was a single, unified place.” (Mirzoeff 3).

¹⁰⁶ As Eric Downing points out: “Some of the earliest practices of reading were not of letters, words, or books, but of stars, entrails, and birds, and these practices had a significant impact on the way reading was understood in the ancient world.” (563). The documentary crosses these ancient forms of reading with ones that have emerged with new technologies.

fragments of bodies are found, something Violeta Berriós laments when speaking of her missing brother: “yo no quiero un pedazo, yo lo quiero entero.”¹⁰⁷

The film itself underlines these metaphors of reading by describing the desert as a book that we can read page by page. This readability is owed to the air, described as “transparent” by the narrator; it is the atmospheric conditions in Atacama, particularly its lack of humidity, what makes it such a unique landscape. The narrator describes Atacama as a “brown spot” in our humid planet, thus underlining the substance that makes our planet inhabitable, distinguishes it from other planets, and is nearly omnipresent on it; water.¹⁰⁸ This lack of water produces very unusual landscapes and formation that, as the narrator tells us, resemble the surface of a different planet.¹⁰⁹ It is, therefore, a landscape distinguished by its otherworldliness, by its exceptionality. Given these extreme weather conditions, the desert (in a common trope when it comes to these type of landscapes) is characterized by its emptiness, an emptiness that we could translate as a lack of life, it is hostile to any forms of life—both human and nonhuman—but it is rich in something else: history. Atacama is a place where history stays alive and, if dormant, has the potential to be awoken; this is what the film aims to do: putting the different histories and times that are juxtaposed in one landscape in dialogue so as to breath new life into them, giving way to new meanings and interpretations.

¹⁰⁷ “I don't want a piece; I want him whole.”

¹⁰⁸ In Patricio Guzmán's latest “elemental” trilogy of documentaries on Chile (after his first trilogy, *The Battle of Chile* [1975-1979]), *Nostalgia for the Light* comprises the first part, focusing on the sky; the second part is *The Pearl Button* (2015), focusing precisely on the water; the final part of the trilogy is *The Cordillera of Dreams* (2019), focusing on the land.

¹⁰⁹ This has led to the use of it as a setting for experiments comparing Atacama and Mars (Navarro-González et. al.)

In a rather paradoxical fashion, it is both a place of passage and permanence; it has been a place of passage for over 10,000 years according to the film; that is, humans have crossed the desert but never used it as a dwelling space. At the same time, objects remain, and so do bodies, which are mummified as a result of its dryness, which prevents the usual decomposition to which organic matter is normally subjected. These mummified bodies play a role in the film and are important to the search of those women who still have not been able to find the bodies of their disappeared relatives. If they were to find the bodies they are looking for, these would likely be mummified, which would -in turn- make them more easily identifiable than a body that has suffered from decomposition. As the film itself shows through one particular body that was found during its shooting, details such as fingernails and hair are still rather intact, making it recognizable and more easily read to the untrained eye.

The status of life in the desert seems to always be at threat, since it “holds on to the distinction between Life and Nonlife and dramatizes the possibility that Life is always at threat from the creeping, desiccating sands of Nonlife. The Desert is the space where Life was, is not now, but could be if knowledges, techniques, and resources were properly managed” (Povinelli 16). In our case this acquires another complexity when we think of Atacama as a repository for dead bodies. As we will see later, bodies of miners and indigenous people accumulate “like geological strata,” foregrounding that –to paraphrase the first law of thermodynamics– nothing disappears but everything accumulates; something that is particularly true in the case of Atacama. If we bring in the bodies of the disappeared, this could bring some form

of hope to the women still looking for them –despite active politics of erasure, the desert remembers.

“The Desert is also glimpsed in both the geological category of the fossil insofar as we consider fossils to have once been charged with life, to have lost that life, but as a form of fuel [that] can provide the conditions for a specific form of life - contemporary, hypermodern, informationalized capital- and a new form of mass death and utter extinction; and in the calls for a capital or technological fix to anthropogenic climate change” (Povinelli 17). I would like to underline two ideas from this quote: one being the potentiality of the dead that Povinelli reads as fuel, the other being the idea of mass death and threat of extinction. As we have seen, Atacama’s potentiality in relation to memory and history coincides with its hostility towards forms of life.

Deep Time: Reading the Sky. Telescopes

Going back to the metaphor of reading, the astronomers featured in the film are also seen as readers of the sky and, more specifically, of celestial bodies and their energy. We have both stories of professional and astronomers and aficionados, and Guzmán describes himself as part of the latter in a country where astronomy is “una pasión de muchos.”¹¹⁰ I will come back to another story of an aficionado in the next chapter, but first I would like to examine the expert opinion. Gaspar Galaz, the first interviewee, emphasizes that astronomy works with the past, and not just any past but, in his words, “the most distant past;” the deep time of the universe and the origin of all

¹¹⁰ “A passion of many.”

matter. Astronomy consists in the reading of light and energy that reaches our planet, our telescopes, and our eyes after traveling unimaginable distances in time-space.¹¹¹

In a meditation on the present, Galaz underlines the interval, the delay that exists between the emission of light by a body and our reception of it, reaching the conclusion that the present does not exist and we are always living in the past, reacting to things that happened in a past –no matter how distant or immediate it might be.¹¹² To quote art historian George Kubler: “The perception of a signal happens ‘now,’ but its impulse and its transmission happened ‘then.’ In any event, the present instant is the plane upon which the signals of all being are projected. No other plane of duration gathers us up universally into the same instant of becoming.” (15) Kubler will then say that “our signals from the past are very weak,” (*ibid.*) and it is precisely these signals that astronomers try to read using telescopes, which are the means to better capture those weak signals from the past, they are an optical device that improves their legibility.¹¹³ The legibility of the past, then, brings about a new understanding of the present, being the present a point where a multiplicity of pasts collapse.

The telescope both brings the stars closer to our reach, and it puts the Earth within a different range of scale, one where “all laws of the new astrophysical science are formulated from the Archimedean point, and this point probably lies much farther

¹¹¹ “Astronomers and historians have this in common: both are concerned with appearances noted in the present but occurring in the past.” (Kubler 17)

¹¹² His intervention is reminiscent of that of Kubler’s, who claims that “Actuality is when the lighthouse is dark between flashes: it is the instant between the ticks of the watch: it is a void interval slipping forever through time: the rupture between past and future: the gap at the poles of the revolving magnetic field, infinitesimally small but ultimately real. It is the interchronic pause when nothing is happening. It is the void between events.” (15)

¹¹³ This is precisely what Hannah Arendt regards as the revolutionary change introduced by the invention of the telescope, which “put within the grasp of an earth-bound creature and its body-bound senses what had seemed forever beyond his reach, at best open to the uncertainties of speculation and imagination.” (260)

away from the earth and exerts much more power over her than Archimedes or Galileo ever dared to think" (Arendt 263). This means that events are considered beyond the reach of human sense experience, and "beyond the reach of human memory and the appearance of mankind on earth" (*ibid.*). The Archimedean point is visually materialized in the film through the images of our planet from space but, at the same time, it is put into perspective by bringing in other viewpoints that complement it. For Arendt, the revolution brought about by the invention of the telescope in the late seventeenth century meant the creation of "a new science that considers the nature of the earth from the viewpoint of the universe" (248).

It is through what Didi-Huberman would call an anachronistic convergence of different times that we can establish a reading of/from the present. The film's narrative forms a constellation of stories of the desert that coexist horizontally without a given structure or hierarchy, putting the spectator in an active place of rearranging these images without instructions. The history of the desert is inevitably fragmented, and the film picks up the pieces of this post-dictatorial landscape in a way that does not aim at reconstructing a whole but reconfiguring these fragments in new manners.

In the deep time of the stars, the sky we see when we raise our eyes is not very different from the stars our ancestors saw, even the very first ones to ever do so. Relatively speaking, the history of our species is short compared to that of the universe as a whole. Nevertheless, even if the text is the same, what they read differed greatly from what we read today. For most of us, reading the stars has been relegated to experts in science and pseudoscience; we should not forget astronomy's relative

astrology –a form of knowledge that seems to coexist perfectly with the former, and one could even argue that they grow simultaneously without ever overlapping.

But even if Atacama has become a special place for observation, it is certainly not the first and last one. The history of reading the sky is long and fruitful, indubitably too long for me to tackle here; still I would like to propose that the film—like we saw with Olaixarac’s novel *Las constelaciones oscuras* in the previous chapter—is returning to an early form of reading, if not the first form of reading known to man. It is a pre-alphabetic form of reading that played an important role in pre-Columbian cosmologies, given that many of these cultures are known to have had an in-depth understanding of the sky and celestial bodies.

Deep Time: Reading the Sky. Sextants

Another period that is surfaced in the film is a more recent past of mineral extraction between the late XIX and early XX centuries. This history comes to the foreground in a cemetery where the bodies of miners and indigenous people accumulate “like geological strata,” mirroring the accumulation of minerals in the soil. Only mentioned briefly, this functions as a passage to the history the film lingers onto the longest: the recent history of the disappeared during Chile’s last dictatorship (1973-1990). One of the spaces where both histories converge is the Chacabuco ruins; an abandoned mining camp made into a concentration camp by Pinochet’s regime. The mining camp –where workers lived under terrible conditions that closely resembled slavery–, provided the perfect frame for the concentration camp, where the former houses were repurposed into cells. The film draws a continuum between these

two histories, and underlines that the only difference between the mining and concentration camp was the barbed wire.

We then meet Luis, a former detainee that was part of a group that, under the tutelage of a doctor who was an amateur stargazer (Dr. Álvarez, as Luis recalls), instructed them in astronomy. I would like to pause here and examine this case more closely for I believe that this inexpert engagement of the sky constitutes the center point of the film, it functions as its main axis and the cornerstone for a political understanding of reading and, more particularly, a reading that engages the celestial bodies.

Luis is shown hand-making a sextant (fig. 2), following the instructions from the doctor he still remembers well. This device differs from the telescope in that it does not magnify the image of the stars, it does not bring them closer or make them more visible, but it helps organize the star system; aided by the sextant, Luis is able to make a map of the stars. These instruments have long become obsolete, replaced by telescopes and satellites; in a way, they are remnants from a different time, they are anachronistic instruments that come to serve a different purpose –that of a leisurely approach to the sky.

At some point, the stargazing group that Luis was part of was banned by the camp authorities, who thought that prisoners able to read the sky might be able to navigate the desert and escape their captivity. They were not wrong; reading the stars has been a way for people to orient themselves since times immemorial: “For most of human history, the sky was the best place to find a culture’s values. The heavens are a source of legitimacy, meaning, and orientation for human beings and perhaps some

other animals as well. The sky is a compass, calendar, and clock if you know how to read it” (Peters 169-170). In the monotonous desert landscape, being able to read the stars means that the sky becomes a point of reference and an interruption of said monotony.

Reading the sky, then, was seen as a threat in case the stargazers were to become fugitives and leave their prison, but it also helped them endure their captivity, since Luis underlines the sense of freedom they got from stargazing. One could speculate that it allowed them to engage with a different scale –occupying their minds with the immensity of the cosmos could make them forget about their own daily struggles if only momentarily.

The introduction of Luis also implies a new perspective on knowledge and goes back to something that was anticipated in the opening of the film: an amateur understanding of the sky. Guzmán’s film not only crosses different disciplines but also introduces forms of knowledge that are what we could call pre-disciplinary in the sense that they do not belong to any formal disciplines and the subjects that take part in them are not professionally trained. Luis is the first example of this and later the film will focus on the women of Calama who, without any formal knowledge of archeology or forensic anthropology, traverse the desert looking for the bodies of their disappeared relatives.

Deep History: Reading the Soil

The most obvious form of reading the landscape appears early in the film when we see how the observatories share a common space with pre-Columbian rock

inscriptions (fig. 3). These rocks are followed by others and are signs of groups that traversed the desert for centuries, as we are told by Lautaro Núñez, a local archaeologist.

The dividing line between history and prehistory is marked by the mastering of a specific form of technology: writing systems. History begins when we have available written records that historians can read –so History is the discipline of the literate, who are both readers and writers. Prehistory is the domain of other actors present in the film: archaeologists who read other non-written objects such as artifacts and rock engravings in societies that did not develop a writing system. Astronomers read the deep history of the universe, also dealing with the past but at a different scale. What we can see through *Nostalgia de la luz*, nonetheless, is that the forms of reading that these elicit are closer to one another than these disciplinary distinctions would make them seem.

A moment of reading I would like to zoom in on is when we see another astronomer, George Preston, reading the calcium spectral line of a star (fig. 4), in what the film calls the “star’s fingerprint”—a form of identifying a celestial body by reading its matter. The machine converts the star observations in laboratory wavelengths, thereby rendering them legible. Preston describes the continuity between the matter that can be found in the stars and that of our bones, by saying that “some of the calcium in my bones was made shortly after the Big Bang.” If we are made of the same minerals as the stars; when we read their history, are we also reading our own? The film collapses the search of bodies into a broader search of matter, thus going beyond the biological and into the mineral history of matter. At the same time, on a

formal level, the film's various narratives are connected by clouds of stardust, which serve as a reminder that we all share the same material and energetic origin, that we have in common both with other human and nonhuman entities, both from this world and out of this world.¹¹⁴

It is in the reading of this mineral -calcium- where the two main searches that guide the film collapse. We see the women scraping the surface of the desert looking for bones (fig. 5), bones they are able to read. This is illustrated by a passage where we see Vicky examining fragments she describes as belonging to a human foot. It is by putting these bones within a larger history of matter that we can begin to understand the present. In this sense, it could be said that the film proposes a model for reading that could be understood as a form of being-in-solidarity with other beings: both human and nonhuman.

The astronomy enthusiasts from the previous section, –who practice it without formal instruction– provide an interesting contrast with the women who are looking for the material remnants of their disappeared relatives in the desert. As the stargazers, the women of Calama have no knowledge in archaeology or forensic anthropology, and in this sense their knowledge is purely experiential. The main difference between them is, of course, the fact that the stargazers carry out their activity as a form of leisure while the women see their search as a form of closure, mourning, and justice. Another difference is that while the astronomers stay still on the ground and use their

¹¹⁴ Peters explains this as a shared material history: “Our bodies, as the cosmologists like to say, are made of stardust, and our skeletons are mineral banks for rare elements. Our flesh on a cosmic scale is as precious as gold on an earthly scale— yet another reason why we should treasure each other.” (128-129).

telescopes to explore the universe, the women cross the desert, digging into the ground looking for bodies. The latter have a much more bodily interaction with the landscape, whereas the former's approach is of an intellectual nature. As we can see, the different temporalities are also present in the eye of the observer: the film not only reads several strata but also brings together a number of ways of reading that belong to different times. The reading aided by telescopes using state-of-the-art technology contrasts with the scarce resources the women in their quest. It also contrasts with Luis's handmade sextant and the experience of looking at the sky using only the naked eye and the natural conditions of the desert, where ostensibly everyone becomes a stargazer.

Like the astronomers, they are faced with the difficulty of a search in a landscape that is so large Galaz compares it to the immensity of outer space. Both these explorations face the difficulty of scale; the vastness of these spaces make the human body seem diminutive and fleetingly fragile. There is also differences in scales between the searches, aside from the obvious difference in size between the desert and the infinite space, the scale of investment of the women is incomparable to that of the astronomers. This is something Galaz points out, saying that he can rest at night; something he doubts the women can do –they will not be able to rest until they have found what they are looking for. In order to understand the most proximate, recent history, Guzmán investigates the most distant, merging the family memories and personal stories of those looking for their relatives with a history in the largest scale imaginable, carried out by astronomers who deal with nonhuman entities and impersonal histories.

Also like the astronomers, the women are searching for traces of calcium or—more specifically—traces of bones belonging to their disappeared relatives. They do so without the aid of the advanced technology or the highly specialized training the astronomers have at their disposition, only aided by shovels and their decades-long experience of traversing the landscape. One of the film's most powerful quotes laments the solitude and difficulty of their search; during her interview, Violeta Berrios whishes the telescopes not only looked to the sky but were able to go through the land to be able to find the disappeared.¹¹⁵ The quote also highlights how the trajectories of the both searches never cross paths —something the film will do at the end when it brings Violeta, Vicky, and Gaspar together and all three are shown looking into a telescope (fig. 6). This scene (that will be analyzed in the next section) speaks for itself in the sense that we cannot hear what they are saying nor see what they are seeing through the telescope, all we can witness is the encounter of these two seemingly irreconcilable searches and viewpoints.

The Future Is in the Stars

In an earlier documentary, *Chile, la memoria obstinada* (1997), Patricio Guzmán returns to Chile after 23 years, having left soon after the coup led by Pinochet overthrew Salvador Allende and imprisoned the filmmaker for a few months. During his exile, Guzmán released his famous triptych *La batalla de Chile* (1975, 1976, and 1979) on the political situation before and after the coup. Unsurprisingly, these films

¹¹⁵ “Ojalá los telescopios no miraran solo al cielo, sino que pudieran traspasar la tierra para poderlos ubicar.” says Violeta (“I wish the telescopes did not only look at the sky but could penetrate the earth to be able to locate them.”)

were not distributed in Chile under Pinochet's rule, but to Guzmán's surprise, even in 1996—six years after the return of democracy—the films have yet to be released in his motherland; the filmmaker then decides to take matters in his own hands. Armed with a camera crew and a copy of *La batalla de Chile* in his luggage, Guzmán goes back to film a documentary on people's reactions to his film, and memory of the dictatorship during its aftermath. In this film, testimony and the possibility of telling a story that has been purposefully concealed are at the center of Guzmán's enterprise: the goal is confronting the general audience with a truth that refutes the one-sided story told by the dictatorial regime.

Thirteen years have elapsed between *Chile, la memoria obstinada* and *Nostalgia de la luz*, and even when the latter film still denounces the problematic relationship Chile has with its own past: it denounces that the country is unable to think its most recent past and that it has been swept under the rug; the goal of the latter is in many ways different from that of the former. This difference, I will argue, lies in the ways in which both documentaries are political. In the first case, the disruption is produced by revealing a narrative that has remained hidden, by telling a narrative that has been erased by the official history. It is political in the sense that it reveals a truth that was unknown before being exposed, and the cinematic spectator becomes a witness of such truth.

The second case is more complex, and, at first sight, the fact that Guzmán puts the history of the desaparecidos in conversation with astronomic exploration could be understood as depoliticizing since it takes the narrative outside of what is conceived as a more political arena. However, I will argue that its political character emerges in two

ways: through what we could call an “assemblage” and through the introduction of what I have introduced earlier as “cosmo-politics.”¹¹⁶ If, as Bruno Latour has argued, “[t]he critic is not the one who lifts the rugs from under the feet of the naïve believers, but the one who offers the participants arenas in which to gather” (246), it could be said that Guzmán has moved to a form of political cinema that is closer to this last form: one that acts as a sort of platform or arena for participation, a vindication of different perspectives and forms of reading that broadens the narrative. This has been called a movement towards reconstruction and has been recognized as being “less concerned with exposing a given reality behind representation than with reconstructing an occluded reality, or with pointing to an absent one, by means of representation” (Foster 4). Hal Foster identifies this with the project of “forensic architecture” that looks to move away from a politics of the witness to a “politics of human rights advocacy” that uses fragmentary representations to reconstruct disputed events. But more than reconstructing the event, something that *Chile, la memoria obstinada* does (at least partially), *Nostalgia de la luz* is reassembling the pieces of the revolutionary dream by proposing a different politics that can emerge from it.

The scene of encounter outlined above is the epitome of the film’s narrative, which consists in the assemblage of a constellation of perspectives and stories that converge in the desert. By bringing together all these stories, the film seems to be pointing to the fact that when dealing with an event such as the recent Chilean

¹¹⁶ I introduce the hyphen so as not to equate what I see as Guzmán’s view with Isabelle Stenger’s proposed cosmopolitics in her multi-volume oeuvre of the same name. As summarized by Latour: “The presence of *cosmos* in *cosmopolitics* resists the tendency of *politics* to mean the give-and-take in an exclusive human club. The presence of *politics* in *cosmopolitics* resists the tendency of *cosmos* to mean a finite list of entities that must be taken into account. *Cosmos* protects against the premature closure of *politics*, and *politics* against the premature closure of *cosmos*” (2004 454).

dictatorship, one cannot take the Archimedean point; that is, a vantage point that results from a removal of the observer from the object in order to remain independent from it. While incorporating the technology that made this perspective realizable in the first place (the telescope), *Nostalgia de la luz* multiplies the narrative voices and gives voice to different forms of knowledge and puts them on a same level where they all coexist in dialogue informing one another. I would like to turn to the work of Jacques Rancière to read these interactions with the sky from a political perspective. Democracy, as understood by Rancière (1991 and 1999), is only possible parting from a position of radically equality, an equality that he foregrounds as an equality of intelligence, meaning that we are all aprioristically equal because we share our capacity of using our intelligence at our will. The emancipation of men will not come through others explaining them the exploitation they suffer, but what the oppressed need is to gain the necessary confidence in their own capacities so that they can interrupt the fictitious divide between the capable and incapable. This “communism of intelligence” is nothing but an enactment of a capacity that men already possess: the capacity of claiming an equal intelligence, and an equal right to speak to it. I would propose to read this as a radical de-hierarchization of forms of knowledge. A form of radical democracy is possible, at least understood in terms of the access to a certain form of knowledge: reading the stars.

Federico Galende reads the work of Rancière next to that of August Blanqui and Walter Benjamin as a critique of a form of pedagogy put forth by an idea of progress that goes against the emancipation he speaks to—a pedagogy that stems from

an assumption of an ignorance that needs to be breached.¹¹⁷ Galende is interested in retrieving what he calls “the first form of reading known to man,” the reading of the stars.¹¹⁸ The legibility of the stars is a form of egalitarian legibility of the world as a whole, a legibility that has been lost through the over-specialization of knowledge and its compartmentalization or fragmentation into smaller and smaller categories. The Atacama Desert, however, is the present witness of the survival of different forms of knowledge, one where memory is not relegated by pedagogy and where both sky and land are still readable. At the same time, Atacama finds itself as a place where memory is resurfaced and reveals its political potentiality in the creation of a different community based upon a different engagement of the sky. This is something the film brings to the foreground, by showcasing these forms of reading and equating them.

If “theory” is synonymous with thought or contemplation and speculation, and if contemplation was first and foremost a contemplation of the sky, it is safe to say that theory is, first and foremost, a theory of the sky: reading the stars in the firmament is the primordial form of reading, a form of reading that, as Benjamin has pointed out,

¹¹⁷ I quote Galende at length: “Se trata simplemente de la memoria de una capacidad para poner en relación cosas entre sí, orientarnos por medio de éstas y acceder a una forma igualitaria de legibilidad del mundo. Es más que probable que en el acceso a esta legibilidad hayamos aprendido un día por nosotros mismos que no hay una esencia trascendental de las cosas ni ningún metalenguaje ni ninguna palabra que venga a suturar al final del camino el empleo de todas las anteriores” (43) (“It is simply the memory of an ability to relate things to each other, orient ourselves through them and access an egalitarian form of readability of the world. It is more than likely that in accessing this readability we have learned one day for ourselves that there is no transcendental essence of things nor any metalanguage or any word that comes to suture the use of all the above at the end of the road.”)

¹¹⁸ A form of reading he describes as the earliest one known to man: “Toda lectura partió por ser lectura del cielo, toda lectura bebe una y otra vez de esta primera fuente. Esta primera fuente es la del comunismo, que no es de ningún modo la promesa igualitaria que veremos cumplida por el progreso, como quien divisa un valle tras las dunas sobre las que ha marchado durante siglos, sino la igualdad de todos los hombres que participan del mismo saber sobre el cielo” (*ibid.*) (“Every reading started as a reading of heaven, every reading drinks again and again from this first source. This first source is that of communism, which is by no means the egalitarian promise that we will see fulfilled by progress, as one who sees a valley behind the dunes on which it has marched for centuries, but the equality of all men who participate in the same knowledge about the sky.”)

has largely been lost in modern times. Benjamin identified modern man's being on Earth in terms of his relation to the sky as an "immense wooing of the cosmos," enacted during World War I for the first time on a planetary scale, when "[human] multitudes, gases, [and] electrical forces were [all] hurled into the open country, high-frequency currents coursed through the landscape, new constellations rose in the sky, aerial space and ocean depths thundered with propellers, and everywhere sacrificial shafts were dug in Mother Earth" (2016 94). The author underlines the massive proliferation of technologies that crossed the limits of the cities to invade new landscapes across different elements: sky, water, and land.

The quoted fragment belongs to the last entry of Benjamin's *One-Way Street*, which compiles a series of vignettes inspired by the urban landscape of Weimar Germany and is aptly titled "To the Planetarium." Even when the planetarium itself is only mentioned in the title; it is the idea of a model of constellations that comes to replace the actual experience of contemplating the sky that Benjamin finds compelling. In opposition to the modern man, the author points out that the ancients' interaction with nature was one of ecstatic trance, a contact that could only take place communally. Modern man has replaced the sky with its simulacrum, the naked eye with the telescope, and the communal with the individual; hereby depriving himself of the ecstatic experience of contemplating the sky.

In the case of Guzmán's film, however, instead of the opposition that Benjamin points out, we find different forms of engaging the sky coexisting. As we have seen, it is not only astronomers but also amateur stargazers who contemplate the firmament. What is political about the film is not the story of the defeat of a

revolutionary dream, and the world as a ruin of those dreams, but the gaze and the multiple forms of reading it recuperates. The multiplication of the eyes raised to the stars, and the affirmation of the right each one of us has over the history of the universe.

As anticipated, reading the sky has become an increasingly difficult task, first due to the introduction of its simulacrum that has come to replace it and thereby introducing a new gaze; one that is not contemplation but spectatorship, for the planetarium is the cosmos made into a spectacle. Second, this “immense wooing of the cosmos” has reached proportions unimaginable to Benjamin. Aside from filling the skies with both technologies and trash, we are also covering it with clouds, as evidenced by the fact that in its 2017 edition, the International Cloud Atlas incorporated a new classifier to its list of cloud formations called “homogenitus”, that is, clouds that are formed as a result of human activity.¹¹⁹¹²⁰ As we transform the earth we get encapsulated in it, unable to look above and beyond, our vision of the cosmos becomes clouded and we lose perspective.

Clouds and light pollution both work as metaphors for seeing in the Anthropocene, since one of its mains challenges is the difficulty in rendering it visible or legible.¹²¹ Phenomena that are altering our planet drastically often do so in a way

¹¹⁹ See the International Cloud Atlas, cloudatlas.wmo.int. And also, Digital Power Group, ‘The Cloud Begins with Coal – Big Data, Big Networks, Big Infrastructure, and Big Power’, 2013. techpundit.com.

¹²⁰ Bridle expounds on the impact of human activity on the atmosphere: “Long-term studies of the atmosphere have shown that it is in fact getting cloudier up there: the contrails are changing the skies, and not for the better” (Bridle, 198).

¹²¹ As Jesse Oak Taylor points out with an example: “On May 9, 2013, the daily mean of atmospheric carbon dioxide measured at Mauna Loa Observatory in Hawaii passed 400 parts per million (NOAA 2013). Invisibly, in the crystalline air high above the Pacific, the world passed a threshold legible only

that is invisible to the eye and can only become visible through the deployment of sophisticated technologies that, much like telescopes, bring them to sight. The fact that the stars are slowly getting out of sight is a metaphor for the invisible transformation of our planet.

Speculation

Thus, one question to ask, and that will remain unanswered for now, is what the place of theory as speculation is in a context where reading the stars is becoming increasingly difficult. A similar question is to be asked about the place of democracy (as outlined by Rancière). As seen through the film, these two seem to prove their potentiality in Atacama, but translating this example elsewhere might prove difficult if not impossible, given the desert's exceptionality. Nevertheless, I do believe that it offers a fruitful platform to think about the place of reading in the Anthropocene. If the future of our planet is often imagined as an inhospitable desert¹²² and we need to prepare ourselves for life in a hostile environment as such, *Nostalgia de la luz* shows us a desert where human and nonhuman find their common history and even outlines an ethics of living-together where the nonhuman is no longer the radical other but is

via sophisticated instruments, meaningful only in relation to an arbitrary numerical scale, and yet of genuinely planetary significance. And no one noticed" (73).

¹²² Here, I follow Danowski and Viveiros de Castro: "As the gravity and irreversibility of the present environmental and civilizational crisis become more and more evident, there has been a growing proliferation of new and old variations on a theme that we shall call (...) 'the end of the world.'" (1). And also: "the next generations (the generations next to us) will have to survive in an impoverished, sordid environment; an ecological desert, a sociological hell." (*ibid.* 17).

part of a same energetic history. That is, the human is read in relation to other-than-human scales and energies, in a non-anthropocentric history.¹²³

Even if the film does not explicitly point to it, the film speaks to a present urge to understand the world in a context of anthropogenic transformation that has reached global proportions. One could understand the film as a model for reading in the Anthropocene. When it comes to the Anthropocene, there is no Archimedean point; the fact that it blurs the nature/culture divide calls for what has been called an entangled understanding (Haraway) that requires an interdisciplinary and interspecies approach that accounts for the fact that, having become a geological actor, the human can no longer be understood as separate from nature. As has been widely argued,¹²⁴ it challenges our previously trusted categories and approaches to the world and it also challenges our storytelling.

It is by recuperating forms of reading the present that radically open its scale to temporalities that move from the most proximate past that survives in collective memory, to a pre-Columbian past that has left traces in the landscape, to a deep history of our species and the deep time of our universe. We can read the present by bringing together astronomy, archeology, official, and minor forms of reading, alphabetic and non-alphabetic, close and distant reading. The future, meanwhile, might still be in the stars after all, but that future will not (or, at least, not only) be read by a fortune teller that will predict how the events will unfold; but it will rather be through an opening of

¹²³ As Jeffrey Cohen explains: “During the Anthropocene, human time and geological time find their confluence” (25).

¹²⁴ See Morton (2007, 2013), and Danowski and Viveiros de Castro (2014), among many others.

the sky in a shared reading that we might be able to build ways of inhabiting the world to come.

As we have seen throughout this chapter, Pron and Guzmán take different approaches that have in common an interest in the potentialities of scale in relation to storytelling. While one focuses on a consumer item, revealing how even the most mundane objects have roots in the deep history of the planet, the other shows how the conflation of different histories is a matter of perspective. Through an exploration of the possibilities of scale, these works help us see ways in which the collapse of anthropological and cosmological can be conceptualized, not by bringing these to a human scale, but by stretching said scale and taking it out of joint.

To conclude this chapter, I would like to go back to a quote from George Preston, who describes the stars as being a part not only of our material history but also our environment as much as the trees are: “We live among the trees; we also live among the stars. We live among the galaxies” (in English in the film). We tend to conceive of trees as an essential part of our environment, but we do not attribute a similar significance to the stars. What *Nostalgia de la luz* seems to be pointing to is that we need not only look around but above and recognize ourselves as part of a larger ecosystem: that of the millions-year-old stars, our most distant ancestors. This is where the preceding and the present chapters overlap: in that by thinking at a different scale, we are also able to redefine the ways in which we conceive of our environment not only as our most proximate and immediate surrounding but encompassing other dimensions.

CHAPTER 3

READING THE FUTURE

The present chapter focuses on two projects by Mexican artist Verónica Gerber Bicecci, who describes herself as “una artista que escribe.”¹²⁵ These are: the “web oracle” *La máquina distópica* (2018) and the book *La compañía* (2019). Both the web oracle and part “a.” of *La compañía* (which consists of a graphic novel) were part of an installation under the name of *La máquina distópica* that the artist presented at the “Manuel Felguérez” Museum of Abstract Art in the city of Zacatecas as part of the XIII FEMSA Bienal “Nunca fuimos contemporáneos,” that took place between October 2018 and February 2019. As we can see, and in line with the author’s self-description, an important part of all three objects analyzed here were first exhibited to the public before becoming available online (as is the case of the web oracle) or being transmediated into books (as is the case of the other two).

Both share three traits that will be analyzed here: the post-natural and post-human world as a problem, the future as between the known and the unknown, and rewriting as a method for composition. The web oracle is, as its name suggests, an interactive software that predicts the future and works through three parameters: year, pollution, and substitution of human labor. The output it generates has a visual component made of microscopic images of contaminated water from the mine “El bote” (in Zacatecas) and designs generated by Manuel Felguérez’s *La máquina estética* (1975). Felguérez (who gives name to the aforementioned museum) was a

¹²⁵ “An artist who writes.”

Mexican abstract artist and one of the pioneers in digital art in Latin America, whose *La máquina estética* consisted of a program “que permita -a partir de un modelo- la producción ‘infinita’ de nuevos ideogramas, diseños con todas las características de estilo que definen la obra plástica de un autor”¹²⁶ (25). Meaning that the program’s parameters were stylistic traits of the artist’s previous work. The text component consists in fragments from Amparo Dávila’s poetry, where the nouns are replaced by “un vocabulario empresarial, laboral y ambiental.”¹²⁷

Part “a.” of *La compañía* is also an exercise in rewriting Dávila’s work, in this case one of her most celebrated short stories “El huésped.” Since it is a graphic novel, each of fragment of text is paired with a photograph taken by Gerber and two other photographers. As of part “b.,” it includes 100 fragments from a myriad of sources that tell the story of mining in Nuevo Mercurio and its lasting socio-economic and environmental impact.

Gerber’s post-natural and post-human world is highly contaminated by toxic substances that are the result of an irresponsible exploitation of natural resources. As such, her work can be seen as a series of devices that work with the (in)visibility of what the artist calls the “ecological and social catastrophe of our present.” Aside from this, the present chapter will focus on the ways in which the artist brings into dialogue different temporalities and spaces: the recent past of mining, her artistic precursors in Dávila, and Felguérez, and the deep time of the Earth in relation to the rest of the cosmos both through the impact of meteorites and the robotic probes launched into

¹²⁶ “That would allow—from a model—the ‘infinite’ production of new ideograms, designs with the style characteristics that define the plastic work of given artist.”

¹²⁷ “A commercial, labor and environmental language” (translation taken from Verónica Gerber Bicecci’s website: veronicagerberbicecci.net).

space. In this way, the artist collapses the literary and artistic archive with the geological archive, pointing to new and old forms of reading and writing the archive and conceiving it as a place where the human meets the nonhuman.

Also relevant to this research is the ways in which Gerber's work thinks about and conceives of the future, where man and machine are intertwined both on the formal level as on the level of representation. The web oracle is a futurist device of futurology in itself: futurist because it belongs to the future given that it is not a man nor a place (as oracles used to be) but a machine, indicating that the future is already here; and of futurology because its function is predicting the future. This machine puts what has been one of the most ubiquitous uses of computing for the last eighty years at work: the creation of models and the capacity of forecasting. It also reveals how these devices have taken away prediction or future reading from the occult and brought them into the realm of cybernetics, statistics, and probability. In so doing, it draws a parallel across different forms of reading the future.

At the level of composition, the text replacements are either carried out by algorithms or include elements that were created algorithmically such as the designs from *La máquina estética*. When this is not the case—as in the rewriting of “El huésped”—, the replacement method imitates the work of algorithms as it is syntactic in nature: it includes nouns, the verb tense in which it is written (which changes from the past to the future) and the point of view (from the original third person to the second person). One of the effects of these changes is that the text reads as an oracle that directly addresses the reader, making them the protagonist of the text they are

reading. In addition to this, it should be pointed out that one of the noun substitutions consists in replacing one of the human characters with “la máquina.”

3.1. La máquina distópica

To think about the links between literature and contemporary art, we should turn to the first decade of our century, where we can find a revival of sorts of the historical avant-gardes in Latin America.¹²⁸ Reinaldo Laddaga (2007) probably summarized the literary landscape best by declaring that “toda literatura aspira a la condición de arte contemporáneo” (14),¹²⁹ that is, writers were attempting to bridge the gap between literature and contemporary art. The examples he poses of this kind of literature are the works of César Aira (Argentina), Mario Bellatin (Mexico), and Joao Gilberto Noll (Brazil) but could also be extended to someone like Enrique Vila-Matas (Spain). About these writers Laddaga will say that they are not interested in producing representations of certain aspects of the world nor in proposing abstract designs that result in fixed object, but rather “en construir dispositivos de exhibición de fragmentos de mundo” (*ibid.*).¹³⁰ That is, writers attracted to contemporary art to the point where they would incorporate its methods and even thematize it in their literature,¹³¹ inspired by the tendency of “construir menos objetos concluidos que perspectivas, ópticas,

¹²⁸ As an example of this, the year 2006 saw the publication of two works *María con Marcel. Duchamp en los trópicos* by Raúl Antelo and *Fuera de campo. Literatura y arte argentinos después de Duchamp* by Graciela Speranza, both charting the influence of Marcel Duchamp’s work in Argentinian and Brazilian art and literature.

¹²⁹ “All literature aspires to the status of contemporary art.”

¹³⁰ “Building display devices out of fragments of the world.”

¹³¹ For example, Aira’s *Duchamp en México* (1997) and Bellatin’s *Lecciones para una liebre muerta* (2005).

marcos que permitan observer un proceso que se encuentre en curso” (*ibid.*).¹³²

Laddaga underlines the fact that the book is not the perfect medium for this and, as a result, these writers write against the very medium they are using: “Se trata de libros del final del libro, libros de la época en que lo impreso es un medio entre otros de transporte de la palabra escrita” (15).¹³³ A fragile medium, the book has lost the solidity attributed to it until not long ago.

Verónica Gerber Bicecci has, in some way, taken the inverse route of the aforementioned writers. A self-described “artist who writes,” she is first and foremost and artist, and only second a writer. Her books are often a remediation of her work as a visual artist, and such is the case of an important part of both books analyzed here. Having started her career as an artist in 2001, from early on her work explores the interaction between visuality and the written word, such as in her 2005 visual essay *Espacio negativo*, which “traces the concept of negative space through diverse areas of knowledge”¹³⁴ including astronomy, philosophy, and conceptual art. It was the result of her undergraduate thesis in visual arts. Throughout her work she has developed an interest in exploring what she calls “calligrammatic writing,” and while the combination of image and text is present throughout her work, it is in her visual essay *Las palabras y las imágenes* (2018) where she articulates her ideas about their combination. A rewriting of René Magritte’s text by the same name, in it she argues that the internet

¹³² “Concerned less with creating finished objects than perspectives, optics, frames that allow observing a process that is in progress.”

¹³³ “These are books from the end of the book, books from a time when print is one means of transporting the written word, among others.”

¹³⁴ Taken from the artist’s website: <https://www.veronicagerberbicecci.net/espacio-negativo-negative-space>.

is the most complex calligram in existence and that emojis and memes have redefined the ways we communicate.

She has further developed her ideas on new forms of reading in a chapter in the edited volume *Hacia una antropología de los lectores* (2015) compiled by Néstor García Canclini. Her chapter, co-authored with Carla Pinochet Cobos, consists in a, ethnographic research on how a group of 52 writers and visual artists from Mexico City read. Here, they find that the way contemporary artists and writers read veers away from traditional, linear forms of reading, and into fragmentary, reticular reading oriented by the different projects they may be working on. If one thing is clear it is that for Gerber (as for Aira, Bellatin, and Noll, in Laddaga's words) her work does not begin nor end in the book, this medium is just another instantiation of it, as Cristina Rivera Garza puts it “[e]l libro (...) sólo es una forma de captura momentánea de la escritura” (104).¹³⁵ For Gerber, even occupying the position of a writer is transitory, as we can see not only from her self-description as an artist who writes, but, more importantly, by her body of work: her books are never *just books*; they are always instantiations of a larger body of work that is constantly remediated, of a whole ecology of reading.

Calculation

The first part (“a.”) of Gerber’s book consists in a photonovel or, better, a graphic novel that includes photographs that are intervened with “pictograms” belonging to Felguérez’s *La máquina estética*. Some of the photographs were taken recently by the author on a trip to San Felipe Nuevo Mercurio (from now on “Nuevo

¹³⁵ “The book is only a form of momentary capture of writing.”

Mercurio”), Zacatecas, those corresponding to rocks found in Nuevo Mercurio were taken by Elizabeth del Ángel, and the ones showing barrels containing polychlorated biphenyl and ash were taken by Héctor René Vega Carrillo in 1986 (Gerber 2019a 193). Juxtaposed on the images is a rewriting of Amparo Dávila’s short story “El huésped.”

As we have pointed out, rewriting and reworking work by other artists plays an important part of Gerber’s work. It should be added that intertextuality is present not only in relation to other artists and writers, but also to other works by Gerber. Given this, focusing on only one of her works would be counterintuitive, which is why the current chapter will focus on three of her projects that she carried out and published between 2018 and 2019.

La máquina distópica (oráculo web) was made in collaboration with Canek Zapata and Carlos Bergen. As described earlier, it is one of a three-part installation that also included the graphic novel that will be analyzed later and a map showing meteor impacts in the state of Zacatecas intervened by testimonies from an impact that took place in 1978. As part of the installation (and later included in *La compañía*), the image was placed as a poster in different parts throughout the city. As described on the artist’s website, the web oracle “calculates” virtual omens comprised of three elements controlled by three indicators:

1. Indicador espaciotemporal: va del 2018 al 2699 y arroja composiciones geométricas de entre 4 y 16 figuras; el número de figuras aumenta hacia el futuro. Las composiciones son una reescritura con programación generativa de las reglas de La máquina estética de Manuel Felguérez y Mayer Sasson, una de las primeras obras de arte digital mexicano.

2. Indicador de contaminación: va del 0 al 100% y elige de entre una serie de fotografías microscópicas de H2O contaminada con metales pesados de la mina El bote, Zacatecas. Conforme la contaminación aumenta los colores originales de la imagen mutan.

3. Indicador de sustitución del trabajo humano: 0, 1x, 2x, 3x y determina la sustitución de cero, uno, dos o tres sustantivos de la obra poética completa de Amparo Dávila por un vocabulario empresarial, laboral y ambiental. La sustitución la realiza un bot de texto.¹³⁶

After twelve consecutive editions of the FEMSA Biennial in Monterrey, “Nunca fuimos contemporáneos” (“We have never been contemporary”) in 2018 was the first time it was moved to the city of Zacatecas, capital city of a state with a long mining history.¹³⁷ The title of the biennial is a play on Bruno Latour’s *Nunca fuimos modernos (We Have Never Been Modern)*, a provocative and in many ways foundational work where he questions the idea of modernity and its distinctions between nature and society, and humans and things, among others. The name of the FEMSA Biennial is therefore both an homage to Latour and his influential work and a way of questioning the concept of contemporaneity. According to the biennial’s artistic director, Willy Kautz, one of the goals was taking a stance against a common trend in this kind of events of presenting “the most innovative and advanced art of the

¹³⁶ “1. The space-time indicator: runs from 2018 to 2699 and outputs geometric compositions of between 4 and 16 figures; the number of figures increases with the movement to the future. The compositions use automatic programming to rewrite the rules of *La máquina estética* [The Aesthetic Machine] by Manuel Felguérez and Mayer Sasson, one of the first Mexican works of digital art. 2. The pollution indicator: runs from 0 to 100% and makes a choice from a series of microscopic photographs of H2O polluted by heavy metals from the El Bote mine, Zacatecas State, Mexico. As the pollution levels increase, the original colors of the image mutate. 3. The substitution of human labor indicator: 0, 1x, 2x, 3x, and it determines the substitution of one, two or three nouns in the Amparo Dávila’s complete poetic works by a commercial, labor and environmental language. The substitution is made using a text bot.” (from the artist’s website).

¹³⁷ Curator Fabiola Iza suggested the following on the choice of the new host: “In a country that still deals with the specters of its colonial past, Zacatecas offers a compact and complex setting—thanks to its strategic geographical position and impressive mineral wealth, the city was once a key piece for the enrichment of the Spanish Colony and, today, the same reasons lead it to be a setting for ecocides, the displacing perpetrated against indigenous groups along with a very high rate of migration—to which is added a unique artistic tradition that has been relegated to the margins of the so-called contemporary art.”

moment” (Iza). That is, in spirit, the event looked to question the “contemporary” in contemporary art, by taken a critical look to the present. In her review, Fabiola Iza underlines that one of the biennial’s main foci of critique was certain modern ideas of progress. We will see that this is especially relevant to Gerber Bicecci’s work.

The oracle is now available online at lamaquinadistopica.xyz. Of its three indicators, the first input foregrounds the centrality of the idea of future that is anticipated in the title of the work. It is also the input that generates the first of the two visual components of the oracle by reproducing Felguérez and Sasson’s machine-generated images: the further we go into the future, the larger the number of figures that will be generated. The second input controls the levels of pollution and includes a randomly assigned image of polluted water from a Zacatecan mine: the larger the pollution, the more the colors in the original image mutate. The last indicator substitutes human labor and is determined by the number of nouns to be substituted in phrases taken from Amparo Dávila’s complete poetry. The new nouns belong to corporate, labor, and environmental vocabulary and is carried out by an algorithm. As we can see, the first decision we need to make is how far into the future we want to look, the second one pertains to degrees of pollution, and the third one revolves around labor.

If one of the defining gestures of the avant-gardes was not the production of works but the creation of devices that would make way for their creation, Felguérez and his machine can be seen as heirs to this tradition; this time with the aid of artificial

intelligence.¹³⁸ Gerber's project mimics Felguérez's in that she defines parameters that will create the output: she writes the rules and the product only comes as a result of the spectator's interaction. The difference between Felguérez's machine and hers is that while the former created an output through parameters that were determined and manipulated by the artist alone, the latter proposes an interactive platform whereby the user is given the ability to play with the parameters, try different outputs, and even save the results. The output is randomized in such a way that it is never the same even if the input is.

The title describes the project in a transparent manner: it is a machine-based oracle that projects dystopian futures. More specifically, it *calculates* said future, highlighting the machinic nature of the operation at play. What the web oracle seems to be telling us is that the future is uncertain, yet it is calculable; to understand this, we first need to consider the relationship between computing and futurity, for machines allow for a form of legibility of the future: they have turned divination into futurology. Essentially, the two work in the same way; they use information available in the present to make predictions of what the future will look like and thereby producing a forecast that is readable.

The ready-made nature of the oracle resignifies corporate and environmental language by putting it into a new light: “Gimen las plutónicas en las aguas residuales del registro mercantil” or “Un auditor ambiental sin voz picotea las tiendas

¹³⁸ It would not be farfetched to think about some of the methods created by Dadaist and surrealist artists as early forms of algorithmic writing.

departamentales”¹³⁹ are some of the outputs that are produced. When we click on “Calcular,” a mechanic sound mixed with that of water running announces that the machine is calculating the result of the operation. Clicking on “Guardar” allows the user to save the current output to a .png file.

Anticipating the Future

According to Franco “Bifo” Berardi, the twentieth century was “the century that trusted in the future” (2011 17) and he identifies Marinetti’s Futurist Manifesto of 1909 as its onset and calls it its “the cultural and ideological inauguration”. Most of the first part of the century is defined by a utopian vision that, he argues, was overturned in the last three decades and replaced by a “dystopian imagination:” a postfuturist mood based on the idea that the future will not be better than the present. In the same text, Bifo adds that “[t]he rise of the myth of the future is rooted in modern capitalism, in the experience of expansion of the economy and knowledge” (18). The discovery of the New World was instrumental in the development of this imagination, since it broadened the horizons of the world and provided new grounds for the expansion of capital and, in many ways, the Americas have embodied this idea of “novelty” and the promise of future better than any other place. Utopianism has been an essential part of Western modernity, which began with the discovery and colonization of the Americas. As Juan Pro explains, “[g]eographical discovery and voyages of exploration provided a powerful stimulus for thinking about how many alternative ways of organizing society and distributing power were potentially

¹³⁹ “Plutonics groan in the wastewater of the commercial register” and “A voiceless environmental auditor pecks at department stores.”

available” (1-2). What he leaves out is the fact that the exploration of new frontiers and the accumulation of wealth made possible by the colonial order imposed upon the New World provided the grounds for believing in an ever-brighter future. It was the intensive extraction of resources from Latin American lands is what allowed the incipient European nations their massive economic growth following the conquest of the Americas.¹⁴⁰ These utopian dreams shaped Latin America not only in terms of imaginations, but also the topography of its towns and cities and the programmatic documents of conquest.

The revolutions of the late XVIII century in the United States and France meant that the future would no longer be predetermined, it would no longer simply be a continuation of the present and the past, but “a blank slate that nations and peoples could fill with their own decisions and struggles” (Pro 3). That is, the future was suddenly opened up to seemingly infinite possibility of collective dreams. In this direction, Bifo understands “future” as a set of cultural expectations that were “fabricated during the long period of modern civilization, reaching a peak in the years after the Second World War” (18), a moment when the modern dream of progress met a set of technologies that made it predictable in a way that it took a form of presence. Jenny Andersson (2018) summarizes the uses of prediction at the turn of the century: “predictive experimentation after 1945 turned the future into a manageable and rationalized entity” (2-3). It is in these years that the kind of prediction pioneered by

¹⁴⁰ The indispensable supply of precious metals would henceforth support the formation and expansion of the financial and commercial system of the capitalist world. Colonial America would provide the currency, the seed of progress and the basis of civilization. This would allow Europe to access the products of China, finance labor supply expeditions to Africa and sustain the complex web of slavery on which the British industrial revolution was mounted. And, of course, to finance the development of the naval war industry to make 'the survival and extension of civilization a reality (Machado Aráoz).

cybernetics begins to be translated to other disciplines: “It is the prospect of modeling and forecasting (and thus valorizing) social behavior that drives the desire for a universally applicable cybernetics, and this prospect must be seen as grounded in the idealization of the universal digital computer” (Franklin 44). Different forms of modeling and forecasting became the norm in economics, and social sciences, among many other fields. But not only this, they have become pervasive to the point where one could say that digital calculative devices are progressively shaping, transforming, and governing all areas of our life.

This conception of the future as being subjected to knowing and planning has been called “the regime of anticipation:” “[o]ne of the defining qualities of our current moment is its peculiar management of time, or what might be called a politics of temporality” (Adams et. al. 246). The authors define it as being characterized by “a shift from regimes of truth to regimes in which anticipation is formed through modes of prediction and instrumentality” (*ibid.* 260).¹⁴¹ It is a conception of the future that aims to render it legible and manageable, to take out of the realm of the unknown and break it down into possible outcomes. As such, under our current episteme, it is “always knowable in new ways, even as the grasping for certainty about it remains persistent” (*ibid.* 247). For these authors, anticipation as a regime has permeated key

¹⁴¹ They define its inception as follows: “It emerges at a moment of actuarial saturation, when one realizes that the sciences of the actual can be abandoned or ignored to be replaced by a knowledge that the truth about the future can be known by way of the speculative forecast, itself relying on proliferating modes of prediction. Speculative forecast, in turn, has been loosened from the virtue of certainty and redirected as an injunction to characterize and inhabit degrees and kinds of uncertainty – adjusting ourselves to routinized likelihoods, hedged bets and probable outcomes. Preparedness is infinitesimally possible and infinitely malleable when one has a good working model of an anticipated ‘future.’ As much as speculative finance has become both a dominant mode of capital accumulation, spawning its own material and discursive effects of disaster prediction, anticipation has become a common, lived affect-state of daily life, shaping regimes of self, health and spirituality.” (Adams et. al. 247).

aspects of our economies and forms of socialization (from biomedicine to food production and security) even extending into and incorporating the unanticipated or unexpected, defusing its disruptive potential.¹⁴²

Simulations and predictions are key components of said regime, which “relies on and is legible in software and software development practices” (McKenzie 392), and one of its principal incarnations is machine learning, a practice present in social media, finance, security, natural, clinical, and engineering sciences and it the umbrella term of “digital humanities.” Once the future became knowable, divination gave way to anticipation. However, I will argue here that Gerber’s work is a defense of unexpected forms of community that give way to the imagination of a different future, one that is not contained within the regime of anticipation.¹⁴³

In Latin America, for a good part of the last two centuries the future was the realm of promise, a fertile land for utopian dreams: “what is the history of Latin America but a chronicle of the utopian impulse?” (Beauchesne and Santos 1) and “Latin America has served variously as a terrain for the conception, planning, or implementation of utopias at varying historical moments” (Brunnegger 127). If utopian literature is concerned with the creation of an idyllic community, Gerber’s writing points to a reconfiguration of said community, allowing an emergence of a plurality of voices. Rather than the promise of a future, its point of departure is the

¹⁴² The regime of anticipation still “Within a regime of anticipation, the unanticipated or unexpected can, on the one hand, offer new territories for expanding anticipations and, on the other hand, may open up tactics for contestation or new forms of curiosity” (*ibid.* 250).

¹⁴³ The Uncertain Commons shows the full extent of its impact: “We live in a world shaped by practices of speculation, from probabilistic sciences (risk analysis, predictive genomics) and anticipatory techniques (financial arbitrage, technological forecasting) to forward-looking institutions (the Intergovernmental Panel on Climate Change, the World Health Organization). More and more, it seems, the future is imported into the present, bundled up, sold off, instrumentalized.” (8)

assumption that the future is already here and, as such, the only way of reimagining the future is through a communal rearrangement of the present.

The turn of the century and the so-called “end of history” coincided with the expansion of neoliberalism throughout Latin America and the landscape of promise and utopia soon turned into one of ruins and dystopia.¹⁴⁴ One can see this in the emergence of narratives that have been analyzed elsewhere and one can find examples of these in the works of Aira, Bellatin, and even Roberto Bolaño for reference. For instance, Aira’s *La villa* (1998) explores the shanty town—the counterpart of the modern dream of the city—as a space of both deadliness and vitality. Bellatin’s *Salón de belleza* (1994) imagines a community of care around a beauty salon where people sick from a deadly disease go to die. Bolaño’s *2666* (2004) includes, among others, a denunciation of the deadly consequences of globalized capitalism in a long section on the assassination of women in Ciudad Juárez. As we will see later, *La compañía* cannot be understood without reference to the failed promises of development and modernization that the exploitation of mercury was supposed to bring to Nuevo Mercurio. A promise that turned into plundering and later replacing the extracted minerals with life-threatening hazardous waste.

Visualization: Words and Images

At the same time, different forms of data visualization are key ways in which predictive models become legible. In the age of big data, the vast amounts of information created, stored, and processed greatly exceeds our cognitive capabilities,

¹⁴⁴ It should be noted that utopian aspirations still survive into the XXI century, some examples of it being the Zapatista movement in Mexico and the so-called “pink tide” and its contestation of the neoliberal order that was dominating the continent around the turn of the century.

which is why data visualization has become such a pervasive tool to make sense of them.¹⁴⁵ However, as Matthias Leese points out, this rendering is never innocent, he adds: “the translation from the algorithmic environment back into the realm of human-readability creates a large set of questions that address issues of how we perceive the world and how we make sense of it” (Leese 143). As we will see, Gerber’s work is acutely aware of the importance of visualization in today’s media ecology.

Throughout her work, Gerber shows a particular interest in the interaction between word and image: out of her full body of work, there is no example where image and word do not coexist. She is not only interested in using these two media but, in doing so, she often proposes reflections on how these two interact. A good example of this is *Las palabras y las imágenes* (2018), where she rewrites a text under the same name by René Magritte from 1929 and where we read: “La relación imagen-texto es ineludible. En realidad, no hay diferencia entre una y otro, solo un problema llamado logocentrismo”¹⁴⁶ (no page number) and “[e]l logocentrismo tiende a hacernos creer que las imágenes no piensan.” Even when we live in a society where the abundance of images is the norm (or precisely because of it), these do not receive the same attention nor have the same status as words do.

Aside from her artistic interventions, she has other work that is of a more “academic” nature, such as a co-authored chapter in García Canclini’s edited volume

¹⁴⁵ As Katherine Hayles shows, visualization plays an important role in large scale data legibility: “As scale grows exponentially larger, visualization tools become increasingly necessary. Machine queries frequently yield masses of information that are incomprehensible when presented as tables or databases of results. Visualization helps sort the information and make patterns visible. Once the patterns can be discerned, the work of interpretation can begin” (2012 33).

¹⁴⁶ “The image-text relationship is inescapable. Actually, there is no difference between one and the other, just a problem called logocentrism” and “logocentrism tends to make us believe that images do not think.”

where she reflects on how literacy today needs to be understood not only in relation to text but should also take images into account. She claims that we are not living in the era of the image but in a “calligrammatic era,” where the internet is the most complex calligram in existence (2018). It could be said that, in her view, language today is an amalgamation of text and image and these cannot be conceived of separately. She further explores her calligrammatic writing in *Conjunto vacío* (2016) that heavily features diagrams inspired by Venn diagrams and language that borrows from set theory. As we will see, in the works studied here the interaction of image and writing is more directly linked to forms of re-appropriation and rewriting in forms of “noncreative” writing.

To return to *La máquina distópica*, it plays with the black box perception when creating its forecasts: as readers, we understand the outcome, but we are blind to the process that renders it. Even when it is partially explained, some of the elements of the oracle remain obscure, such as the sources for the noun replacements; but the process is mostly made explicit. It also brings into play an element that is at the heart of computing, such as their predictive capacity. At the same time, it provides an interesting juxtaposition: we see images of actual ruins and the lasting effects of a mismanaged industry, but they let themselves to be read as a prediction of a future landscape. The addition of Felguérez’s futuristic designs also taps into this.

The introduction of the machine brings together divination, forecasting, and speculative fiction. As an oracle, it is a tool for predicting the future that extends beyond the lifetime of the user (2699) and it is readable as a message open for interpretation. It has an element of forecasting that indicates levels of pollution

ostensibly based on parameters of growth. Finally, it works as another element within a universe that blurs the lines between speculative fiction and nonfiction. It points to a future without humans, where life looks distinctly different from what we know it to be. It also points to an erosion of poetic language, that becomes permeated by other languages of a more technical nature and where language becomes a repetition of machine-generated clichés. In addition to this, the last parameter references the substitution of human labor with machine labor, and an increasing presence of machines in the not-so-distance future; as we will see in the graphic novel, where the housemaid is replaced by a machine in an operation that mirrors the one carried out by *La máquina distópica* in that it is, at its core, a replacement of nouns in a line from Amparo Dávila's poetry. This is an algorithmic replacement that lets the user/reader manipulate the parameter that sets the degree of replacement; that is, the number of nouns.

As we said, it combines the artist's interest in the interaction between text and image with the interactive affordability of web applications, together with a critique of the regime of anticipation and its obsession with data visualization. She adds a playful twist to it by making it an oracle where science and superstition overlap, pointing to the shortcomings in both and proposing an alternative that we will call "cautionary speculation." It is by showing the shortcomings of calculation that Gerber proposes speculation as an alternative, pointing to the idea that we need to think about the possibility of futures that are "more than a mere extension of the present" (Wilkie et. al. 2).

As the authors point out, practices in the regime of anticipation often “become factors in the constitution of a yet-to-come, a not-yet that (...) too often strives to coincide with the ‘already’ on which it is based” (*ibid.* 4). In other words, they suffer from an acute lack of imagination that prevents them from posing a future that is other than a duplication or perpetuation of the present. Quite differently, Gerber’s critique of these forms of reading and projecting the future falls in line with forms of imagining and telling stories about the future that are of a speculative nature, which we will define as “a struggle against probabilities” (Stengers 2010).

The basis for these predictive models is that the future is a projection of the past, they rely on that past information to try to forecast what the future will look like. However, many of those parameters and databases are becoming obsolete: several phenomena of the present such as climate change are disrupting patterns to such an extent that large amounts of data available from the past is becoming unusable: “[the present] has come unhinged from linear temporality, that diverges in crucial yet confusing ways from the very idea of history itself. Nothing is clear anymore, nor can it be. What has changed is not the dimensionality of the future, but its predictability,” (Bridle 72) some of the patterns disrupted by climate change include long-term weather trends, fish spawning and migration, plant pollination, monsoon and tide cycles, and the occurrence of ‘extreme’ weather events, Bridle concludes that “Civilisation itself depends on such accurate forecasting, and yet our ability to maintain it is falling away as ecosystems begin to break down and hundred-year storms batter us repeatedly” (*ibid.*). This is where algorithms come in, since they rely “much less on past historical data and bell curves in order to extrapolate probable

futures, and instead operate by making multiple associations and correlations among contingent and mutable events” (Wilkie et. al. 5-6). It is apparent that a nonlinear understanding of time has become urgent.¹⁴⁷ As Gumbrecht argues, the problem is not exactly that the past has stopped serving as a form of orientation, but that “pasts flood our present” (xiii), and electronic memory systems play a crucial role in this process. We are caught between pasts that engulf us and a menacing future that has turned the present into a “dimension of expanding simultaneities” (*ibid.*).

In addition to this, predictability presupposes a linear understanding of time, “along a modern arrow of progress, such that the present conditions upon which calculation are drawn will be conserved in the future state which calculative inferences are supposed to provide information about.” (Wilkie et. al. 4). As we will see, this linear understanding of time does not coincide with Gerber’s temporality which juxtaposes different times creating an anachronism of sorts. As we have seen with other artists in the preceding chapters, she makes distant and recent past meet the future, in an understanding of time that could not be farther from linear.

Gerber’s answer to this idea of future is one of speculation. By looking at both objects analyzed here, one could say that the web oracle acknowledges both the existence of patterns and the possibility of their perpetuation into the future. However, and more importantly, *La compañía* introduces the unexpected as the opening up of the future to the multiple possibilities whose actualization can never fully be

¹⁴⁷ Manuel de Landa explains the interaction between nonlinearity and digitality: “The equations scientists use to model nonlinear processes cannot be solved by hand, but demand the use of computers. More technically, unlike linear equations (the type most prevalent in science), nonlinear ones are very difficult to solve analytically, and demand the use of detailed numerical simulations carried out with the help of digital machines.” (17).

anticipated: the potentiality of an overturning, of the coexistence of a plurality of worlds.

If the real catastrophe is the lack of parameters to measure and understand the world to come, this means that we need new tools to do so. I say this because one of the changes brought about by the Anthropocene is its unpredictability—models of predictability based on relative stable patterns are becoming increasingly obsolete. As Dalby points out, in the Anthropocene “[t]here is no stable environment that can be protected or secured,” but only “different pathways into what will be different futures, each with pitfalls and difficulties” (16). If the world to come keeps showing how it is unpredictable, then said unpredictability should be embraced. Gerber’s speculative fiction could be a glimpse in that direction: the reconfiguration, in the present, of an idea of commonality is her answer to it. Unlike a utopian future, a world that fits many worlds.

3.2. La compañía

As we have said, part “a” of *La compañía* (the graphic novel) was first part of Gerber’s *La máquina distópica* at the Biennial as a photographic installation. Its book edition reproduces all the photographs from the installation in order and without page numbers. The object we analyze here is the print edition of *La compañía* published by Almadía in 2019. In the Appendix to the book, Verónica Gerber describes her intervention on Amparo Dávila’s short story as follows: “La reescritura consistió en sustituir a los personajes ‘el huésped’ y ‘Guadalupe’ por ‘Compañía’ y ‘máquina’,

cambiar el tiempo verbal del texto a futuro y la voz narrativa a segunda persona” (193).¹⁴⁸ Here are the first lines of both texts for comparison:

Nunca olvidarás el día en que vino a vivir contigo. Tu marido traerá a la Compañía al regreso de un viaje. Llevarás entonces cerca de tres años de vaticinios, tendrás dos niños y no serás feliz (Gerber 12-13).
Nunca olvidaré el día en que vino a vivir con nosotros. Mi marido lo trajo al regreso de un viaje. Llevábamos entonces cerca de tres años de matrimonio, teníamos dos niños y yo no era feliz (Dávila).¹⁴⁹

Dávila’s story is narrated in the first person from the perspective of a housewife whose husband brings a “huésped” into the house where she lives with her two children and Guadalupe (the housemaid) and her son Martín. The introduction of the foreign element further stresses the previous tension between husband and wife. The latter will end up killing the “huésped” when the former is out of town on a business trip; upon his return he is welcomed to the news of its unexpected death. Critics have characterized it as a horror story (Fuentes; Evangelista Ávila, et. al.) that stems from a situation of anxiety, Lovecraftian horror (Evangelista Ávila et. al.), and how the ambiguity of the title character contributes to this horror (Fuentes), a trait that is extended to the rest of her work (Cota Torres and Vallejos Ramírez). As Yu-Ji Seong describes, her work had gone relatively forgotten and started receiving new attention after the publication of Cristina Rivera Garza’s *La cresta de Ilión* (2002),

¹⁴⁸ “The rewriting consisted of replacing the characters ‘the guest’ and ‘Guadalupe’ with ‘Company’ and ‘machine’, changing the verb tense of the text to the future and the narrative voice to the second person.”

¹⁴⁹ “You will never forget the day he came to live with you. Your husband will bring the Company back from a trip. Then you will have about three years of predictions, you will have two children and you will not be happy” (Gerber) and “I will never forget the day he came to live with us. My husband brought it back from a trip. We had been married for about three years at the time, we had two children and I was not happy” (Dávila).

where Amparo Dávila appears as a character, evidenced by the publication of her *Cuentos reunidos* by Fondo de Cultura Económica in 2009.

In Gerber's story, the use of the future tense follows the temporal orientation already present in the web oracle. The story acquires a prophetic tone, one that is reinforced by the passage from first to second person: it reads as an oracle to the reader who is addressed directly. The change of perspective means that we no longer read a story about someone else with whom we can identify in various degrees, but it is our own story yet to take place. As such, it is a continuation of the web oracle and actualizes it on a more personal level: if the oracle was the anticipation of the future of our world, this anticipates our own future, it speaks to us directly. Given the nature of the events described, it reads as a form of warning: this could happen to you, this could be you or—even better—this will be you in the future unless something changes in the present that reshapes this future. It is effective because it speaks to all those communities that are currently suffering from the effects of extractivist projects or where plans for them are in discussion. What happened at Nuevo Mercurio is still happening in countless other places and it will keep happening until other forms of interactions with nonhuman actors are put in practice. In that sense, like any other dystopia, it also speaks to the present. After all, dystopias are future projections based on the present: they are the results of reading patterns in the present and assuming that, if nothing changes, the future is bound to be grimmer. As such, they participate fully in the anticipatory regime.

Rewriting

As mentioned, Amparo Dávila's story is effective precisely because of its vagueness: the “huésped” has few attributes, we mostly know about the reactions it produces. This vagueness has led some critics (Evangelista Ávila et. al.) to question its very existence and suggested that it is part of the narrator's imagination, a product of her anxiety related to her abusive relationship with her husband; as described in the first lines of the story it is the husband that brings the guest into the house and her complaints are met with total indifference. In Gerber's rewriting, the vagueness is preserved in the fact that she does not add anything to Dávila's story in terms of adjectives or descriptions, her operation is strictly one of substitution. As such, the horror of Dávila's story survives relatively intact in the rewriting since the extraneous presence and unpredictable nature of “el huésped” in one case and “la Compañía” in the other are the source of the uncertainty and induce the horror.

The fact that Gerber adds the graphic element, however, does bring other levels of legibility and makes the story more circumscribed. The guest becoming “la Compañía” keeps some of the ambiguity while also gesturing towards the idea that this is a mining company that has come to a remote location and now the locals need to learn how to live with it. The name itself “Compañía” is as polysemic as its English counterpart: it means both the act of keeping someone company or a person who keeps someone else company and a commercial business. As such, in its first assumption it implies two entities at comparable levels of hierarchy, while in its second meaning there is a hierarchical imbalance at play. One does not need to read deeply into the story to understand that the kind of company at stake here is more of the latter than the

former. This is reinforced by the capitalized spelling of “Compañía” which means it is part of a name for a company. Once we begin to see how this actor behaves, we can start reading it as a metaphor for the company as a whole.

The intrusion establishes a form of cohabitation that disrupts the community of care created by the narrator and forces a new form of being-with: “Representarás para la Compañía algo así como un mueble que se acostumbra uno a ver en determinado sitio, pero que no causa la menor impresión” (14).¹⁵⁰ There is an imbalance in the reactions this new living arrangement elicits: the presence of “la Compañía” is highly disruptive but it is completely indifferent to others. As evidenced later, “la Compañía” will bring different forms of suffering to everyone in the household except for the husband: “Todos —tus niños, la máquina que te ayuda en los quehaceres, su hijito— sentirán pavor de la Compañía. Sólo tu marido gozará teniéndola allí” (21).¹⁵¹ The gender divide becomes palpable in this response to the external intrusion: the husband reveals his condition of outsider when siding with the company that he brought into the house; meanwhile the women and children form the community of care that is disrupted.¹⁵² I will argue that Gerber’s multivocal narration of in the second part of the book can be read as an alternative mode of production that questions the centrality of the author as a producer in favor of an incorporation of other “minor” voices. As we shall see, the disruption of the community of care constituted by the household gives

¹⁵⁰ “You will represent for the Company something like a piece of furniture that one gets used to seeing in a certain place, but that does not make the slightest impression.”

¹⁵¹ “Everyone — your children, the machine that helps you with your chores, its little boy — will be terrified of the Company. Only your husband will enjoy having it there.”

¹⁵² This is what allows for an ecofeminist reading of the rewritten story: one that equates a destructive approach to the environment with a patriarchal society. While acknowledging this is an interesting angle of approach, it is not the goal of the present chapter to discuss it.

way to a different form of community that emerges through the incorporation of a plurality of voices that put conventional ideas of authorship into question.

The previous passage also introduces a new character that has been substituted from Dávila's story: la máquina. It has replaced a woman—Guadalupe—as the helping hand around the house, which speaks to the form of labor replacement and the increasing presence of technology as part of everyday life.¹⁵³ At the same time, it hints towards the possibility of forms of solidarity between woman and machine as a human/nonhuman alliance. There are numerous instances and levels of machine presence both in form and in content: *La máquina distópica*, the character in the story “la máquina,” and the machine-generated designs from Felguérez’s *La máquina estética* that appear in both. At the same time, the replacement process used to rewrite and resignify Amparo Dávila’s short story resembles an algorithm. The kind of rewriting that Gerber carries out in both of the project analyzed here is very specific in nature: it is neither a mere repetition in a different context nor an interpretation, but an algorithmic replacement of nouns and verb subject and tense. These formal and rhetorical devices should not be overlooked when considering the work’s intervention and commentary on its time: the machine’s agency is recognized as an actor as any other as well as an instrument in the creative process. Aside from machines, the text also engages with a number of other-than-human elements: minerals, toxic agents, asteroids, and even “duendes.”

La compañía shares some features with Schweblin’s *Distancia de rescate* in that they both are visiting post-extractivist landscapes from their home countries and

¹⁵³ Let us remember here that one of the parameters of the web oracle was the replacement of human labor.

reimagining ways of writing them. While in Schweblin the issue is how the ongoing activity of the soybean industry puts the health of a whole ecosystem at risk, in Gerber it is the aftermath of the mining industry. They also share the fact that their narratives are (at least partly) framed by maternity: in both cases the stories are told from the perspective of the mother, there is an external threat that puts pressure on the mother's ability to protect her children. Furthermore, in both cases motherhood is a gendered role, and the only form of kinship and fathers are only notorious for their absence and they can be read as horror stories with varying degrees of realism: they fictionalize real threats. There are also important differences in the levels of intervention of male figures: while in Schweblin they are effectively absent and only mentioned in passing, in Gerber's story the father is the one that introduces the threat, making him an actively negative character.

As analyzed in chapter one, in *Distancia de rescate* the narration takes the form of a dialogue between the narrator (the mother) and David (the sick child). Gerber, on the other hand, puts us as readers in the role of the mother rhetorically speaking, we read the story as the mother, thus making us protagonists. I would like to focus here on two particular aspects of motherhood that stand out: the idea of care/protection of the vulnerable child that could be extended to the larger community, and the sense of the child as the inhabitant of the world to come.

The very existence of “la Compañía” is threatening, for it comes uninvited to a place where it does not belong. Its name suggests as belonging to the realm of the public but, as the graphic novels shows, it enters the domestic realm from the very offset and, in so doing, blurs the division between the two. At the beginning it stays in

a room of the house, but it soon makes its way further into other spaces: “Cuando salga de su cuarto comenzará la pesadilla” (39).¹⁵⁴ Even if it poses a threat from the beginning, the fact that it moves out of a space of relative containment makes the threat even more real. It slowly begins invading other parts of the house and can no longer be localized. The fact that it feeds on water is also relevant: “Toda su alimentación se reducirá a agua, no probará nada más” (46).¹⁵⁵ As we will see later in the book, this is noteworthy because the mining industry is known to use massive amounts of water. In the second part of the book, we read that water was brought from Cañitas, over 100km from Nuevo Mercurio: “[El agua] se traía de Cañitas [en los] carros-tanque del ferrocarril hasta la estación de Opal, a 24 km [de la mina]. De Opal a Nuevo Mercurio se llevaba en camiones-pipa” (111).¹⁵⁶ The uneven growth brought about by the booming industry made it such that getting water was harder than getting a glass of beer. This is only heightened by the semi-arid climate of the area that makes the lack of water palpable after the mining industry has abandoned the area: “La gente se brincaba la cerca, tiraba el contenido de los tambos ahí mismo y se los llevaba para juntar agua” (171).¹⁵⁷ As we have seen, images of polluted water from the mine “El Bote” were one of the three components of *La máquina distópica*, which, on its dedicated website is featured with its full title: *La máquina distópica: el agua*. Today, after the boom and bust of the mercury, water is still scarce in the region (106).

¹⁵⁴ “When it leaves its room the nightmare will begin.”

¹⁵⁵ “All its diet will be reduced to water, it will not taste anything else.”

¹⁵⁶ “[The water] was brought from Cañitas [in the] railroad tank cars to the Opal station, 24 km [from the mine]. From Opal to Nuevo Mercurio it was carried in pipe trucks.”

¹⁵⁷ “People jumped over the fence, threw the contents of the drums right there and took them away to collect water.”

At large, the story blurs the line between the private and public spheres or it reveals how those lines are already blurred: human/nonhuman, human/machine, private/public, male/female, organic/inorganic; these are some of the categories that the story brings into question. The domestic space is invaded by the threatening presence of “la Compañía,” which means it is no longer a safe space (if it ever was). If the relationship with the husband was already far from ideal before this major change, matters will get much worse after this. The door to the room where the unwelcome guest stays in will remain opened by orders of the husband, who would otherwise become suspicious; meaning that her private space was already vulnerable and she did not have full agency over it. Her house is no longer safe for her children: “No podrás dejarlos solos, sabiendo que la Compañía se habrá levantado o estará por hacerlo” (46).¹⁵⁸ When reading the second part of the book, we learn more about how the metaphorical threat posed by “la Compañía” is actualized.

The end of part a. means the disappearance of “la Compañía.” Rather than posing a dichotomy between machine and human, the world of Gerber’s graphic novel is one where these two cohabit and collaborate to the point where they even show forms of solidarity. They conform a domestic alliance that culminates in the defeat of the threat.

Images

From the very first page of the photonovel, the story is localized with the inclusion of a road sign reading “Nuevo Mercurio.” This geographical anchoring is

¹⁵⁸ “You will not be able to leave them alone, knowing that the Company will have risen or is about to do so.”

only amplified in the second part of the book ("b."), where everything that was vague in the first part becomes named, localized, explained, and expanded on through a vast combination of languages. The images can be grouped into three groups according to their origin, but this is only clear from a visual point of view with Elizabeth del Angel's photos of stones found in the mines around Nuevo Mercurio that are presented against a black background. As for the rest, Gerber and Vega Carrillo's are similarly overexposed and in black and white, the difference being that the latter include a series of barrels of polychlorinated biphenyls and ash, and they were taken in 1986.

The images show landscapes of post-industrial ruins, they offer a look into an abandoned territory victim of the enclave economy that has come to define the mining industry. Some of the photographs are in narrative continuity with the story and almost function as an illustration; for instance, the first pages juxtapose the introduction of the story with image of roads taken from a car, resembling the beginning of a road trip before arrive to the destination. For the most part, however, they function in parallel and have little to no narrative function. Something that stands out is the absence of humans in the photos. What we can see are landscapes and objects that speak to a past human presence: abandoned mines and buildings, industrial equipment, protective goggles; all fill the photographs that due to their over exposition only let us distinguish shapes and textures.

Another element present in many of the photographs are the designs from Manuel Felguérez's *La máquina estética*. As we have said, this echoes the machine presence at the level of the narrative by adding a visual element that was also present

in the web oracle. These designs consist of combinations of pure abstract forms that in their juxtaposition project a sense of future that echoes that of the text. These visual embodiments of the machine also provide a direct link between the text and the images, they are the clearest manifestation of the continuity between both levels. I say this because every time “la máquina” is mentioned in a passage, we can see one of Felguérez’s designs on the image in the background. It could even be said to be a visual representation of the machine in the text.

It should be noted that the visual artist’s authorship is already somewhat complex: he produced the “original” designs, but one might ask how “original” the most basic geometrical figures can be. He then co-wrote with engineer Mayer Sasson the algorithm that made the “aesthetic decisions” to produce the output. What we could call “authorship” functions at two levels: first, there is the input of the designs that are taken from Felguérez’s previous work, and second, the coding of the program that will produce the output. Said output is then randomly generated drawing form the instructions the machine is given; this process is mimicked by *La máquina distópica*, which uses different parameters and adds a textual component. In both cases, the artist inputs data that gets combined to produce the output. The one thing that changes significantly is the user/reader’s input: whereas one is able to interact with the web oracle by setting its parameters, the designs included in the graphic novel are already there and remain unaltered. The cohabitation with the machine is thus present on the level of the story being told, the mechanism by which said story is told, and through the visual element of the abstract figures.

Fragmentary Writing

The second part of the book (b.) was not part of the installation and, as such, is unique to the book edition. It is made up of 100 fragments of texts and diagrams (and a few photographs) taken from almost 30 different sources. Among these sources are conversations with miners, journalists, scholars and scientists; environmental science, mining engineering, and chemistry theses; government, NGO, and academic reports; scholarly literature; and a few online articles. The main source in terms of the number of fragments (18) is a short story titled “José Largo” written by José Luis Martínez P. and dedicated to his daughter who published it in a home-made edition as an homage to him. As we can see, the author’s role is not that of producing the text as much as it is one of curating it: she carried out the interviews that are fragmentarily reproduced and carried out an extensive research. Her intervention differs from the first part in that instead of taking a whole original text from one author, directly modifying it and adding (new and preexisting) visual elements; in the second part she does not intervene the sources directly but rather selects the fragments to be included and arranges them in a certain order. The result is a hybrid text not only in terms of the different registers it compiles but also in how it reads: when put in a new context, the fragments read as a blend of fiction and nonfiction, blurring the lines between the two. Her few interventions involve editing some of the passages to make them more readable.

The narrative tone is set by the fragments of “José Largo” that follow a sequential order and are interspersed throughout. This story also provides some form of underlying structure to an otherwise unstructured assortment of texts. It tells the

story of its title character who accidentally discovers mercury in the form of cinnabar in a mountain near his workplace and then gets rich by leading explorers to the site for its exploitation. Arrangements are swiftly made to privatize and start the exploitation which brings rapid growth in infrastructure and labor; it also brings death, threats to public safety, and pulmonary diseases that at first only affect the miners. The latter are the result of inhaling mercury and other toxic particles, one of the consequences of acute mercury intoxication being brain damage. Further contamination ensues: “Llegó el rumor de que habían depositado desechos nucleares en Nuevo Mercurio” (144),¹⁵⁹ and eventually the health problems disseminate among the rest of the population, ultimately leading to the definitive closing of the mine in the 80s due to health concerns.

An inspection dated July 15, 1980 found the presence and storage of polychlorated byphenils and “alcohol de verduras,” among others. It is suggested that using the mines as storage was a source of revenue to make up for the stagnating mineral exploitation. The PBCs have both immediate and accumulated effects on the air, soil, and living beings: they damage reproductive systems and stunt plant growth, as well as being a cause for cancer. They are very chemically stable and resilient and can only be decomposed in an oven above 6000 degrees celsius: “más caliente que la cromosfera del sol” (165). At some point, the PBCs barrels were gathered and burned, producing an unsettling sight: “La ceniza se veía como nieve, era un polvo fino muy blanco. Decían que con la lluvia, o cuando había mucho viento, el polvito entraba a

¹⁵⁹ “The rumor came that they had deposited nuclear waste in Nuevo Mercurio.”

sus casas y les empezaba a doler la cabeza” (170).¹⁶⁰ To this day there are still many barrels in the mines, one source says about 3000, a long-term problem that “ojalá no lo veamos nosotros” (177);¹⁶¹ a few of these are portrayed in the photographs in part a. The declining industry and health issues lead to a drastic exodus whereby Nuevo Mercurio lost 95% of its population after the 1980s, but some people refused to leave their village.

Strange things happened in the mines, one testimony from the nephew of an engineer that worked there says the following: “Decían que en las minas [de Nuevo Mercurio] había duendes. Duendes verdes chiquitos (...) Yo creo que ellos ya estaban muy intoxicados y empezaron a ver cosas” (175).¹⁶² This source suggests that these are visions induced by intoxication with any of the aforementioned contaminating agents. Like in *Distancia de rescate*, the post-extractive landscape is one where horror meets fantasy and where the world works according to a different logic, where the rules by which we are used to understanding the world no longer apply and we need a new framework to try to grasp and explain it.

The notes at the end of the book reveal that only an extensive research process made it possible. This included interviews and bibliographic research both online and in physical archives, bringing the artist’s work closer to that of a researcher. This amalgamation of sources that Gerber uses in part “b.” and her overall artistic approach are not innocent choices but tell us about her particular understanding of the role of the

¹⁶⁰ “The ash looked like snow, it was a very white fine powder. They said that with the rain, or when there was a lot of wind, the dust entered their houses and began to hurt their heads.”

¹⁶¹ “I hope we don’t see it.”

¹⁶² “They said that in the mines [of Nuevo Mercurio] there were goblins. Little green goblins (...) I think they were already very intoxicated and began to see things.”

artist in relation to regimes of visibility and circulation of information in the present. The position she assumes resembles that of Eyal Weizman and his *Forensic Architecture* collective. In a 2013 interview, Weizman describes the role of the artist as one that develops ways of seeing and conceptualizing the data existing in the public domain. Weizman and Gerber share a context where the amount of information available is excessive, and where old forms of making visible no longer apply. In this sense, the task of the artist does not (only) entail revealing that which remains hidden, but it acquires other complexities: “to reveal what is invisible but also collect and analyze what is already in the public domain—visible but not seen, or seen and not well understood” (Weizman 73). We should highlight here a crucial distinction: the difference between what is *visible* and what is *seen*, and how these two often do not coincide. One could therefore talk about levels of visibility and how the fact that some things are visible to some degree does not mean they are part of the public discourse.

In his discussion around visibility, Weizman refers to Rancière’s work on what the latter calls “regimes of visibility” and reads his definitions on politics and aesthetics as a reorganization of that which is in sight but remains unseen.¹⁶³ Weizman sheds light on the fact that –against a common misinterpretation of the French philosopher’s work–, the question resides not (or not as much) in revealing something that has been deliberately hidden, but in turning noise into sound; two concepts that are heavily featured in Rancière’s work. As such, the task of the artist is one of selection: clearing

¹⁶³ I quote Rancière at length: “The distribution of the sensible reveals who can have a share in what is common to the community based on what they do and on the time and space in which this activity is performed. Having a particular ‘occupation’ thereby determines the ability or inability to take charge of what is common to the community; it defines what is visible or not in a common space, endowed with a common language, etc.” (2004 12-13). He adds that aesthetics is “is a delimitation of spaces and times, of the visible and the invisible, of speech and noise, that simultaneously determines the place and the stakes of politics as a form of experience.” (ibid. 13).

out the noise that prevents us from hearing so that what remains is a sound that can be heard as such.

Legibility

As anticipated, this regime of visibility and the availability of information it provides are closely linked to the era of the internet which, as a super-archive, makes data readily available but poses other challenges in terms of its legibility: availability does not equate accessibility and certainly not legibility. A good part of the information Gerber uses is already freely available in the public domain, but the importance of her intervention consists in compiling it and giving it a frame of legibility: creating a constellation around an issue that then becomes legible. It is by putting these fragments side-by-side and giving them a certain order that they acquire a new frame of legibility. In other words, they can be read under a new light once they are part of a narrative.

Even if most of the book is composed of fragments from sources that are readily available, one should not disregard the fact that parts of the it do reside in others that are more difficult to access. Among these sources, some key information is made available through interviews that the artist carried out herself with experts, locals, and former mining employees. Aside from this, there are also instances where it could be argued that there has been a deliberate effort to conceal information, as one of the fragments shows: “La remediación se circunscribió a confinar, a poner letreros.

Aterraron todo. A la mexicana” (179).¹⁶⁴ As we can see, even when it is not the main feature of this regime of visibility, there are still forms of concealment and respective unveiling, but these are a clear minority. All in all, the issue with aftermath of the mining industry in Nuevo Mercurio (as well as the rest of Zacatecas) and the devastating environmental and health problems it has caused is not that this issue is not *visible*, but that it is not *seen*, it is not in the public discourse and its real consequences are not understood enough. The artist’s role here is to articulate these narratives and bring them into the public discourse: first through her installation at the FEMSA Biennial, and later repurposed as an online application and a book, Gerber’s work gives them a new frame of legibility.

Gerber designs a trajectory through Nuevo Mercurio and the last lines of the book can be read as a metaphor for how the book itself can function as a way of framing and understanding the issues it presents. An issue, that Weizman would describe as “visible but not seen”—it is Gerber’s framing that makes it seen. In a fragment on the topology of the mines and its distribution in tunnels, we read: “El que no sabe se pierde ahí adentro” (190). The minerals and the history of their exploitation are a web of tunnels, texts, stories, and anecdotes where we can get easily lost. *La compañía* outlines a map that allows us to navigate through them, connecting the different stories and making sense of them. This method mirrors the experience of a virtual navigator drifting through an ocean of information and guiding us through the process or, at least, showing possible navigation routes. As Nicolas Bourriaud has pointed out, the central problematic in contemporary art is “organizing multiplicity,”

¹⁶⁴ “The remediation was limited to confining, to putting up signs. They terrified everything. The Mexican way.”

and he describes our world as one where “relations outweigh objects, branches points, and passages presence; paths prove more significant than the stations along the way” (47). In this context, the artist is the one providing those paths and making relations between objects.

At the same time, a different perception of time becomes of relevance: “beyond the ‘pure presence’ and momentariness that distinguish the modernist work as world-unto-itself, contemporary art postulates multiple temporalities—a representation of time evoking the constellation” (*ibid.*). Bourriaud explains that constellations are heterochronic by definition, since the stars that comprise them—even if they are associated by their proximity are often lightyears apart. What brings them together is the very act of grouping them, which then gives way to telling stories about them. As said, both these characteristics can be found in Gerber’s work, as it combines several disparate temporalities, and it privileges the path over the stations: what matters is not each individual fragment but the constellation they form as a whole.

Bourriaud sees a proliferation of constellations in the present and ascribes the phenomenon to “modes of reading and mental displacement brought about by the internet” (48). He adds that “[i]n a sociocultural context marked by super-production and infinite archiving, the trajectory - as a lived experience offered to the public - has come to constitute an artistic form in its own right” (*ibid.*). According to the author, Aby Warburg’s *Atlas Mnemosyne* has only become legible in the present because it coincides with the dominant virtual matrix of our time where webs, maps, graphs, diagrams, and constellations flourish because they all share a reticular structure. Later in *The Exform*, he devotes some lines to a philosopher for whom the concept of

constellation was a central part of his thought: Walter Benjamin. In Bourriaud's words, "Benjamin associated the constellation with a general concept of history's 'legibility' (*Lesbarkeit*): it relates to divination, the ancient science of prophetic interpretation" (52); a form of reading that consisted in connecting different temporalities to get to an image in the form of an inverted prediction, a prophecy turned to the past. This form of reading is what Bourriaud calls "asterochronic" because it makes connections between elements that are heterogenous in time and space. He closes his section with a reference to Carlo Ginzburg and his evidential method to compare it with divination: "[b]ut while divination 'analyze[s] footprints, stars, feces, sputum, corneas, pulsations, snow-covered fields, or cigarette ashes' in order to predict the future, the evidential method examines the same in order to reconstruct the past" (53). That is why we say that the evidential method is a form of divination aimed at the past.

To go back to Gerber, her method combines elements belonging to different discourses. The constellation brings together not only diverse materials but stories that at first seem disparate but gain cohesion once they are put in relation to one another. Even more relevant is her incorporation of the future and its writing. Following Ginzburg, we could pose that Gerber turns to a key moment that articulates divination and interpretation of "venatic clues:" "there were great similarities in the learning process between the two; the intellectual operations involved –analyses, comparisons, classifications– were formally identical. Only formally, to be sure; the social context was totally different." (103-104). As a matter of fact, Ginzburg claims that the

invention of writing in Mesopotamia shaped divination to a good extent.¹⁶⁵ In some way, reading in the digital age goes back to this divinatory aspiration. Gerber turns to this form of reading to show how it had never disappeared in the first place; her resort to dystopian narratives is a testimony to that. In addition, she reconciles different forms of understanding the future: in the first place, the web oracle as a devise for reading the future is an ironic play on the regime of anticipation, in the second place, the use of future time in part a. of *La compañía* combines oracular language with dystopian elements, and third, the constellation in part b. allows for a legibility of the present and, as I will argue in the next section, speculate about a different future.

The kind of speculation we can find in Gerber's work is closer to divination understood as a form of dreaming the future, that is, "to let the present be formed by the futures of the past, to allow the present to be affected by what could have been yet never was and might one day still be" (Uncertain Commons 10) than it is to a solidifying of the possibilities of the future.¹⁶⁶ Gerber's speculation is one that embraces uncertainty and remains open to the unforeseen; it recognizes that potentiality and that a future can only be dreamt collectively or, in other word, "to refuse a single "globality," a totalizing image of the world we live together, and to speculate instead on multiple globalities that arise from manifold lived realities" (16).

¹⁶⁵ "The identification of soothsaying with the deciphering of divine characters inscribed in reality was reinforced by the pictorial features of cuneiform writing: like divination, it too designated one thing through another" (Ginzburg 104).

¹⁶⁶ This is what Uncertain Commons calls "firmative speculation," which "firm the uncertain future, enclosing us within a relatively secure horizon—a firmament, as it were, seemingly fixed over the earth. The experts tell us of stable forecasts and well-established pathways. We note that such predictable futures of token acknowledgments, perfunctory adjustments, and administrative reforms will simply metastasize the present, keeping things more or less as they are" (13).

An open-endedness that refuses the foreclosure of potentialities and remains open to multiple futures “whose context of actualization can never be fully anticipated” (13).

Web

The writing we find in *La compañía* resembles what Cristina Rivera Garza has called “necroescrituras,” where authorship understood as a productive function is radically displaced from the role of the writer to that of the reader. It is reading as a creative motor that is central in Verónica Gerber’s work: the act of reading is no longer in the background, but it is brought to the foreground. As readers we witness the opening of the process of production of the text we are reading, it is a text that reveals the fabric that it is made of. As Rivera Garza explains about rewriting: “Cuando un autor decide utilizar alguna estrategia de apropiación —excavación o tachadura o copiado— algo queda claro y en primer plano: la función de la lectura en el proceso de elaboración del texto mismo” (65).¹⁶⁷ Revealing its fabric means that the process of its production is made common as a productive and relational practice: “[l]a lectura queda al descubierto aquí no como el consumo pasivo de un cliente o de un público (...) sino como una práctica productiva y relacional, es decir, como un asunto del estar-con-otro que es la base de toda práctica de comunidad” (65-66).¹⁶⁸ Reading as an activity that no longer epitomizes the modern subject in its individuality but as a

¹⁶⁷ “When an author decides to use some appropriation strategy —excavation or erasure or copying— something becomes clear and in the foreground: the role of reading in the process of preparing the text itself.”

¹⁶⁸ “Reading is revealed here not as the passive consumption of a client or an audience (...) but as a productive and relational practice, that is, as a matter of being-with-another that is the basis of all community practice.”

practice of community.¹⁶⁹ It is this being-with-an-other or being-in-common, this opening up to forms of community that will make way for the emergence of a different future.

What comes into question here is the association of authorship with property over the text in what Rivera Garza calls an act of “disappropriation” (*desapropiación*), which differs from appropriation in that it does not entail taking possession of something that belongs to another, but a dispossession of what is one’s own. This forms a common writing that reveals the collective work of the many and attend to the logics of mutual care and the practices of the common good “que retan la naturalidad y la aparente inmanencia de los lenguajes del capitalismo globalizado.” (18-19).¹⁷⁰ In this process, the relationship to the other is resignified since it is not a means for giving them a voice or putting oneself in their shoes, but it involves “prácticas de escritura que traen a esos zapatos y esos otros a la materialidad de un texto que es, en este sentido, siempre un texto fraguado relationalmente, es decir, en comunidad” (20).¹⁷¹

She says that dispossession subverts the conventional uses of archival material and that the extended and daily use of copy-pasting has turned authors into “textual curators” for whom the distinction between narrator and author or respect for verisimilitude have little to do with the effectiveness of their creative process or their

¹⁶⁹ This is how Walter Benjamin imagines reading prior to the novel: “A man listening to a story is in the company of the storyteller; even a man reading one shares this companionship. The reader of a novel, however, is isolated, more so than any other reader. (For even the reader of a poem is ready to utter the words, for the benefit of the listener.) In this solitude of his, the reader of a novel seizes upon his material more jealously than anyone else. He is ready to make it completely his own, to devour it, as it were.” (2007 100)

¹⁷⁰ “That challenge the naturalness and apparent immanence of the languages of globalized capitalism.”

¹⁷¹ “Writing practices that bring those shoes and those others to the materiality of a text that is, in this sense, always a relationally forged text, that is, in community.”

resulting work (Rivera Garza 33). The selection takes precedence as a creative process in and of itself.¹⁷²

In Gerber's case, this is replaced by a communal writing, a form of plural authorship. Her writing in common goes even further than that proclaimed by Rivera Garza in that her idea of community expands beyond the borders between the human and nonhuman through an incorporation of the technological and mineral nonhuman. This form of writing allows for fitting different ways of understanding the world in one: a writing of the pluriverse.

In these, the fundamental method consists in doing exactly what Rivera Garza is claiming her *necroescrituras* do not: giving voice to an *other*, either directly or indirectly. She insists on the fact that she is not interested in writings that carry out a “paternalistic” gesture of giving voice to an *other* nor the naive position of putting oneself in someone else’s shoes. As highlighted above, she has in mind writing practices that are forged in community. It should be noted that –in writing these lines, – Rivera Garza has in mind different form of political literature that have flourished in Latin America over the past two centuries: *indigenismo*, the social novel, testimonial literature, among others.

I would like to focus briefly on the last one, which is also temporally the closest to the present. Given its attention to testimonies, truth commissions, and interviews, Weizman (Bois et. al. 2016) has called the last third of the twentieth

¹⁷² Another example of this kind of work is Gerber's *En el ojo de Bambi* (2020), a “curatorial short story” whereby she assembles a narrative around the works comprising La Caixa art collection. In this work, she uses works by other artists that are part of the archive to tell a new story where she “explores the effects of human and environmental catastrophe on landscape and language” (from her website).

century the “era of the witness.”¹⁷³ In this context, if testimonial literature was defined as “an authentic narrative, told by a witness who is moved to narrate by the urgency of a situation (e.g., war, oppression, revolution, etc.). Emphasizing popular oral discourse, the witness portrays his or her own experience as a representative of a collective memory and identity. Truth is summoned in the cause of denouncing a present situation of exploitation and oppression or exorcising and setting aright official history” (George Yúdice as quoted in Gugelberg and Kerney 4), Gerber’s writing maintains some of these with the significant exception of the claim to authenticity. It is not naïve that Yúdice chooses to foreground authenticity in his definition, for this is the source of testimonial literature’s authority: it is worth reading because it is authentic. In Gerber’s case, authenticity is neither a priority nor a concern, in fact, one could argue that it is completely out of the question: there is no authenticity in rewriting, it is not a scale by which it should be measured.

A second key difference between *La compañía* and testimonial literature is that the plurality of voices that the former incorporates are not in representation of a collective, but each voice stands in for itself alone. Not only is it not engaging in a paternalistic “giving voice to the voiceless,” nor putting itself in the shoes of the other, but instead it is staging those voices in such a way that it reveals the shared character of the story being told. If the logic of representation implies that one subject is there in place of another (or many others), this is not the case for the project we read here where every voice is singular and, as such, is not to be read in place of anything else but itself. I follow here Jean-Luc Nancy’s definition of singularity as “that who does

¹⁷³ This is a concept he takes from Wiewiora, Annette. *The Era of the Witness*, Cornell University Press, 2006.

not take place beyond once, in a single point—outside time, outside space, in conclusion—that which is an exception. Not a particularity that is part of a *genre*, but a unique property that escapes appropriation, an exclusive touch and, as such, is not even taken from a common ground and does not oppose itself to it” (125, my translation). As such, Nuevo Mercurio also exists as a singularity: it represents itself alone.

The montage of voices is a form of resistance to merging the plurality into one and maintaining the multiplicity. It is by acknowledging and sustaining the plurality of worlds that the text resists the violence of making those converge into one. It should be underlined that these worlds emerge as a resistance to threats to their existence by the destruction caused by extractivism: “Against the ontological occupation and destruction of worlds effected by the globalization project (...) the importance of thinking from, and within, those configurations of life that, while partially connected with the globalizing worlds, are not fully occupied by them” (Escobar 67).

The fragmentary and web structure also has the advantage of reflecting the threatening structure that it is denouncing. In Peter van Wyck’s words: “The rise of contemporary technological practices brings correspondingly more complex accident scenarios (...) It is that chains of causality are not like webs of implication. From the point of view of large social-political assemblages, we may still draw a causal line, but the series becomes cumbersome and implausible” (xx). I would like to underline here the opposition between linear causality and “webs of implication” mentioned by Van Wyck and put at work by Gerber: revealing that the ecological catastrophe does not correspond to a linear structure, which is why the means by which it becomes legible

necessarily cannot adopt such form. Gerber opts instead for a reticular structure that better reflects both her working method and the nature of the issue at hand. As such, one could say that the form is organic to the content.

In this respect, Gerber's work also diverges from other traditions in political literature such as the ones mentioned above. If we think about the structure of these types of literature and break it down to its most fundamental elements, we will see that they lay out a situation of injustice where there is a clear division between an oppressor and an oppressed. These two factions are embodied by actors and the imbalance of power is such that the reader is compelled to side with the oppressed. As underlined before, a good example of this is the *indigenista* novel where the two sides are the criollos in power and the disenfranchised indigenous people. In Gerber's case, by contrast, the conflict works at multiple scales and involves multiple actors, where reducing it to a straightforward opposition would not account for the dimension and complexity of the problem. What her method does reveal is ways in which these different scales and actors are connected; as such, it is a form of "visualization" in that it makes the threads that make up the web legible. It could be said that her work goes in the direction of proposing new forms of literacy, in this case, one that we could call "systemic literacy" whereby the functioning of systems becomes legible.

Extraterrestrial Zacatecas

The most original aspect about the environmental awareness that can be found in *La compañía* is that which is less obviously so. I say this without intention of dismissing the urgent health concerns for the living beings in and around the Nuevo

Mercurio mining system, this is not the issue I would like to raise here, for Gerber's book does so more effectively than I ever could. What interests me here is how the text points to redefining what we understand as "environment." As Olson and Messerie have point out, the discourse around the Anthropocene presses downward and "its cosmos is terrestrial" (35).

As proposed by Marisol de la Cadena and Mario Blaser, extractivism is how the Anthropocene makes itself present in Latin America. The scale of human intervention in the context of extractive industries is the reason for this statement and some examples they cite are the removal of mountains through different forms of surface mining, the damming of large bodies of water and rerouting of rivers either for irrigation or energy generation, and the transformation of rain forests into palm oil plantation and that of cattle grasslands into lands for industrialized agriculture. In Nuevo Mercurio, extractivism adopts the form of an enclave economy that renders the local population expendable. From Gerber's most recent work (*Otro día... (poemas sintéticos)* [2017], and *En el ojo de Bambi* [2020] in addition to the two other works analyzed here), one can gather that she is interested in exploring matters of scale both in space and in time. It is the former that the last section of this chapter is occupied with; where I propose to think about Nuevo Mercurio as an interplanetary borderland, as a place that makes it evident that we need to think about the Anthropocene beyond the Earth, and the Earth in its interactions with extraterrestrial forces. As such, I hold that *La compañía* points to the need for rethinking what boundaries and environments are, and how we define them.

The launch of Sputnik into outer space in October of 1957 opened a two-way channel of interaction between our planet and outer space. Ever since, a steady growth in space activity has meant that there are currently nearly 20,000 artificial objects orbiting our planet (*Orbital Debris Quarterly*). After space exploration, the idea of the Earth as an enclosed environment no longer became viable (if it ever was). Considering only over 2,000 of those objects are active satellites, the rest is space junk that occasionally reenters the atmosphere. This has led some scholars to talk about a new geological layer circling our planet (Parikka), while others have argued that outer space deserves attention as a natural force in human history (Rand). In addition to this, there is a prevalent understanding of the Anthropocene that is “overdetermined by anthropic relations with inner environment and underdetermined by anthropic relations with outer environment” (Olson and Messerie 29). Considering these points, I will argue that the Anthropocene should not be understood in isolation from outer space, not only because “[t]he Sun, Moon, and electromagnetic environment shape and drive the climate of the Earth” (Gorman 90), but because of the human ecological footprint on them. As Clark (2005) argues, terrestrial and extraterrestrial processes are inevitably intertwined, and this is something that Gerber’s work grapples with.

While examining the immediate environmental effects of the mining industry and its aftermaths, *La compañía* traces the recent and deep history of meteorite impacts in the Nuevo Mercurio area. The first instance of this is an inclusion of a map of the state of Zacatecas indicating the location of the impacts. The map shows that the higher concentration of these is in the northeast of the state, where Nuevo Mercurio is located.

Images in the book are often coupled with text on the opposite page, and such is the case of the map, which is preceded by a passage from a conversation between the author and Bernardo del Hoyo, a chronicler and meteorite collector, where he underlines that Nuevo Mercurio is emplaced on a meteoric impact, and the extracted mercury is of meteoric origin. His testimony links the recent history of resource extraction with the deep time of cosmic activity that shaped our planet.

There are two other mentions of meteorite impact in the book. The second one pertains to the last impact the region has seen:

Fall: 15th December 1978.

Early in the evening, a bolide visible over a radius of at least 200 km exploded with thunderous detonations over north-central Mexico, scattering meteorites over an elliptical area more than 10 km in length just north of the village of Nuevo Mercurio (140).

The layout of the passage reminds of a journal entry, carefully recording time, place, and nature of the events. Its tone differs significantly from the testimony of a former miner, who describes the moment of entry and impact in a later fragment: “Como que se quemaba arriba, había una bolota de lumbre. Sí, en el cielo. Fue todavía temprano. De repente como que explotó. Se oyó. Empezaron a verse luces por todos lados” (143).¹⁷⁴ The miner also describes how the impact attracted interest from the scientific community and how the locals were prevented from visiting the sites of interest: “Primero no querían que agarráramos ni una piedra ni nada. Hasta que ellos terminaran de estudiarla” (143).¹⁷⁵

¹⁷⁴ “As if it burned above, there was a ball of fire. Yes, in the sky. It was still early. Suddenly it kind of exploded. It was heard. Lights began to be seen everywhere.”

¹⁷⁵ “First they didn't want us to grab a rock or anything. Until they finished studying it.”

After the discovery of mercury deposits in the 1930s and the beginning of its exploitation in the following decade, Nuevo Mercurio became “the most productive mercury district in Mexico, and one of the most productive in the Western Hemisphere” (105). During World War II “Mercury was one of the seven original metals designated as strategic” (119), and “virtually all of Mexico’s mercury output [was] exported.” (*ibid.*). Tied to international demand, its price sank after the war and again in 1962. Nuevo Mercurio finds itself at a nodal point where transnational actors and interests come directly in play and define key aspects of its (under)development over time. The locals never see any benefits from the abundance except for a handful of landowners and government officials: all the industry brings to the region is fleeting employment, uneven development, and the long-lasting health problems that are a consequence of both the mercury itself and the toxic waste that replaces it once it has been extracted. Given that the mercury found in the area is of meteoric origin, one could say that the outermost exterior (the extraterrestrial) is a constitutive mineral part of the local environment, showing that the alien and the local are already intertwined.

If the debates around the Anthropocene have brought about discussions around the boundaries between the human and nonhuman, nature and culture, the humanities and sciences, among others, those separating the terrestrial from the extraterrestrial have not been among them. The Earth seems to be the firm and unquestionable grounding of the Anthropocene, a concept that is being deployed “in ways that privilege downward, inward, and spherically enclosed terra- and anthropocentric understandings of what counts as environment” (Olson and Messerie 29). I contend here that Gerber’s project destabilizes this by turning her point of view outward, and

she does so in a twofold manner: outside of the planet and outside the modern subject. I say this because of how the narrative is laid out, which takes the concept of “polyphony” (Bakhtin) to a whole different level. She incorporates a plurality of voices and fades her own away, thereby adopting a role that is closer to that of a curator than that of an author. In an almost ethnographic exercise, she listens to the protagonists and it is these other voices that tell the story; Gerber’s intervention is repurposed to her research and to creating a path for the reader to follow. In the first part of the book, her role is similarly diverted from an author to that of a rewriter. In so doing, she does not appropriate the others’ voices but gives them a new context and legibility. By having her own voice disappear into the background, a form of plural authorship emerges that decenters the modern subject as a subject of authority, replacing it with a method that allows the emergence of the common.

One can read Gerber’s work as part of a larger “planetary turn” in contemporary Latin American that signals to a combination of recuperating atavistic and novel forms of engaging outer space and its outer environment as a crucial part of the cosmos. I am thinking here of some of the examples outlined throughout this dissertation, which grapple with entanglements of deep time, personal and collective memory, and space research. Through Gerber’s work, the planetary scale encounters outer space, blurring the distinction between inner and outer environment. If read as a narrative of the end of the world, Gerber’s end of the world marks the beginning of the planetary.

CHAPTER 4

THE DATABASE AT THE END OF THE WORLD

This final chapter is concerned with two novels by the Chilean-Argentine-American writer Mike Wilson: *Leñador* (2013) and *Ártico: una lista* (2017).¹⁷⁶ The list and the database are forms of questioning linearity and blurring the boundaries between description and narration. Both novels provide fertile ground to think about the proliferation of list and listing technologies in the present and how these relate to, on the one hand, other forms of reading such as dendrochronology and the obsolescence of a genre like the almanac and, on the other hand, lists as a form of archiving in an epoch of mass extinction. The two texts analyzed here imagine different forms of survival of reading and writing at the end of the world: ones that call to recognize nonhuman forms of inscription, a different ethics in relation to nonhuman actors, and paradoxes of writing in a dying world.

4.1. *Leñador*

If XIX century narrative fiction was built on the basis of the representation of readers and the act of reading, and in the following century this representation turns

¹⁷⁶ It is hard to ascribe Wilson to one particular national literature; born in the U.S., he grew up between Argentina, Chile, and Paraguay, has published with multinational presses (Alfaguara) and more recently in smaller independent ones in Chile (Orjikh) and Argentina (Fiordo). Depending on the speaker, he is either classified as Chilean by Chileans or as Argentine by those on the other side of the Andes. He has expressed no interest in these debates: “Sí, bueno, mi mamá es argentina y también me crié en Argentina, pero me da lo mismo, no me preocupa el asunto del lugar donde se me clasifique. Me pueden decir escritor gringo, chileno, argentino, da igual. Lo que menos me importa es posicionarme en algún mundillo literario” (Wilson and Plaza 252) (“Yes, well, my mother is Argentine and I also grew up in Argentina, but I don't care, I don't worry about where I am classified. You can call me a gringo, Chilean, Argentine writer, it doesn't matter. The least I care about is positioning myself in some literary world.”)

into doubt about the social and individual value of reading (Catelli 2001), in the present “[h]uman agency is no longer exceptional, as it is overwhelmed by nonhuman and technological forms of writing” (Vermeulen 28). That is, the present is marked by the dispute of human exceptionality in relation to the processes of inscription, writing, and reading. It is not only that many of the tasks related to literary production have been co-opted by algorithms, but they have also become increasingly suitable for reading cultural information.¹⁷⁷ At the same time, environmental transformations that are occurring on a planetary scale only become readable with the assistance of highly sophisticated technological devices.¹⁷⁸

What happens then is the appearance of new forms of reading that in the field of contemporary narrative are registered as a radical expansion of the reading experience. In contemporary literature, these transformations are manifested, on the one hand, in a radical expansion of the reading experience and, on the other, in the adoption of writing models that expand the limits of the book as a medium. As for the reading scenes in particular, they no longer conjure up the defined images of previous centuries, but instead face forms of illegibility and consequent (re)discoveries of other forms of reading, both new and old (reading of the stars, divination, web scraping, data mining, among others). In Mike Wilson’s *Leñador* (2013), a former boxer and

¹⁷⁷ I quote Finn: “As algorithms become more adept at reading cultural data and performing real-time arbitrage (used here in the sense of financial pricing arbitrage but also cultural arbitrage as described in the previous chapter), they are taking on new forms of intellectual labor. They are authoring and creating, but they are also simplifying and abstracting, creating an interface layer between consumers and the messy process of, say, getting a cab or hiring a housekeeper” (12). Added to this, reading a book, listening to music, doing research and learning — these are all activities that are increasingly governed by algorithmic logics, leading James Bridle to affirm that culture is a space / code. (39). As he states: “The act of writing, of generating information, becomes part of a mesh of data and data generation, read as well as written by machines” (124).

¹⁷⁸ I follow Vermeulen here: “Registering changes to our lifeworld requires increased capacities to read, for which we mostly depend on technological and computational aides” (27).

war veteran leaves his native Chile to settle in the forests of the Yukon, swapping one corner of the continent for another. There he is received by a small community of loggers and begins his process of integration into his new world. This process takes the form of a meticulous and encyclopedic description of the objects he finds in this world. In the midst of the exhaustive descriptions, reading experiences unknown to the protagonist and on which we will focus here are highlighted: these include dendrochronology (reading the growth rings of trees), an agricultural almanac, and reading the environment through its signs.

The first part of this chapter will examine the scenes of reading present in the novel (Piglia 2005) to understand, on the one hand, the relationship between reading and world creation and, on the other, the role of nonhuman agencies in articulating the place of reading in a post-natural and post-hermeneutical world.¹⁷⁹ If we understand reading as a tool for creating the world and for orientation, here we will propose that it is through the reading of nonhuman actors and the database as a way that the novel proposes an ecological reading concomitant with a way of being in the world.

As said, *Leñador* features a narrator fleeing an archipelago in the Southern Cone in search of a new life as a lumberjack in the Yukon forests: he describes his experiences in war and the ring as failures from which he is fleeing. That flight takes him from one end of the continent to the opposite: from the deep south to the vicinity of the Arctic Circle. There he is welcomed by a group of lumberjacks who hands him

¹⁷⁹ Erich Hörl conceives the post-hermeneutic era as a destruction and displacement of a culture of sense through technology: “These object cultures, with which we are intimately coupled, are truly techno-logical, in an eminent sense of the term, and they ultimately unhinge the sovereignty and authority of the transcendental subject. The latter was a writing and reading, an alphabetized, a grammaticalized subject in the strictest sense, and later a cinematographic subject, but in each case it was a subject that integrated and embodied the media-technological conditions underlying its production of experience and meaning” (3).

an ax, in an initiation rite that will start his way to become one of them. The ax is one of a long list of objects that make up his new world. “Aprendí cosas” (11)¹⁸⁰ exclaims the narrator in the last sentence before the first entry in the book entitled “Hacha.” The series of entries of an almost exclusively descriptive nature makes it such that the book reads as a kind of encyclopedia or inventory whose elements are connected with another series of narrative fragments that, in parallel, are snapshots of the daily life of the protagonist. Said entries are diverse in nature and include tools (ax, hammer, chopper, chisel), clothing (boots, coat), animals (bear, fox, beaver, squirrel), minerals (basalt, olivine), activities (woodcut, taxidermy, trepanation, hunting, climbing), food (honey, stew), among many others. Like any encyclopedia or reference book, these entries reference each other and when a term that has its own entry is mentioned elsewhere, this is indicated, which highlights its hypertextual nature and invites a non-linear reading that defies the novel’s conventional linearity. In turn, the entries are generally organized around thematic nuclei: for example, “death” is followed by “coffin” and “burial.”

The idea of being on the edge of the world is evident from the very title of the novel: *Leñador o las ruinas continentales*. The novel is a way of rediscovering a new sense of the world for someone whose world is in ruins. Here we will propose that this new sense of the world becomes possible through the discovery and execution of different forms of reading. At the same time, as Alejandra Laera (2019) has pointed out in a recent article, this new sense of the world is accompanied by a new sense of

¹⁸⁰ “I learned things.”

temporality. In our reading, both correspond to each other, and we will add that they coincide with a new way of life and relationship with reading.

As described in chapter 2, some contemporary narratives offer a radical expansion of the space-time scale. We can think of cases like Guzmán's documentary or Patricio Pron's short story as two examples of radical expansion of the narrative scale that include the deep time of the planet and the visible universe. The operation of Wilson's novel follows an inverse logic: instead of expanding the time scale to incorporate nonhuman temporalities, in *Leñador* time is compressed almost to a standstill. The only event with narrative weight occurs on the first page when the narrator's decision to leave his previous life behind to settle in the forests of Yukon is described. In this sense, after that moment the novel abandons all pretense of events to adopt an almost purely descriptive position, where the possibility of the event is subject to its description and the nature of things: its being in the world prevails over any form of action. This radical downscaling or "infinitesimal interstices," as Vermeulen calls them, has as much disruptive impact on the human scale as invocations of cosmic vastness (98).

The reencounter with the world is carried out, narratively, through a meticulous description of the narrator's environment. In other words, the new world that he finds is defined by its objects. In the words of Sandra Contreras, this allows him to find "una forma pre-reflexiva apta para hacer emerger la certidumbre de las cosas" (15).¹⁸¹ The return to the objects of the world is a way of dividing it, classifying it and organizing it in order to look at it more closely and describe it in all its details.

¹⁸¹ "A pre-reflexive form that is apt to bring out the certainty of things."

In this gesture we find echoes of at least two antecedents: travel literature and, as we said, encyclopedias or reference manuals or instructions. From the former, *Leñador* takes the trip to an exotic and unknown destination, where writing is a way of bridging the distance between the reader and said destination. From the latter, it takes its structure, the hypertextual form, the descriptive language, and the division into categories. The key difference is, as we will see, that the relationship with the world is not one of contemplation of the landscape, but rather seeks to go beyond the subject/object relationship with the environment. In this sense, it distances itself from the landscape form and moves towards a horizontal being-in-the-world.¹⁸²

A Database in Search of a Narrative

The hyperlink as a way of organizing and having access to texts typical of the internet differs, according to Lev Manovich, from other modes of linking such as the interpretations and footnotes present in the Torah in that the relationship between elements is not subject to a hierarchy: “The two sources connected through a hyperlink have equal weight; neither one dominates the other” (76). It could be said that it is precisely this sense of equivalence or absence of hierarchy that leads to other modes of interaction with this type of text. More than a large library or a giant book, Manovich proposes to think of the new media culture as an infinite flat surface where individual texts are placed in no particular order (77). He closes this idea by listing a series of

¹⁸² As described by Rodríguez, the landscape was a form adept for synthesizing and organizing experience: “La composición de paisajes fue para Humboldt una herramienta de síntesis totalizante por medio de la cual recoger en un orden de simultaneidades las series temporales abiertas en medio de las que se había movido el viajero” (45) (“The composition of landscapes was for Humboldt a tool of totalizing synthesis by means of which to collect in an order of simultaneities the open time series in the middle of which the traveler had moved.”)

phenomena that have contributed to this “spatialization,” particularly from computation: the replacement of sequential organization by random access memory (RAM) and the psychological movement of storytelling in novels by physical movement in the video game space. These have led to time becoming a flat image or landscape, something to be seen or navigated through (78). This is where Manovich reaches an early conclusion that we are interested in rescuing because it is a redefinition of the experience of reading in the era of hypertext; the hypertext reader is like Robinson Crusoe: “walking across the sand, picking up a navigation journal, a rotten fruit, an instrument whose purpose he does not know; leaving imprints that, like computer hyperlinks, follow from one found object to another” (*ibid.*). This is how the world of *Leñador* is presented to the reader: a flat surface full of objects that the narrator finds and arranges them in a similar geometry.¹⁸³ This sense of spatiality is consistent with a temporality that was already detailed by Alejandra Laera as a “detención del tiempo [que] es su descomposición en partículas mínimas, ya que la narración se ve demorada permanentemente por la descripción y la explicación” (146).¹⁸⁴

The form the novel takes from the outset is that of a database of the new world. As Manovich points out: “Many new media objects do not tell stories [...] Instead,

¹⁸³ To explain the conception of the novel, Wilson has said: “Creo que surgió de un impulso personal que reaccionaba en contra de lo que yo sentía era el agotamiento de mi escritura. Sentía en ese momento que narrar no me entregaba nada. Quería huir de narrativas inevitablemente paródicas, y a la vez recuperar sentido, encontrar certezas a través de la escritura, y dejar el lenguaje por medio del lenguaje” (2017) (“I believe that it arose from a personal impulse that reacted against what I felt was the exhaustion of my writing. I felt at that moment that narrating did not give me anything. I wanted to flee from inevitably parodic narratives, and at the same time regain meaning, find certainties through writing, and leave language through language.”)

¹⁸⁴ “A stoppage of time [that] is its decomposition into minimal particles, since the narrative is permanently delayed by description and explanation.”

they are collections of individual items, with every item possessing the same significance as any other" (218) and reaches the point of calling the databases "a new way to structure our experience of ourselves and of the world" (219) and continues: "if after the death of God (Nietzsche), the end of grand Narratives of Enlightenment (Lyotard), and the arrival of the Web (Tim Berners-Lee), the world appears to us as an endless and unstructured collection of images, texts, and other data records, it is only appropriate that we will be moved to model it as a database" (*ibid.*). This is what I call the world as a flat surface of equivalent elements; in Wilson's novel, there is a correspondence of forms between the database and the world: the latter takes the form of the former. To add to this, Katherine Hayles claims that databases are becoming increasingly important and "[a]lthough narratives will not disappear, their forms and functions are being transformed by the seemingly irresistible force of digital databases" (2012 198).

Manovich seems to suggest that one of the novelties of the database is its non-linearity. However, as John Durham Peters points out, there is nothing inherently new in this, since linearity corresponds to a historically very determined genre such as the novel. Peters seems to suggest that linearity is the exception rather than the rule, as he shows how long before the appearance of the novel and its predilection for linear reading, writing has had a relationship in common with databases since its very invention (Peters 290). In fact, many coded forms of inscription that precede alphabetic writing were modes of computation and management.¹⁸⁵ Reference

¹⁸⁵ Peters cites the invention of writing in Mesopotamia as a response to a need to record both production and time. He then cites as an example late 19th and early 20th century romance novel readers who often read the ending first for purposes of evaluating the novel (290).

literature is a good example of a way that challenges the linear reading—from alpha to omega—of the novel. Peters adds that throughout much of the history of reading, skipping reading has been the norm and linear reading is indeed the exception.¹⁸⁶ This becomes particularly interesting when we think of *Leñador* as a database-coded novel.

In direct contradiction with Manovich's claim that the database and the narrative are natural enemies due to the lack of order in the first and the cause-and-effect logic of the second (225), Wilson's novel is closer to Katherine Hayles's (2012 176) understanding of them as part of a symbiotic relation that benefits both parties. I argue that *Leñador* proposes a conjunction of both by offering a trajectory that links the elements of the database with the narrative arc of the protagonist. If we suppose, with Manovich, that the database represents the world as a list of elements, in *Leñador* this list has as a complement not only a detailed description of its elements, but also intersperses narrative passages that link them to the narrator and his journey for this new world. That is, the novel presents the elements horizontally and connects them through a trajectory. Manovich argues that the database becomes the center of the creative process in the computer age (227), something that is partially true for Wilson's novel since, as we will see, the database sets the formal conditions for the closing of the novel, where narration and description merge.

Structurally, Manovich thinks of the relationship between database and narration in terms of the syntagmatic and paradigmatic relationships defined by Saussure. In his proposal, the database of choices from which the narrative is

¹⁸⁶ It is curious that Peters, to speak of non-linear reading, uses the verb “hopscotching,” alluding to the game that gives the title to Julio Cortázar’s novel that makes the interrogation of linearity his main narrative resource: *Hopscotch*.

constructed (the paradigm) is implicit, while the narrative itself (the phrase) is explicit (231). Manovich will say that the new media invert this relationship since it is the database (the paradigm) that acquires material existence while the narrative (the phrase) dematerializes. And he adds that the paradigm becomes the real while the phrase remains virtual. At the material level, “a narrative is just a set of links; the elements themselves remain stored in the database” (*ibid.*).¹⁸⁷

To explain this conceptualization, the media theorist resorts to the design process of the new media, which begins with the assembly of a database of the possible elements to be used. This database becomes the nodal point of the design process and, as we have said, the narrative is constructed by designing a trajectory between the elements. Being “merely” a set of links, for Manovich the narrative is virtual while the database exists materially. Something similar happens in our novel, where the foreground is occupied by the database and its propensity for description, meanwhile the narrative occupies a secondary plane, although, as we shall see, this relationship is gradually modified and in particular in its sequence of closing. However, despite the interesting questions of linearity that it offers, and due in part to the nature of the medium, the novel continues to offer us a syntagmatic experience. This is important because, in spite of presenting itself as a form of reference literature that would invite a non-linear reading, in order to make sense of it a linear reading is still required and the reader cannot actually hopscotch around between the entries, for the narrative passages interspersed between them follow a linear logic. Given its extension (over five hundred pages) and the slow progression due to the proliferation

¹⁸⁷ Other more extreme examples would be those in which the paradigm is made even more explicit and the user is presented with a menu with the different possible alternatives.

of description, the reading experience it offers is one of deep attention, and it could be said to challenge the temporality of “hyper attention” that is typical of the digital age.¹⁸⁸

To understand the relationship between the two, it is useful to turn to Hayles who builds upon Manovich. As anticipated, she argues that narrative and database complement each other: “Because database can construct relational juxtapositions but is helpless to interpret or explain them, it needs narrative to make its results meaningful. Narrative, for its part, needs database in the computationally intensive culture of the new millennium to enhance its cultural authority and test the generality of its insights” (2012 176). This is important here because it holds true for Wilson’s novel. Even if it has been pushed to the background, without a narrative to breathe life into the database, the text would remain meaningless. My argument here is not only that both *Leñador* and *Ártico* reveal the potentiality of databases to serve as a basis for narrative, but—more importantly—that it is precisely through narrative that they become meaningful. Narratives help us make sense of databases; a crucial point shown by Wilson’s novels.¹⁸⁹

The novel responds to a new sense of the world with an exploration of its generic limits, where the description does not advance the plot, but rather—as Alejandra Laera emphasizes—is made up of full information that emerges from observation. What we have then is a pure form of description that is presented to us as

¹⁸⁸ I take this term from Hayles, she defines it as “a cognitive mode that has a low threshold for boredom, alternates flexibly between different information streams, and prefers a high level of stimulation” (2012 12).

¹⁸⁹ On the necessity of narratives, Hayles writes: “narratives remain the necessary others to database’s ontology, the perspectives that invest the formal logic of database operations with human meanings and gesture toward the unknown hovering beyond the brink of what can be classified and enumerated” (2012 183).

practical but has lost all sense of usefulness. I say this because the type of description that is presented to us is reminiscent of that found in user manuals or reference books.¹⁹⁰ Losing their usefulness, the elements of the novel are a means without and end: things in and for themselves. In the novel, the answer to the question of how to narrate the world of the confines (or the ends of the world) is through a predilection of description over action, as we see in this early example: “*Hacha*. El hacha es la herramienta por excelencia del leñador. Está compuesta de dos piezas; la hoja y el cabo. La hoja es la pieza de acero templado con forma de cuña que se emplea para cortar. El cabo (o mango) es el largo de madera con el que se sujetá y empuña el hacha” (11).¹⁹¹

In the absence of events, it is the nature of things that emerges: what they are made of, how they work, how they interact with other objects, etc. The true event of the novel, then, is the discovery of a new relationship with the world, a disposition towards the environment that is intimately linked to a reformulation of what it means to read and how it is carried out. Almost nothing happens, and if action is the novel's main time indication, we can agree with Laera that the general absence of action implies that time in *Leñador* is approaching its halt. What Laera does not mention, however, is that the deceleration of time produces the illusion of being outside of time that puts space and its flatness at the center of the text. It is the coincidence of both—space and time—that gives rise to a new relationship with the world. *Leñador* has the

¹⁹⁰ Mike Wilson himself acknowledges that his references when conceiving the novel were “libros como manuales, guías, textos no-narrativos de todo tipo, textos obsoletos” (2017) (“books such as manuals, guides, non-narrative texts of all kinds, obsolete texts.”)

¹⁹¹ “Axe. The ax is the lumberjack's tool par excellence. It is made up of two pieces; the blade and the cape. The blade is the wedge-shaped piece of hardened steel used for cutting. The cape (or handle) is the length of wood with which the ax is held and wielded.”

end of the world as its starting point and the novel is a journey to recover the meaning of the world.

The best way to explain the entries in the book is through an example; in this case we will refer to one of the earliest entries: “chisel.” It opens with a brief summary of the usefulness of the tool (removing tree bark) and then explains why this is important (the bark accumulates insects and moisture), which is followed by a technical description of what the tool looks like: “El primer componente es el mango (comúnmente hecho de pino), el segundo es la cuchilla de acero y la tercera pieza es el cono de acople (también de acero) que une el mango a la cuchilla” (23).¹⁹² As the tool is broken down into smaller parts, each of them is described including its dimensions, shape and function of the part, and the function of each of the parts in relation to the whole. Towards the end of each entry the narrator often introduces a contemplation of a more personal nature, an appreciation of his own experience with the object or how it is used by others. In the case of the chisel, the narrator adds: “Mi impresión es que el escoplo es una herramienta de poca trascendencia en la cultura del leñador. No he podido observar tradición alguna relacionada a él” (24).¹⁹³ As we see in this example, the description is not reduced to the material and the use value of the object, but also includes its symbolic value.

As we anticipated, some entries are organized around the same thematic nucleus and such is the case of the chisel, which is followed by two related entries: “Maintenance” and “Use.” As the titles suggest, the first describes how and why the

¹⁹² “The first component is the handle (commonly made of pine), the second is the steel blade, and the third piece is the coupling cone (also made of steel) that attaches the handle to the blade.”

¹⁹³ “My impression is that the chisel is a minor tool in the lumberjack culture. I have not been able to observe any tradition related to it.”

different parts of the tool need maintenance, while the second is a short instruction manual on how to use the tool efficiently and includes the exact positioning of each part of the body of the tool. user to the correct angle of impact on the cortex. Like the first entry in the group, “Maintenance” includes a brief observation of chisel use among loggers: “Lo curioso es que mientras los leñadores no ocultan su desdén por el escoplo, tampoco lo descuidan. Recibe el mismo mantenimiento y rigor que las otras piezas” (25).¹⁹⁴ The narrator is perplexed by the fact that the woodcutters use the chisel when they could use the ax for the same purpose.

Being at the end of the world requires a writing of the confines that is capable of capturing the experience. This idea of the end is embodied in the image of the Northern Lights: “Anoche vi por primera vez la aurora boreal [...] Recuerdo haber pensado que si existía un límite entre el cielo y la tierra, donde todo se acababa, un rincón oscuro del mundo que contenía el horizonte en el verdadero sentido de la palabra, este sería así” (80).¹⁹⁵ The end of the world is the horizon where the terrestrial plane intersects with the celestial: in this case it is condensed in the image of the aurora, which seems to blur the line between both planes. This moment is crucial in the sense that the protagonist for the first time becomes aware of being in the confines.

Scenes of Reading in the New Media Ecology

¹⁹⁴ “The funny thing is that while the loggers do not hide their disdain for the chisel, they do not neglect it either. It receives the same maintenance and rigor as the other parts.”

¹⁹⁵ “Last night I saw the northern lights for the first time [...] I remember thinking that if there was a boundary between heaven and earth, where everything ended, a dark corner of the world that contained the horizon in the true sense of the word, it would be like this.”

Ricardo Piglia sees in the figure of Don Quixote reading even the torn papers that he finds on the street the personification of the modern reader and his material conditions: life in a world made of signs and the condition of living surrounded by printed words. Piglia is interested in a media ecology where the invention of the printing press a century before the publication of the classic Cervantes had meant an unprecedented expansion of reading material. The bulk of the examples analyzed in *El último lector* represent different types of readers: the criminal reader in Borges, Felice as Kafka's reader, the detective (Dupin) as a reader, among others. Even though Piglia insists on the breadth of reading experiences in his example of Don Quixote, of the entire universe of materials the reader he is interested in is very conventional in terms of what he reads: fiction printed in books.

However, as early as 1928 Benjamin pointed out how the heyday of the book was in the past and how the media ecology of his time contrasted with the Renaissance as the historical moment of the invention of the printing press. In “Attested Auditor of Books,” a short piece compiled in *One-Way Street*, Benjamin says that “[n]ow everything indicates that the book in this traditional form is nearing its end” (2016 42). As an example of this, he points to the experiments in typographic arrangement proposed by Mallarmé and inspired by advertisements: a historical moment in which writing leaves the books and becomes vertical in advertising posters, newspapers and the cinema. This supposes, as it could not be otherwise in Benjamin, a change in the experience of reading: “before a contemporary finds his way clear to opening a book, his eyes have been exposed to such a blizzard of changing, colorful, conflicting letters that the chances of his penetrating the archaic stillness of the book are slight” (2016

43). The book becomes one more object in a media ecology in which writing overflows and begins to invade other everyday spaces — thus, it loses the monopoly of the written word.

Further ahead in time, George Steiner [1972] defines book culture in an even more restricted way than Benjamin: it begins at the beginning of the eighteenth century with Montesquieu and finds its peak, again, in Mallarmé towards the end of the nineteenth century. In other words, less than two centuries of a bookish culture that, for Steiner—who calls it “classical reading”—is framed within a series of material conditions and very precise power dynamics: “between the educated and the menial, between the leisured and the exhausted, between space and crowding, between silence and noise, between the sexes and the generations” (189). These power dynamics, Steiner continues, had already eroded in the early 1970s, when the French American critic wrote his essay on the end of the book. He attributes this erosion, on the one hand, to different intensities of light and noise that interrupt the reading space and, on the other, to the competition that the book finds in different devices: television, radio, and the record player.¹⁹⁶ In other words, for Steiner, the book has not only lost the monopoly of the written word, but also that of attention in a broader sense, since it comes into competition with other acoustic and audiovisual languages.¹⁹⁷

¹⁹⁶ Claudia Kozak will say that “la disminución de la visibilidad de la literatura (...) es producto en parte de la consolidación de una cultura audiovisual que, encabalgada a la letra, empuja a la literatura hacia diversas variaciones del silencio” (13) (“the decrease in the visibility of literature (...) is the product in part of the consolidation of an audiovisual culture that, mounted to the letter, pushes literature towards various variations of silence”).

¹⁹⁷ Today, we can read this essay as a prefiguration of what has more recently been called the “economy of attention.” “The technology industry wasn’t designing products; it was designing users. These

Steiner's most interesting statement, however, comes towards the end of his essay when he looks to the future and thinks about the changes that occur in radical but less visible ways in the realm not of the "communication of the material" but of its "storage and analytical treatment" (199). His reasoning is that the storage and retrieval of information in databases and computers is a new way of organizing human knowledge and the relationships between present and past. The section closes with what today can be read as a prophecy: "The 'programming' of knowledge in the electronically-managed libraries of the future will, I think, bring on alterations of sensibility, modifications in our habits of discovery, as significant as any since the invention of moveable type" (200). As we will see, it is this point that most closely touches the novel's procedure: the database as a way of structuring a world and, with it, its story.

In her study of the representation of reading over the last two centuries, Nora Catelli traces a periodization in accordance with the postulates of Benjamin and Steiner. Catelli finds that the nineteenth century narrative fiction is built on the representation of readers and reading (15); a continuation of Steiner's "classical reading" which he sees represented in countless paintings and engravings from the eighteenth century. In her journey through two centuries of narrative, Catelli describes the passage from the celebration of reading to its demonization and subsequent rarefaction to even its disappearance (17). I would like to highlight one historic moment in particular: "A lo largo del siglo XIX la sensibilidad moderna se educó en novelas y cuentos que devolvían a los lectores imágenes satisfactorias—nítidas,

magical, general-purpose systems weren't neutral "tools"; they were purpose-driven navigation systems guiding the lives of flesh-and-blood humans. They were extensions of our attention" (Williams 10).

enfáticas—de los resultados de la educación por los libros; esta devoción se encarnaba en la variadísima representación de la lectura, acto privado y a la vez socialmente valioso” (18-19).¹⁹⁸ She adds next that, in the twentieth century, “[d]e la celebración irrestricta se pasa a la duda acerca del valor individual y social de la lectura [...] Ya no se canta el valor del acceso intelectual a los libros, sino su existencia física” (19).¹⁹⁹ At the beginning of the new millennium, Catelli shows how this erosion of reading that Steiner pointed out is reflected in its representation, of which, in the twentieth century all that is left is “la fantasmagórica evocación de formas menores, degradadas, pobres de la lectura: un copista, una mujer que descifra letras, un analfabeto” (189).²⁰⁰ If this Catelli’s judgement adjusts to the historical moment that it describes, we will say here that, in the present, the representation of reading goes beyond the limits of the literary to incorporate other forms of reading.

In this same direction, Claudia Kozak broadens the universe of the question of reading by remarking that the problem of reading is not only a question of how to read but of what to read. For this, she reviews the modern history of modern literary theory and criticism in terms of its object, which divides it into three stages: first the author, then the text (or context) and finally the reader, an idea she takes from Terry Eagleton. She adds that reading the reader also means reading the act of reading itself and that when we reach this point (late in the twentieth century) we are in a moment of

¹⁹⁸ “Throughout the nineteenth century, modern sensibility was educated in novels and stories that returned to the readers satisfactory images—clear, emphatic—of the results of education through books; This devotion was embodied in the highly varied representation of reading, a private and at the same time socially valuable act.”

¹⁹⁹ “From the unrestricted celebration one passes to the doubt about the individual and social value of reading [...] The value of intellectual access to books is no longer sung, but their physical existence.”

²⁰⁰ “The phantasmagoric evocation of minor, degraded forms, poor of reading: a copyist, a woman who deciphers letters, an illiterate.”

transformation, “cuando la lectura de literatura ha dejado de ser un hecho que demos por sentado” (42).²⁰¹ Of course, this instability raises the question of both the history of reading and the history of the book, and has as its correlate in the fact that the book as an object can no longer be taken for granted. This is when Kozak comes up with what she qualifies as one of the great problems of twentieth century literature: the problem of its limits. Which is what leads her to the concept of a “literatura fuera de sí” or “desaforada,” which she defines as “[una] literatura que, por un lado, ha perdido sus fueros—sus privilegios—en la cultura, debido a que ya nadie le concede el rol de gran organizadora letrada de la sociedad y, por otro lado, se desborda en deseos de letra más allá de sus cabales” (43).²⁰²

Now, while this diagnosis allows Kozak to propose the reading of digital literature as a new expanded critical object, what we are interested in addressing here are the ways in which the representation of reading goes beyond the limits of the literary. In other words, a literature that, aware of having lost its privileges, continues to respect the classic format of the book and, with it, its limits, but incorporates and proposes ways of reading that go beyond its own limits. A literature that conceives of reading as an operation that transcends the textual and that models forms of non-literary readings. In the case of *Leñador*, we see an indeterminacy of the reading that moves towards what Kozak calls “otras zonas de producción material de signos” (*ibid.*).²⁰³ This allows us to consider Mike Wilson’s novel as an example of how in the

²⁰¹ “When reading literature is no longer a given we take for granted.”

²⁰² “A literature that, on the one hand, has lost its privileges in culture, because no one gives it the role of great literate organizer of society and, on the other hand, it overflows with a deranged desire for letter.”

²⁰³ “Other areas of material production of signs.”

present reading and its education cease to return satisfactory images and begin to give way to lesser or poor forms of reading, alternative readings that can create meanings in a context of new opacities.

The Trees

The first reading scene occurs early in the novel and targets the ubiquitous trees of the Yukon boreal forests. Dendrochronology is the name of the art of reading the concentric circles of tree trunks and serves not only to know the exact age of the tree but also as a record of the history of its environment. It is a sample of the being-in-the-world of plants that Emanuele Coccia explains: “Plants embody the most direct and elementary connection that life can establish with the world. The opposite is equally true: the plant is the purest observer when it comes to contemplating the world in its totality (...) their life is an endless cosmic contemplation” (5-6). That is, the plant as a point of view from which to understand the world that surrounds it, which leaves its imprint on its growth rings. In a crucial passage in the novel, the narrator discovers in the tree rings a form of inscription that he calls “the lumberjack’s literature” and the reading of which he describes below: “Leen los siglos, leen el pasado, el clima, el fuego, la sequía, los diluvios, el hielo, la ceniza y la peste. Lo leen todo hasta llegar al último aro, ahí se ven inscritos, hacha en mano, ahí leen la muerte” (27-28).²⁰⁴ In this direction, Coccia says that plants challenge “one of the pillars of the biological and natural sciences of the past few centuries: the priority of the environment over the

²⁰⁴ “They read the centuries, they read the past, the climate, the fire, the drought, the floods, the ice, the ash and the plague. They read everything until they reach the last ring, there they see themselves inscribed, ax in hand, there they read death.”

living, of the world over life, of space over the subject” (10), and adds that plants, in their history and evolution, “demonstrate that living beings produce the space in which they live rather than being forced to adapt to it.” (*ibid.*). It is the first part of this quote in particular that is important here, for the novel’s main procedure is doing away with said priority.

This method also allows reading different speeds: acceleration and deceleration in the growth that marks the seasons: “La velocidad de crecimiento en el cámbium vascular depende de las temporadas de la región en cuestión” (Wilson 28).²⁰⁵ What this reveals is that the lumberjack’s literature renders readable not only the history of the tree in question, but also in its relationship with the environment, and that these cannot be understood separately: the tree as a document in which they are inscribed. different temporalities and environmental events. This early reading scene is crucial because it signifies the narrator’s introduction to a new form of literacy that is a rite of passage for him. In order to learn to be part of the community and the forest, he first needs to internalize this way of reading, which is in principle alien to him.

As in other forms of reading, the reader also reads himself in the text—in this case it is his death that he reads. Over time, the narrator will internalize the art of dendrochronology and describes his first reading experience in which he is able to read the rings of a log by himself:

Apoyé la uña en la línea y me quedé así por varios minutos, sentado enfrente del tocón, señalando mi llegada. Ese anillo era el límite. Lo que yacía de ahí hacia el centro registraba otra vida, la que intento abandonar, es madera oscura, colonizada por memorias inciertas y una identidad frágil. Trazo una línea con el dedo hacia la orilla, hacia la

²⁰⁵ “The growth rate in the vascular cambium depends on the seasons of the region in question.”

corteza, hacia el presente. Comprendo que no hay regreso. Eso me calma, la idea de abandonar los anillos oscuros (101).²⁰⁶

He reads his own story, the point where his journey began, and the life he left behind. By reading the tree rings, he also reads himself, discovers how his life and that of the tree are intertwined: in his own way, he has become part of the natural history of the forest. In a sense, we can say that just as the novel records the elements of the forest, so does the tree. Furthermore, the tree record includes a chronology of the forest, and the same cannot be said for the novel.

It is in this reading scene that the narrator discovers a new way of interpreting the forest and, in doing so, discovers a way of reading that speaks to him as much as to the environment. Therefore, it is not surprising that immediately after this scene you have a first experience of feeling part of the forest. At a time when a group of loggers walk in the direction of their felling, they do not notice him: “Eso está bien, el no ser visto, ser parte del paisaje, ser el bosque” (102).²⁰⁷ As we can see, there is a direct relationship between the ability to read the medium or, rather, the objects that make such legibility possible and become part of it. So, reading becomes a way of bridging the gap, a way of proximity and bringing dissimilar elements closer together. Reading the medium implies a new form of relationship with it that points to an understanding of differences and, possibly, a path of improvement. This episode not only opens the

²⁰⁶ “I put my fingernail on the line and stayed like that for several minutes, sitting in front of the stump, signaling my arrival. That ring was the limit. What lay from there towards the center registered another life, the one I try to abandon, it is dark wood, colonized by uncertain memories and a fragile identity. I draw a line with my finger towards the shore, towards the crust, towards the present. I understand that there is no return. That calms me down, the thought of ditching the dark rings.”

²⁰⁷ “That’s okay, not to be seen, to be part of the landscape, to be the forest.”

horizon of legibility beyond the human, but also recognizes nonhuman inscription forms.

Eduardo Kohn, in his commitment to an anthropology beyond the human, challenges human exclusivity in terms of its capacity for representation to affirm that “Nonhuman life-forms also represent the world” (8). This expanded notion of representation is difficult to grasp since we commonly confuse representation with language and cannot imagine forms of representation that go beyond human language. In other words, we tend to think of representation in terms of what Charles Sanders Peirce called “symbols,” forgetting the other modalities described by the American semiologist: icons (signs that share properties with the things they represent) and indices (signs that are somehow affected or correlated with the things they represent).²⁰⁸ These are non-symbolic semiotic modalities that humans share with other nonhuman life forms and that have properties that differ significantly from human language. If we admit that signs exist beyond the human, we can conceive of life as constitutively semiotic. What we share with other nonhuman beings, Kohn will say, is the fact that we live with and through signs. It is from this framework that we read here the place that dendrochronology occupies in *Leñador*: as a form of nonhuman inscription that opens the way to a new way of conceiving and relating to the environment.

²⁰⁸ An example of an index would be a weathervane that indicates the direction of the wind and is therefore affected by it. As an icon, an example would be a diagram or photograph and as a symbol, any alphanumeric representation system.

The Almanac

The camp is a place where it is difficult to find reading material outside of “the lumberjack’s literature.” The only object of alphabetical reading is an agricultural almanac that the narrator finds among a group of miscellaneous objects in the cabin. The almanac contains information on weather patterns and relevant to the harvest, among others: “Registra las pestes que afectaron ciertas regiones, épocas de tormenta y granizo, cosechas récord y otras que se perdieron, regiones que sufrieron de sequía, número de cabezas de ganado, inoculaciones bovinas, pesca de agua dulce/marina en toneladas, fechas de deshielo, actividad térmica, migraciones avícolas” (85),²⁰⁹ and the list continues. Unlike growth rings, which record the passage of time and past meteorological events, the almanac looks to the future and allows farmers to plan their work around the data contained in them.

These types of publications have been an invaluable source of information for centuries. As Peters emphasizes: “Calendars are particularly important items for religious ritual. Gutenberg produced the first printed almanac in 1457; the Bible came eight years later” (189) which gives us an idea of their popularity. Continuing with Peters, he points out that almanacs are a type of reference bibliography like cookbooks, dictionaries, and encyclopedias, which—unlike novels—are not read word for word nor linearly (Peters 290). Instead, they are the subject of fragmentary readings, where the reader selects the parts that interest him or are useful to him and discards the rest. In turn, as we have said, the structure of the novel is a clear nod to

²⁰⁹ “It records the pests that affected certain regions, stormy and hail seasons, record harvests and others that were lost, regions that suffered from drought, number of head of cattle, bovine inoculations, freshwater/marine fishing in tons, thaw dates, thermal activity, poultry migrations.”

this type of text since, although it continues to propose a linear reading, it suggests a structure that is not. At the same time, as Richardson points out, instruction manuals are essentially nonnarrative, a feature they share with other kinds of lists.²¹⁰ This analogy between the models *Leñador* is shaped after and lists will become relevant in the second part of this chapter, in the discussion of *Ártico: una lista*.

The proximity between the almanac (and other reference books) and the novel is accentuated when the narrator reflects on the text he is reading. When he reaches page eight of the almanac, he discovers that a reader before him has written “this is art” in one of the margins, which prompts the following reflection: “Decidí que se refería al almanaque mismo. Pero no en el sentido de objeto estético *per se*, sino más bien por la anacronía del compendio. Los almanaques pertenecen a otro tiempo y a otra mentalidad, así como las guías telefónicas o los manuales de niños exploradores. Son libros sin ánimo creativo, escritos al servicio de una función pragmática” (95).²¹¹ The comment on the margins would then be an expression of a reading approach: once the almanac loses its sense of usefulness (since it has become outdated) it can be read as art. This is said by the same narrator when asked about the status of an instruction manual for steam engines: “¿sigue siendo un manual aun cuando ya nadie utiliza motores a vapor?”²¹² His answer:

Puede ser. O quizás sea otra cosa, quizás a partir de la obsolescencia de un texto este se vuelva literatura, se vuelva arte. El manual, el

²¹⁰ I quote him: “We may observe that lists partially serve a function similar to that found in instruction manuals—also a kind of list—and recipes. Essentially nonnarrative, how-to lists and recipes inform you of the series of steps to be taken if you are to do something” (Richardson 328).

²¹¹ “I decided he meant the almanac itself. But not in the sense of an aesthetic object *per se*, but rather because of the anachrony of the compendium. Almanacs belong to another time and mind, just like phone books or Boy Scouts manuals. They are books without creative spirit, written at the service of a pragmatic function.”

²¹² “Is it still a manual even though no one uses steam engines anymore?”

almanaque, la guía, pasa a ser novela, una novela dotada de una honestidad brutal, sin artificio, sin pretensiones ni ambiciones literarias, sin ánimo de vanguardia ni de experimentación, simplemente un texto libre de espejismos (95-96).²¹³

As Alejandra Laera says, the almanac is a way of recording and reading time: it is a record of human/nature interaction and, in turn, belongs to another time. Its anachronism is what allows another reading from the present, when the obsolete text has lost its original function and can, therefore, be read as art. As in the example of the steam engine, the text has lost its initial reference, which makes it autonomous and opens up its aesthetic value: the reading of the text by itself, free from an external reference that justifies its existence. This is where the almanac reading differs from that of the growth rings: while the latter is in a close relationship with the environment—so much so that it can be materially read on it—the former has lost it. That is, the almanac contains information about crops and natural phenomena that were useful once but have long lost that connection. It can now be read as art separate from its environment and its time: the information in the almanac is no longer useful because both the taiga and its climate have changed.

To add to the above, the passage above (and in particular its final line “una novela dotada de una honestidad brutal”) can be read as a commentary on the novel about itself as a text devoid of artifice, literary ambitions or “espejismos,” dedicated to pure description. These descriptions can be read as those that we find in some of the subgenres that the narrator enumerates in the previous passage: guides, manuals and

²¹³ “Can be. Or perhaps it is something else, perhaps from the obsolescence of a text it becomes literature, it becomes art. The manual, the almanac, the guide, becomes a novel, a novel endowed with brutal honesty, without artifice, without pretensions or literary ambitions, without avant-garde or experimentation spirit, simply a text free of mirages.”

almanacs—in the sense that they are of an almost exclusively technical nature and describe objects with a closeness and detail more suitable for those types of subgenres than for a novel. The fact that the practical function is lost in the reading produces the aesthetic effect described in the passage. In this sense, *Leñador* achieves an effect almost opposite to that of the almanac that its protagonist reads: given its structure, the novel is read as if it were a reference bibliography, while he reads the almanac as if it were “art,” in this case, literature. Then he will return to reading with a particular enjoyment, which he describes “como si se me hubiese divulgado un secreto que los demás ignoran,”²¹⁴ (96) a secret that we can infer consists of a reading approach: to read the almanac as if it were something else.

If we follow Werner Wolf’s conceptualization of narration and description as cognitive frames that “serve to organize representations,” the main difference between the two is that narration focuses on “actantional representations implying motivated and (e.g., causally and teleologically) meaningful changes of situations,” while descriptions are concerned with “existential” phenomena. If the typical suggestion of narrative is that “something happened because of something else and led to a certain end,” the typical suggestion of description is that “something is there and like that” (33–34). This is what happens in *Leñador*: the existential takes precedence over the actantional and, as we will see, they merge into one towards the end.

There is a second scene of reading the almanac that occurs later and at the end of a workday. This time he sits down to read a very specific passage:

Era una tabla que ocupaba varias páginas en la que se detallaban las toneladas de trigo cosechadas durante un período de diez años. De

²¹⁴ “As if I had been revealed a secret that others ignore.”

dónde provenían las espigas, la calidad de los granos, el destino de los cargamentos y la asignación proporcional del grano. Leí las columnas de cifras sin presura y tomé peso del significado de los números, de su manifestación en el contexto. Lo leí entero, lo entendí y me sentí bien (248).²¹⁵

A moment that is a kind of *mise en abyme*, where the narrator models a reading experience that resembles that of the reader of *Leñador* and that Sandra Contreras describes as “el detenimiento y la extraña concentración que nos propone la lectura de corrido de una enciclopedia nos induce a una suerte de hipnosis, también a cierto alivio, mental y corporal” (17).²¹⁶ The narrator reads the lists included in the almanac much like we read the novel.

The Escape

At one point in the novel, in the first steps of his journey to the volcano, the narrator finds himself following a stream that will take him to the Yukon River. He realizes that being near water increases his chances of encountering a gray bear or a wolf, but instead of being discouraged by fear, he describes how the fear of being prey to one of the many predators that live in the forest helps him feel part of the world: “me ha servido, me ayuda a conectarme con algo fuera de mí, a sentirme parte de un mundo en el que mi existencia no prima sobre el entorno, pero con la certeza de que soy en el

²¹⁵ “It was a multi-page chart detailing the tons of wheat harvested over a ten-year period. Where the ears came from, the quality of the grain, the destination of the shipments and the proportional allocation of the grain. I read the columns of figures without haste and took weight of the meaning of the numbers, of their manifestation in the context. I read it in full, understood it, and felt good.”

²¹⁶ “The detachment and the strange concentration that the continuous reading of an encyclopedia proposes us induces us to a kind of hypnosis, also to a certain relief, mental and corporal.”

mundo” (340).²¹⁷ His discovery of the fragility of the human body in this environment leads him to surrender to it and realize that he is not above it: it is precisely the potential threat to his life that makes him feel a shared vulnerability with the world. The idea of an absence of hierarchy between the human “I” and the environment is something that will come back later and that is here related to decentralizing the self and being in contact with the outside, opening up to the outside. A new way of being in the world that, far from any hierarchy, implies a horizontality.

A similar experience occurs when the protagonist tastes honey from a hive that one of the other loggers has built: “Disfruté de esa miel como pocas cosas en la vida, esa misma miel me hizo entender que estaba valorando las cosas de nuevo, comprendiendo que la experiencia se enriquecía cuando todo estaba en su lugar debido, cuando uno abandonaba el espejismo y reingresaba al mundo, a formar parte del mundo” (357).²¹⁸ Note the similarity with the end of the previous passage: being in the world and being part of the world as two forms of experience. Also, the use of the word “espejismo” previously used to refer to a text without literary ambitions as “libre de espejismos.” This time it is referring not to a way of writing but to a way of being in the world, so that we could say that both are in agreement: a way of being in the world requires its own writing. In other words, there is an agreement in the form: form of living and of writing. Reencountering the world, becoming part of it, seems to require its parallel in writing.

²¹⁷ “It has helped me, it helps me to connect with something outside of myself, to feel part of a world in which my existence does not prevail over the environment, but with the certainty that I am in the world.”

²¹⁸ “I enjoyed that honey like few things in life, it is the same honey that made me understand that I was valuing things again, understanding that the experience was enriched when everything was in its proper place, when one left the mirage and re-entered the world, being part of the world.”

In one more step towards his integration with the environment, one night in which the narrator sleeping outdoors dreams of a place where his presence is indistinguishable from the environment, where he is nothing more than a wrinkle in the landscape: “un lugar en el que mi presencia no era una singularidad, no se distinguía del entorno, era más bien un matiz tácito del paisaje” (385).²¹⁹ Later he will say that the morning mist deprives him of a place in the world and that only when it dissipates does he become: “El mundo vuelve a percibirme, a integrarme, y soy” (390).²²⁰

Towards the end of the novel, one of the last entries is titled “Entorno.” In it the narrator points out something to which he has returned several times: when exploring wild territories, it is necessary to be very aware of the environment. Here, he examines the difference between nature and the domesticated nature of urban environments. Knowing the forests of Yukon requires a reeducation of the senses and a physical disposition towards the environment:

Para aquel que no ha logrado sensibilizar los sentidos y el cuerpo a dicho entorno, el territorio es un espacio foráneo en el cual uno se subjetiviza ante el paisaje y por ende se individualiza en relieve contra el bosque. Esta disposición crea un sujeto apartado del territorio, en él pero no parte de él. Esta oposición entre sujeto y Naturaleza resulta en una relación tensa entre ambas partes (430).²²¹

What the narrator points to is precisely a de-subjectivation, a loss of individualization and a consequent integration into the territory. This proximity to

²¹⁹ “A place where my presence was not a singularity, it was not distinguished from the environment, it was rather an unspoken nuance of the landscape.”

²²⁰ “The world perceives me again, integrates me, and I am.”

²²¹ “For those who have not managed to sensitize the senses and the body to said environment, the territory is a foreign space in which one is subjectivized to the landscape and therefore individualized in relief against the forest. This provision creates a subject separated from the territory, in it but not part of it. This opposition between subject and Nature results in a tense relationship between both parties” (430).

nature is obtained through the reading of its signs, which can be olfactory, auditory or visual. Living in the forest has allowed the narrator to sharpen his senses and make him capable of discriminating different smells and recognizing new sounds and images.

The above quote is followed by an explanation that this is what the Navajo loggers mean when they say that the white man cannot decipher the territory, that he is not part of it: “dejar que el paisaje te asimile y no pararse en oposición a él” (*ibid.*). For the white man, the narrator explains, nature is understood as an enemy, as something to fight against to subjugate or dominate. As in boxing or war, man against nature is a form of separation that implies a hierarchical positioning that the narrator calls “fabricated” and adds that it is this hierarchy that has led to many dying in the territory. The new disposition to the environment, then, is not merely a form of solidarity but a way of survival: “En dicho sentido, intento desordenar y desmantelar semejante mirada hacia el entorno y comprender el lugar y la función que uno cumple al pasar a ser parte del territorio” (430-431).²²² Dismantling one form of relationship to create another, where it becomes one of the dozens of objects described in the novel. This dismantling addresses the antagonistic disposition at the beginning of the novel and can be described as the main difficulty of the protagonist, who tries to take this form of relationship with the other (human or nonhuman) from antagonism to integration. This integration is carried out through a learning process that the novel captures in its meticulous descriptions.

²²² “In this sense, I try to disorganize and dismantle such a look at the environment and understand the place and the function that one fulfills when becoming part of the territory.”

In the last third of the novel, the narrator decides to start his second escape by leaving the camp where he lives with the other loggers and heading north: “hacia el volcán, hacia el norte, hacia los límites” (403).²²³ His decision comes abruptly after examining a trepanned skull that rests over his cabin fireplace. He looks at it up close and finds in it “something familiar, something attractive,” and he adds: “Quise habitar ese lugar. Luego pensé y me di cuenta de que ya lo hacía, que ya era prisionero de un cráneo, que la verdad era que deseaba escaparme de ese encierro y encontrar mi lugar fuera de mí. Regresé la calavera a la repisa y junté mis cosas” (316).²²⁴ This time his escape has more to do with the inside than the outside—he seeks to escape his inner prison by going deeper into the forest in solitude. From this moment on, the narrative acquires a new sense of chronology, since each of the entries will be interspersed with fragments of the trip. These decidedly narrative fragments will be presented to us chronologically and will lead to the culminating moment of the novel. In this sense, it breaks with the previous fragmentation in which the narrative snapshots worked strictly around the description offered in the entries, without chronological order.

The culmination of the trip is a moment of synthesis that erases the boundaries that separate action from description, since it consists of the same thirty-page long sentence that describes, first, the environment at the base of the volcano: “Me acerco a la base del volcán. Los cielos se oscurecen, el otoño atardece, los días cada vez más breves, las sombras se alargan, las hojas de mi mundo se tornan rojas y amarillas y

²²³ “Towards the volcano, towards the north, towards the limits.” We say that it is the second flight taking into account that the first is the one that takes place at the beginning of the novel when the narrator arrives in Yukon from an archipelago in the Southern Cone.

²²⁴ “I wanted to inhabit that place. Then I thought and realized that I already did, that I was already a prisoner of a skull, that the truth was that I wanted to escape from that confinement and find my place outside of myself. I put the skull back on the shelf and gathered my things.”

luego pardas, como llamas que se sacuden en la brisa (...)" (465),²²⁵ the world has now become his world, signaling his integration into it. The following passage is particularly relevant:²²⁶

los animales observan, sienten, huelen, sus presencias hacen presión contra la sustancia del mundo, presionan con su ser al arrojarse en él, y el mundo responde, empuja, y esa tensión le da textura y significado a las cosas, y yo me dejo sumergir en el paisaje, me dejo estar, el bosque ya no es un conjunto de partes, es lo que es, es el bosque, y todo lo que hay en él es el bosque, y yo soy el bosque, soy en el bosque, sin relieve, mi presencia no es presencia, es una colina suave en el paisaje, una cama de musgo, las raíces de un roble, las agujas de un pino, las piedras repartidas en la ribera, todo suave, sin separación ni unión, simplemente es, y cuando yo observo lo demás observa (468).²²⁷

The passage seems to point to a fundamental limitation of the narrative: the novel can only tell the forest as a set of parts, but the narrator's discovery is precisely that he begins to live it as a whole.

The long description of the environment is followed by the narrator's understanding that autumn will soon give way to winter, and he finds a pine tree that he believes will provide him with firewood and shelter. What follows is a narrative sequence that describes the felling of a tree and meticulously records every movement

²²⁵ "I approach the base of the volcano. The skies are darkening, autumn is getting dark, the days are getting shorter and shorter, the shadows lengthen, the leaves of my world turn red and yellow and then brown, like flames swaying in the breeze."

²²⁶ In Contreras' words: "la desmesurada descomposición de la acción de talar en sus más mínimos detalles y, sobre todo, la repetición y expansión del núcleo de imágenes que condensan el momento del golpe, hacen de la frase misma, de su ritmo y de su *ritornello*, una acción" (16) ("the excessive decomposition of the action of felling in its smallest details and, above all, the repetition and expansion of the nucleus of images that condense the moment of the blow, make the phrase itself, its rhythm and its ritornello, an action.")

²²⁷ "Animals observe, feel, smell, their presences press against the substance of the world, they press with their being by throwing themselves into it, and the world responds, pushes, and that tension gives texture and meaning to things, and I let myself immerse myself in the landscape, I let myself be, the forest is no longer a set of parts, it is what it is, it is the forest, and all that is in it is the forest, and I am the forest, I am in the forest, without relief, my presence is not presence, it is a smooth hill in the landscape, a bed of moss, the roots of an oak, the needles of a pine, the stones scattered along the riverbank, all smooth, without separation or union, simply it is, and when I observe the rest observes too."

of his body, every contact between the ax and the trunk, as if filmed in slow motion (Laera). Each movement is broken down into smaller ones: “me paro enfrente del árbol a un metro del tronco, y separo las piernas para que cada pie quede en línea con los hombros, planto bien las botas en el suelo húmedo, deslizo mi mano izquierda por el cabo y lo empuño de la garganta, la mano izquierda se aferra al hombro del cabo, justo debajo del empalme con la hoja” (469).²²⁸

We said at the beginning that the novel opens with two references to failures in combat, two forms of confrontation between humans: war and boxing. As we see here, it concludes with what appears to be another form of confrontation that defies the logic of success and failure and lacks a fundamental aspect of confrontation: hostility. Instead, it consists of an encounter between human and plant in which there is no longer an opposition between the two parties, but a sense of continuity. What has changed is the type of relationship between human and nonhuman, where the inside/outside logic has been replaced by an unbroken continuity: the protagonist has become another object among the many that inhabit the Yukon forests.

After rehearsing the database as a textual spatiality typical of a media ecology after the book and, at the same time, proposing forms of reading that transcend even the alphabetical one, the novel finds a modality where description and narration de-differentiate and where the infinitesimal movements blend in with the environment. It arrives at a form of writing that coincides with a form of being in the world—a form of agency where action and presence merge into one. If, according to Coccia, “[i]n

²²⁸ “I stand in front of the tree a meter from the trunk, and I spread my legs so that each foot is in line with the shoulders, I plant my boots well on the wet ground, I slide my left hand through the rope and grasp it by the throat, the left hand clings to the corporal’s shoulder, just below the junction with the blade.”

making possible the world of which they are both part and content, plants destroy the topological hierarchy that seems to reign over our cosmos” (10), thus blurring the lines between container and contained, *Leñador* proposes a similarly flat topology without hierarchy by structuring both world and novel as a database and by collapsing narration and description.

4.2. *Ártico*

Ártico: una lista (2017) is Mike Wilson’s ninth publication and the only one that is written in verse, despite preserving the narrative character of his previous works.²²⁹ If the final passage of *Leñador* constitutes a single, thirty-page long sentence, the syntax here is such that there are no punctuation marks at all, and no paratextual breaks to interrupt the narration: it is one single uninterrupted list. Its “items” are made of either very short sentences (never longer than six words), syntagms, or single words. This makes it such that any fragment we extract for analysis is even more markedly arbitrary, since the only textual units are the items in the list. In its content, it tells the story of a narrator who wanders around an abandoned zoo in an unnamed city during a very cold, stormy day. At some point, he will leave the zoo to explore the city only to later come back to where he began. The abandoned zoo and the equally deserted city, together with the hostile climatic conditions (as suggested in the title) make for a post-apocalyptic setting that is reinforced both by a language of scarcity and the novel’s scenes of reading.

²²⁹ It should be noted that, aside from his fiction, Wilson has also published two works of nonfiction: *Where is my mind? Cognición, literatura y cine* (2012) and *Wittgenstein y el sentido tácito de las cosas* (2014). Since *Ártico*, he has published three other works of fiction: *El océano invisible* (2019), *Ciencias ocultas* (2019), and *Némesis* (2020).

The novel comments on the ubiquitous presence of archival technologies in the present and imagines a post-apocalyptic world where these have lost their referents and become the site of fiction.²³⁰ Even though the novel only includes analogical forms of technology and there is no mention digital culture (also absent in *Leñador*), their ubiquity implicitly remits to it. I will argue here that the novel's insistence on different archival technologies both at the level of content and form, puts forth fiction as a mobilizing force of obsolete archives. At the same time, the story of *Ártico* is one made of memories of a bygone world. When finding himself at the end of the world, the narrator is faced with a series of mnemonic devices and situations that are memory-evoking. With its portrayal of remembrance, it functions as a device of anticipatory mourning in a context of loss.²³¹

Today, in addition to the multiplication of archival technology brought about by digitality, the challenge of the Anthropocene calls forth the necessity for a new understanding of memory and mourning, one that subverts its traditional directionality and scale (Craps) and becomes more future-oriented. If remembering has been described as allowing individuals and groups to “situate themselves in their natural environment and construct a sense of the past,” (Schliephake 569), and therefore relying on a stable background against which allows memory to unfold (Liebermann

²³⁰ On the ubiquity of archiving technologies, Chadwick and Vermeulen comment: “Archiving has become an increasingly ubiquitous part of everyday life. Every e-mail we receive is instantaneously stored in the cloud, and every Google search we begin is autocompleted by an algorithm that draws on the archive of our past searches, clicks, messages, and purchases. The archive, in other words, not only stores the present even as it unfolds, it also actively produces the present and the future” (1).

²³¹ There are several instances of loss in the novel: the personal loss of the narrator’s partner, the experiential loss of world, and the ecological loss of the animals from the zoo.

and Neumann), in the present the stability of said background has come into question.²³²

Simultaneously, the Anthropocene has often been described in close proximity with inscription and even as the inscription of the human on the Earth's geological record. Not only has human impact on the planet been "so profound that our existence will be discernible as a distinct geological layer long after humanity has gone extinct" (Craps 499), but this new epoch is "legible in the geological record that is being left by humanity's collective geophysical agency. This unfolding geological record of humanity's inscriptions can be thought of as an archive by which the past and future history of the Anthropocene might be remembered" (Crownshaw 500).

Finally, another issue that the Anthropocene raises and that is directly relevant to the novel is that of mass extinction. Even though the reasons why the nonhuman animals are gone from the zoo, the specter of extinction hangs over the novel at a moment when we are living through the largest extinction since that of the dinosaurs 66 million years ago (Kolbert). The difference being that this extinction is almost entirely driven by anthropogenic forces. At the same time, this scenario of mass extinction and the weakening of our ecosystems also puts into question the survival of the human race.²³³ As described by Chadwick and Vermeulen, "self-archiving is not only a technological compulsion, it is also often a way of engaging with the threat of ecological collapse" (5).

²³² This has prompted some to call for the emergence of a new phase in memory studies: "a phase prompted by our growing consciousness of the Anthropocene that takes the gradual scalar expansion characterizing the previous phases to a whole new level – travelling memory on steroids – while calling into question the humanist assumptions undergirding these phases." (Craps 500).

²³³ As defined by Rose et. al.: "Mass extinction is marked by three primary characteristics: a radically high number of species being lost; the loss taking place across a diverse range of life-forms; and the compressed time frame within which it is occurring" (1).

The List as Form

In *Ártico* the question of form is no less central than it was in *Leñador*—its title announces it and proposes a disposition of reading: it is made of one long list. When asked about the choice of this form, the author explains that, in his view, it allows for an ambiguity that is neither narrative nor poetry: “Yo no lo defino como una cosa u otra. En mi mente es más narrativo que cualquier otra cosa. Sé que tiene elementos poéticos. Por eso me gusta el concepto de lista, no es ni una cosa ni la otra, se lo deja abierto, en esa ambigüedad” (Wilson and Plaza 247).²³⁴ The ambiguity of its form will be one of the main points of exploration in the second part of this chapter, where I will read it in conjunction with archival technologies such as the zoo and its library.

This short novel (by lack of a better name) by Wilson is in many ways a continuation of *Leñador*: they are linked not only thematically with regards to desolate and cold environments and their narrative perspective, but also in their formal experimentation. The list in *Ártico* is a continuation of the database structure of *Leñador*. In addition to this, there are several instances of *mise en abyme*, where the narrator either finds or makes lists. However, one point where these two texts are diametrically opposed is in their extension: the dense *Leñador* is over five hundred pages long, while *Ártico*, is a mere eighty pages. This difference in extension also translates to the kind of depth of description that they achieve: whereas the former was

²³⁴ “I don't define it as one thing or another. In my mind it is more narrative than anything else. I know it has poetic elements. That is why I like the concept of a list, it is neither one thing nor the other, it is left open, in that ambiguity.”

rich in highly detailed description, the latter is prone to a brevity that often only goes to the extent of simply naming the object. It even looks visually like a list (fig. 9).

The list as a form is defined by a certain spatial disposition and, as said earlier, by a syntax that admits no breaks or interruptions since they are often a form of interruption in themselves. Lists have been a part of literature since antiquity.²³⁵ However, they are often incorporated into a larger structure and rarely constitute the guiding principle of a narrative, as is the case of *Ártico*. This can be explained by the fact that, from a narrative point of view, they can be defined as “an element that defies the sequentiality of narrative and breaks open the successive flow of events” (Von Contzen 241). Unlike narrative, lists do not need to be organized following a logical order and, consequently, the kind of reading they propose is equally non-sequential. This is why, when interjected in the context of a narrative, they are often regarded as an interruption of the narrative flow.

In the same article, Von Contzen highlights not only how lists have existed for as long as literature has, but how pervasive they have become in the present—so much so that a new phenomenon seems to have emerged: the “listicle” (a portmanteau of “list” and “article”), which “describes the phenomenon of condensing information into the form of a list” (*ibid.*). As I have already explained, lists are intimately tied to the origins of writing as a technology: the earliest forms of writing were lists, which are—in themselves—a form of database. Again, outside of literary fiction and poetry, these have mostly served practical purposes of storing, ordering, and managing information. On the uses of lists in narratives, Von Contzen adds: “As a truly ‘simple form,’ the list

²³⁵ An early example of a list is the catalogue of ships in the second book of *The Iliad*.

can be straightforwardly incorporated into and be identified within a narrative while (and because) it forms a discrete unit within the text” (243). The simplicity of the form serves the novel’s simplicity of language—or better—a language that is as barren as the novel’s environment.

In an often-quoted description, Robert Belknap defines lists as follows:

At its most simple, a list is a framework that holds separate and disparate items together. More specifically, it is a formally organized block of information that is composed of a set of members. It is a plastic, flexible structure in which an array of constituent units coheres with specific relations generated by specific forces of attraction. Generally such structures may be built to appear random, or they may be organized by some overt principle” (35-36).

The question of organization should be noted here. Lists can either be a random assortment of items, or, as Von Contzen puts it, be organized according to a syntactical framework. The latter is the case of *Ártico*, where the list is a form of organizing a narrative, although, as we will see, it also includes lists within the list. As such, in general terms it defies the principle of a-sequenciality outlined above, since the reading it proposes is strictly sequential, like that of any regular novel.

As a form, lists are inherently nonnarrative and are often more appropriate for description. This is something that becomes particularly evident in *Leñador*, where we saw how the items described under each entry flatten and stretch the novel’s temporality and are interspersed with narrative segments. Another good example of this temporality is at the heart of one of the most notorious lists in twentieth century Latin American literature: the one describing the experience of encounter with “The Aleph” in Borges’s homonymous short story. The narrator describes the difficulty of rendering simultaneity while using successive languages, highlighting one of the

shortcomings of writing: the form that best lends itself for his description is precisely that of a list of disorganized and disparate elements²³⁶. Given this, it is curious that Mike Wilson views the formal choice as one that paradoxically favors the narrative nature of the text compared to his previous novel. If lists are usually equated to description and description is understood as an interruption of narrative or, rather, a temporal lapse in narrative,²³⁷ in the case of *Ártico* the narrative emulates the form of a list, but the adoption of said form does not take away from its sequentiality.

The Found Lists and Memory

Similar to *Leñador*, *Ártico* presents a first-person narrator in a world in ruins. The novel begins with him entering an abandoned zoo that is described through the elements that are missing from it: “No hay nadie/ No hay público/ No hay niños/ Ni globos/ Ni maní/ Ni estiércol/ Ni risas” (13).²³⁸ This list of absences is mirrored by the plain language used throughout the text, mirroring that of lists—specifically their practical nature and their tendency for a concise language that excludes artifice. More

²³⁶ Another of his famous lists is the one included in “El idioma analítico de John Wilkins” where here compares Wilkins’s classification of rocks to a list of animals from a Chinese encyclopedia: “en sus remotas páginas está escrito que los animales se dividen en: (a) pertenecientes al Emperador, (b) embalsamados, (c) amaestrados, (d) lechones, (e) sirenas, (f) fabulosos, (g) perros sueltos, (h) incluidos en esta clasificación, (i) que se agitan como locos, (j) innumerables, (k) dibujados con un pincel finísimo de pelo de camello, (l) etcétera, (m) que acaban de romper el jarrón, (n) que de lejos parecen moscas” (1974 708) (“In its remote pages it is written that the animals are divided into: (a) belonging to the Emperor, (b) embalmed, (c) trained, (d) piglets, (e) mermaids, (f) fabulous, (g) loose dogs , (h) included in this classification, (i) that shake like crazy, (j) countless, (k) drawn with a very fine camel hair brush, (l) etc., (m) that have just broken the vase , (n) that look like flies from a distance.”) Among others, the list is notable for the paradox of being a set that includes itself (h). Jan Alber would say that this is an example of a list that is random and not organized by any recognizable principle and does not provide orientation, at least in the traditional sense (343).

²³⁷ Von Contzen characterizes description as a modality that “opens up a narrative space that is a-sequential and a-temporal with respect to the rest of the narrative” (246).

²³⁸ “There is no one / There is no audience / There are no children / No balloons / No peanuts / No manure / No laughter.”

importantly, there are no animals, which accentuates the resemblance of the zoo to a ruin: it no longer serves the purpose it was created for—that of housing and exhibiting animals. All that is left are representations of animals in the form of small statues scattered throughout the zoo.

One of the first objects that he encounters and describes in some depth is a wet newspaper and he does so through a list: “Hay un periódico mojado/ Las líneas se traslucen/ Línea sobre línea/ Nacionales/ Comerciales/ Internacionales/ Clasificados/ Obituarios/ Crucigrama/ Monos y sociales/ Papel empapado/ El mundo se fusiona/ Transparente/ Una lápida de celulosa y tinta” (14-15).²³⁹ As we can see, unlike the previous novel, alphabetic reading is readily available here, although only in the form of isolated scrapes of paper. This first scene of reading does not resemble any form of close reading, but conspicuously involves an enumeration of categories that organize the newspaper. The reason this is important is that it frames the world-of-the-end that permeates the whole text: a world where all is left are the categories to organize it, but these are signs that have lost their referents. Another early example of this comes when the narrator visits the polar bear cage: “Voy a la jaula de los osos polares/ No hay osos/ Pero hay un letrero/ Dice oso polar” (16). The only signs point to their absence: “Un horizonte postizo pintado/ Y pingüinos de yeso/ Mutilados y mascados/ Por los osos ausentes” (*ibid.*).²⁴⁰ Here, the bite marks on the penguins are an index that

²³⁹ “There is a wet newspaper / The lines show through / Line on line / National / Commercial / International / Classified / Obituaries / Crossword / *Monos* and social / Soaked paper / The world merges / Transparent / A tombstone of cellulose and ink.”

²⁴⁰ “I go to the polar bear cage / There are no bears / But there is a sign / It says polar bear” and “A painted false horizon / And plaster penguins / Mutilated and chewed / By the absent bears.”

points to the fact that there once were polar bears, as such, it similarly points to their absence.

To examine these two passages, I would like to go over one final definition of lists proposed by Umberto Eco in his *The Infinity of Lists*. Eco makes a distinction between “pragmatic” and “poetic” lists. Some examples of the former are the shopping list, the list of guests invited to a party, the library catalogue, the inventory, and even the dictionary. He sees three characteristics that define pragmatic lists, the first of which I will quote in full: “a purely referential function, in other words they refer to objects in the outside world and have the purely practical purpose of naming and listing them (if these objects did not exist this list would not make any sense or we would already be in the presence of, as we shall see, a poetic list)” (113). The second is that, since these lists have referents that are “really existent and known,” they are finite. Finally, they may not be altered.²⁴¹ This characterization is relevant to our novel because the lists and—more generally—forms of archiving present in the novel are a case of signs that have lost their relations to objects in the outside world and, as such, become empty or floating signifiers. Similar to the almanac in *Leñador*, once this referentiality is lost, one can read the text through a different approach. At the same time, it highlights another key aspect of lists and listing—their relation to memory.²⁴²

As a novel, *Ártico* is the memory of a bygone world, it is a reflection on the archives that have organized our world and their obsolescence, under the guiding

²⁴¹ Eco explains this last characteristic as follows: “in the sense that it would be unethical as well as pointless to include in a museum catalogue a painting that is not kept there” (113).

²⁴² For instance, the fact that the permafrost (the permanent frost) is currently melting, prompts James Bridle to suggest that, in some way, words do not make sense anymore, “and with them go the ways we have to think the world” (51).

question: what is the point of a list if there is no longer a world to be organized? My answer is that once these lists lose their referentiality they gain something else: they can become anchors for storytelling. In the novel, the world has become an empty shell of itself. All that is left are the signs that remind us of what is gone: instead of animals, their statues, labels and cages; instead of a newspaper, the names of its sections; instead of Santa, his old costume. Immediately after seeing the newspaper, the narrator finds this old and rotting Santa costume and he puts it on. Santa's link to lists is anticipated in the first of the two epigraphs that precede the novel: an excerpt from Haven Gillespie's "Santa Claus Is Coming to Town:" "he's making a list/ and checking it twice/ gonna find out who's naughty and nice." Santa's lists are a record that helps him classify and remember children. In turn, by wearing the Santa costume, the narrator adopts the role of a list-maker himself.

In the second epigraph, a quote from Cormac McCarthy's *The Road* reads (in Spanish translation): "Cold as it was he stood there a long time. The color of it moved something in him long forgotten. Make a list. Recite a litany. Remember" (31). The color that moves the protagonist (the father) is that of a forest fire that he awakes him. There are several elements that *Ártico* shares with McCarthy's novel. First, the post-apocalyptic world and its barren environment. Wilson also keeps from McCarthy the cold; the first word in the novel is "winter" and the author has said that the weather is one of the main points he wanted to explore (2018). Finally, a motif Wilson borrows from this quote is the evocative power of images (the color) and the list as a mnemonic device. As Oliver Völken has commented on this particular passage from *The Road*, "[i]t is important to stress that this loss of memory and the consequent

imperative to create “lists” is not merely stated by the father, but represents a poetic principle of the novel” (76). Even when the poetic principle in *Ártico* is similar, the problem is not a loss of memory, but precisely the fact that all that is left of the world are its records and archives. In this sense, the novel proves the survival of narrative potentiality when all that is left of a world are its catalogues. As Claire Colebrook claims, “[o]ne of the classic motifs of post-apocalyptic culture, or depictions of the ‘end of the world’, is that humans exist but have no world” (509). This is true for *Ártico*, where the end of the world is palpable in the sense of loss that cuts across the novel and can be seen in its language, its environment, and the place occupied by archival technologies.

The second found list is flying in the wind and caught by the narrator. It consists of a carbon copy of which the hand-written original has been lost. Judging by its items, it is a stationary shopping list that includes both the objects and the amounts to be bought. After reading it, the narrator drops it, and it is taken up by the wind: “El viento lo recoge/ Sale disparado/ Hacia la jaula/ De aves postizas” (23).²⁴³ This time the list evokes memories of his childhood and distinct smells, tastes, and sensations. The scenes of reading in *Ártico* are aimed at found objects and reduce reading to mere labels. Like in *Leñador*, they provide us glimpses into how the narrator views the world: his worldview is shaped by his reading experiences.

After letting go of the shopping list, he hits himself in the head as the storm worsens and another memory strikes him, that of a woman he loved many years before. Unsure about the reason, he speculates: “Quizás es el golpe/ O la tormenta/

²⁴³ “The wind picks it up / It shoots out / Towards the cage / Of artificial birds.”

Algo te trajo” (26-27). In any case, memories of this relationship will keep returning throughout the rest of the novel. Once the narrator leaves the zoo, we discover that the city outside of it is equally empty, and this time the list is neither found nor does it represent absent objects, but it adopts the conventional role of serving as a descriptive device: “Avenidas anchas/ Edificios monumentales/ Columnas/ Ventanales/ Torres de hormigón” (35).²⁴⁴

In his journey through the zoo, he walks past the library building, which calls his attention: “Me pregunto el porqué/ De los libros/ En un zoo” (18).²⁴⁵ The thought of these books that he cannot access comes back later in the novel, after his second encounter with a security guard who punches him to the ground and keeps punching him once he has been knocked down. He looks at the sky and between the snowflakes and the clouds he can see a few distant stars that might have extinguished long ago: “Quizá de eso/ Hablan los libros/ En la biblioteca/ Del zoo” (68).²⁴⁶ As we can see, in both allusions to the library it is seen from a distance, as an inaccessible place, and its books remain secluded and unread. It is in imagining these books as to be about the primordial cold of the universe that the parallel between them and other forms of labelling, listing, and archiving becomes evident. In some ways, the books, the signs, the cages, and the lists are echoes of a world that, like some of those stars, is already dead. In *Ártico*’s world-of-the-end, telling stories is analogous to keeping those dead stars from losing their light.

²⁴⁴ “Wide avenues / Monumental buildings / Columns / Windows / Concrete towers.”

²⁴⁵ “I wonder why / Books / In a zoo.”

²⁴⁶ “Maybe that is / What the books / In the zoo library / Are about.”

Like the previous, several other passages hint to a planetary temporality where the human is a transitory item on a list. A limping woman he finds in the city talks to him and exclaims: “Me dice/ Que el frío/ Es el alfa/ Y el omega/ Que antes del Cosmos/ Había frío/ Y cuando se acabe/ Cuando los astros/ Se extingan/ Habrá frío” (43).²⁴⁷ At the sight of clouds in the sky, the narrator describes the weight of the weather: “Creo sentir la densidad/ El peso de la tormenta/ Unidades de presión/ Bar/ Pascal/ Milibar” (17).²⁴⁸ It is, again, through a list that he experiences the world. In this case, it is listing the units of measure that helps him feel the world and describe the weight of the storm. The world appears as a list of categories: its sensorium can only adopt the form of measurement.

In the city, there is one single scene of writing, where the narrator writes with his finger on a dusty window, creating a visibility that allows him to look through it and see a gallery where he used to play video games with the woman he remembers. He also remembers the words of the limping woman and adds: “Pienso que la galería/ Es el cosmos/ Una maqueta/ De las cosas/ Que se avecinan/ De las estrellas extinguidas/ Y del frío/ Que nos aguarda” (56).²⁴⁹ The cold as an endpoint, as a metaphor for the times-of-the-end, of an inevitable ending. With it, will come the extinction of all life forms.

The Extinct Zoo

²⁴⁷ “She tells me / That the cold / It is the alpha / And the omega / That before the Cosmos / There was cold / And when it ends / Once the stars / Have extinguished / There will be cold.”

²⁴⁸ “I think I feel the density / The weight of the storm / Pressure units / Bar / Pascal / Millibar.”

²⁴⁹ “I think that the gallery / Is the cosmos / A model / Of things / That are coming / Of the extinguished stars / And of the cold / That awaits us.”

The zoo serves as an entryway into the city, which mirrors the opening of Benjamin's "Berlin Childhood around 1900" that recalls nursemaids taking him to the *Tiergarten* as his earliest introduction to the city. In his *Minima Moralia*, Adorno sees zoos as fed by a unique desire: "a hope that animal creation might survive the wrong that man has done it, if not man himself, and give rise to a better species, one that finally makes a success of life" (115). For Adorno, zoos "are laid out on the pattern of Noah's Ark, for since their inception the bourgeois class has been waiting for the flood" (*ibid.*). Following this, one could say that zoos are a means of collection and preservation for the future—a trait they share with other kinds of archives, as underlined by Derrida: "As much as and more than a thing of the past, before such a thing, the archive should *call into question* the coming of the future" (33-34).

If a zoo is a collection, an archive of nonhuman animals, this quote by Benjamin should be helpful for understanding them: "What is decisive in collecting is that the object is detached from all its original functions in order to enter into the closest conceivable relation to things of the same kind" (1999 204) and adds that "[i]t must be kept in mind that, for the collector, the world is present, and indeed ordered, in each of his objects" (1999 207). Aaron Santesso (following Benjamin) describes the modern zoo as "as an early and condensed version of the modern attempt to collect and organize citizens in a controlled and structured way," (445) an idea that identifies a foundational inclination of the zoo: the way it understands itself as a scientific collection, a cataloging of species. In this taxonomically organized system, Santesso adds, the displayed animal is less important than the structure it is part of, and "[o]ne could replace any individual animal with another of the species, that is, and the

structure still makes sense; indeed, even an empty enclosure, while disappointing as a spectacle, does nothing to lessen the overall effect of the organizational layout, but rather confirms the logic of the overall design” (446). According to this description, they function similarly to signs in a system. However, does the structure still make sense if all enclosures are empty?

As we have said, the list, the library, and the zoo are cataloguing technologies that are only made possible by writing. Writing is what allows this disposition towards the world, its obsession with the past and with accumulation and classification. However, as we have anticipated, the novel asks what happens when, by losing their connection to real objects, these technologies become obsolete. And it is this obsolescence what makes them apt for fiction, since fiction can unleash their generative potential.

Databases and lists are the two prime generative forms in the two novels by Mike Wilson analyzed here. If in *Leñador* the database was a device that allowed for a form of being in the world, in *Ártico* the list mobilizes a form of memory that puts into question the archival drive of the present. By imagining a future where these archives lose their referentiality, *Ártico* seems to suggest that they become forms of fiction in themselves, their legibility only survives as (part of) fiction. It is here that the novel points to the inscription of the human into the future of the planet—one where we follow the animals in the zoo to become nothing more but an archive. But who will be there to read it? What stories will it tell? And for whom?

CONCLUSION

To open this conclusion, it is important to point out some of the issues that cut across several of the objects that have been analyzed here. As proposed here, these objects are concerned with planetary temporalities and entanglements that exceed the human. Theirs (and ours) is a world of slowness and uneventfulness, where description takes precedence over narration, and *being* over *doing*. In the second chapter, I show how narratives that engage with geological time put the human in perspective and imagine new ways of conceiving temporality in the Anthropocene—one where human meets nonhuman temporality. The question of temporality is also crucial to chapter one, where Schweblin’s novel stages the rift between the slow transformation of the space and the temporality of urgency the encounter sets off. In the third chapter, Gerber’s temporal lens points to the future and it is through an anachronistic assemblage of temporalities and voices that the artist imagines alternate futures. Finally, in Mike Wilson’s *Leñador* the proliferation of descriptions means that time is compressed to a near standstill, and at the same time the narrator encounters dendrochronology as a way of both engaging with the trees’ temporality and relating to the natural environment. All in all, these show how reading and writing with the nonhuman implies engaging different temporalities. In so doing, they put into question the understanding of literature as a temporal art, that is, an art of time where the parts do not appear together but successively in time. Even if they are carried out within the constraints posed by the medium, these narratives attempt to bend their form in ways that offer an experience that defy succession in favor of forms of temporal

juxtaposition, slowness, speculation, and anachronism that are more attuned to those of the nonhuman.

These temporalities cannot be thought without paying attention to the place occupied by events in these narratives. Mike Wilson's novels show how, in the entanglement between narrative and database, the former helps us make sense of the latter. At a moment when databases are privileged forms of storing and managing information, narratives still play a decisive role of turning data into information. At the same time, uneventfulness is also a significant feature of Wilson's novels, where description as a form of being in the world displaces events as the driving force of the narrative. As can be seen throughout, the objects analyzed here present different forms of disasters, which pose the challenge of their "uneventfulness"—in the sense that they do not present themselves loudly as an event, but as a faint happening that is hardly an event at all. In chapter one, I show how Amanda, the protagonist of Schweblin's novel, is unable to witness the disaster that is unfolding before her own eyes. In her facing a space that has been transformed by invisible nonhuman agents, she turns to David to put her own experience into words. In a dialogical narration, the text reveals the urgency of narrative as a form to help us make sense of threats that are the result of new human/nonhuman entanglements that become increasingly difficult to witness. Something similar happens in Pron's short story, where the human characters' obliviousness toward their surroundings is juxtaposed with the story of the actual protagonist of the story: an agglomeration of matter that is followed over the span of millions of years. In so doing, the short story allows us to understand the vicissitudes of this nonhuman object to which we would otherwise remain indifferent. However,

the story does not put the reader in a place of witnessing, since it reveals the impossibility of so doing: one cannot witness planetary events, which is why other forms of visibility need to be articulated. These narratives turn the page on the era of the witness—both listening to the witness and putting the reader in the place of the witness lose importance in telling stories. Reading and writing with the nonhuman is not concerned with witnessing or making the reader or spectator a witness, but rather providing a frame of legibility or visibility, with designing a path or a form of being with the nonhuman. They also do not embark on a pedagogical explaining how these human/nonhuman entanglements work, but rather through a reimagination of storytelling show us how the act of reading can be transformative in terms of the perspectives we adopt to see the world. This was shown in Gerber Bicecci's work, where the plurality of voices are not in representation of a collective, but each voice stands in for itself alone. Not only is it not engaging in a paternalistic "giving voice to the voiceless," nor putting itself in the shoes of the other, but instead it is staging those voices in such a way that it reveals the shared character of the story being told. As readers, we are not witnessing this but instead they help us imagine new ways we can ourselves relate to other beings and temporalities. In a different manner, Oloixarac's novel also participates in a form of visibility that points to ubiquitous surveillance systems that, while not invisible, often remain unseen. It is by showing its dark areas that acquires a new frame of visibility—one that questions the imperative of ubiquitous legibility that ignites data mining infrastructures.

Throughout this dissertation, I show how nonhuman actors have distinct forms agency, accompanied by a transformation of human agency: some of these being

geological and technological agency. As evidenced by Oloixarac and Schewblin's novels, agency is not unique to subjects since it is also distributed throughout the environment—the subject is no longer the supervisory authority and multiple agencies question the exceptionality of human agency. At the same time, this first chapter discusses how the environment can no longer be understood as a background and how this problematizes the subject/object divide, for there are instances where these become flipped, including the becoming object of the subject in what has been described as "machine reading." In the case of Wilson, it is the becoming-environmental of the human that blurs the line between foreground and background: once the narrator acknowledges the trees' capacity for a form of inscription that registers its relationship with the environment, this agency reframes his relationship too. A similar question holds true for Pron's short story, where human agency is overshadowed by other agencies that are often overlooked. By foregrounding these agencies, the story pushes human agency to the background as just one amongst many planetary agencies that display an engagement with the planet that is not predicated upon use value. Gerber's work also foregrounds human/machine entanglements in our projections of the future and offers a critique of predictive technologies. While incorporating machines generatively in her fiction, Gerber upholds the potentiality of speculative fiction to imagine futures that are neither mere projections of the present nor repetitions of the past. These narrative reveal forms of nonhuman agency that the reader might often not be aware of, and they do so by making the perspective of the world as seen from the nonhuman as their main focus. They show how the nonhuman is not a mere presence but a one that shifts the notion of human exceptionality. Once it

has been established that the human is no longer exceptional, nonhuman beings need to be acknowledging in their world-making.

If authorship has long been construed as a prime realization of agency, reading and writing with the nonhuman means putting into question traditional understandings of authority and authorship. These narratives engage with plural forms of authorship, often telling a story from a position of reading, one being what I have called Schweblin’s “dialogical narration” that implies narrating from a position of listening or being with the other. In cases of algorithmic reading, the loss of authority is no longer merely metaphoric and reading is either carried out without subjective intervention or as part of a process where human reading is just one node in a complex web of human/machine interactions. For instance, Gerber not only rewrites the work of others, but she often does so by using algorithmic methods whereby she writes the rules for a text that is then created algorithmically. In most cases she engages in plural forms of authorship and rewriting—writing with an *other* that brings the act of reading to the foreground of the creative process. In other cases, what surfaces are non-specialized and minor forms of interpretation, such as dendrochronology, stargazing and divination, that defy traditional understandings of authority. These and other forms of reading are often staged by way of scenes of reading that offer reflections on how the text we have before us should be read. As analyzed, these alternative forms of interpretation emerge as a means of circumventing instances of opacity or illegibility. To summarize, authorship comes into question when the subject becomes decentered and other forms of agency and, specifically, inscribing agencies are acknowledged.

At the same time, these works show different forms of becoming political in ways that differ from other modes of political literature that have come out of Latin America over the last century. In the first chapter, two points stand out: the first being a retrieval of an engagement with the sky that hails back to the Incas while, at the same time, shedding light on systems of surveillance and their imperative of legibility. Oloixarac's novel introduces an interruption in the flow of information and, in so doing, it exposes the mechanisms and infrastructures that make said flow possible. As an alternative, it proposes a form of reading that displaces its attention from the nodes of communication to the dark areas between them. The second one is the articulation of an urgency and an issue that goes unseen: the use of agrochemicals and their dangers. In dialogue with a long tradition of literature of "denuncia," the novelty of Schweblin's novel is that it tries to articulate a problem that is not only unseen, but also—in many ways—invisible. At the same time, it is a threat that defies logics of causality, which makes it such that the novel needs to create a device for rendering representable. The first part of the second chapter can be read in connection with the first part of the fourth chapter. Both Pron's short story and Wilson's novel propose forms of storytelling that coincide with forms of being in the world—what we would call an ethics. They propose an approach to the nonhuman that attempts to collapse its temporality and ecological disposition with that of the human. In the second part of the second chapter, I argue that the kind of legibility possible in Guzmán's *Atacama* opens it up for a radical de-hierarchization of forms of knowledge in terms of the access to a certain form of knowledge: reading the stars. It is in the convergence and articulation of these and not in a nostalgic retrieval of the shattered revolutionary dream where the

film's political potentiality lies; it is in the openness to everyone's equal rights to an engagement with the sky. In the third chapter, I propose to read Gerber in relation to testimonial literature. While the latter draws its legitimacy from an authentic narrative that is told by a witness, Gerber's work is not concerned with authenticity since it is the result of different forms of rewriting. Unlike testimonial literature, that aims to summon a truth by denouncing a situation of oppression, Gerber's work recognizes the multiple agencies that make up a plural world of many worlds, and it is through these assemblages that we can imagine a different future. It is therefore not concerned with witnessing but with incorporating a plurality of voices that are not in representation of a collective, but rather form an assemblage where each voice stands in for itself alone. I argue that this plurality and the disappropriation of rewriting allow for the emergence of a commonality akin to a form of communal reading.

These productions find themselves at the end of the world as an end of a form of its legibility. The end of the world marks the beginning of the planetary. The rules by which we are used to understanding the world no longer apply and we need new frameworks to try to grasp and explain it, which I have outlined here: forms of storytelling with the nonhuman, which imagine new ways of engaging with the nonhuman and help us imagine ways of living with it. These narratives show how storytelling is still relevant and urgent as a way of making sense of an ever-changing world. They also show how we need to reimagine traditional tools of storytelling in a way that better adjusts to a new world that is defined by new forms of engagement with the nonhuman. Since it is the displacement, by way of the nonhuman, of forms of reading and inscription which render the world illegible, necessitating formal

innovations to make new ways of storytelling. In this context, these fictions manifest the sustained relevance of storytelling as a form of sense-making. As defined by Hayles, “the primary purpose of narrative is to search for meaning, making narrative an essential technology for humans, who can arguably be defined as meaning-seeking animals” (2012 180). Even when these narratives engage the nonhuman at the different levels described, their purpose remains to be an articulation of meaning. Given these new forms of entanglement with the nonhuman, meaning making through narrative is as relevant as it has ever been at revealing its threads and showing us paths to navigate them.

APPENDIX



Figure 1



Figure 2



Figure 3

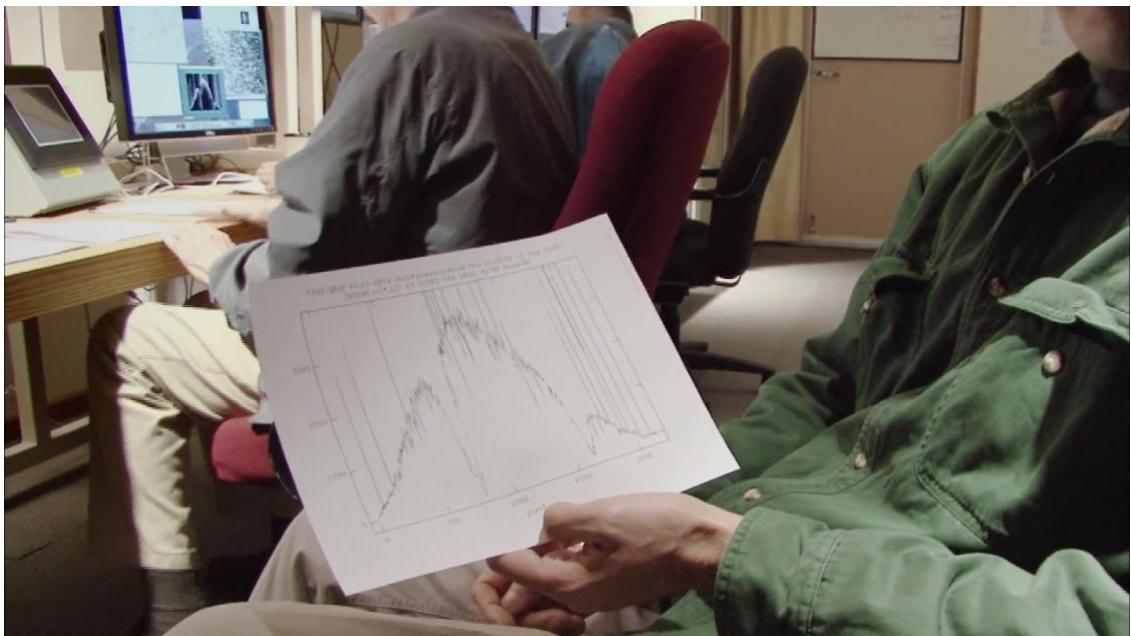


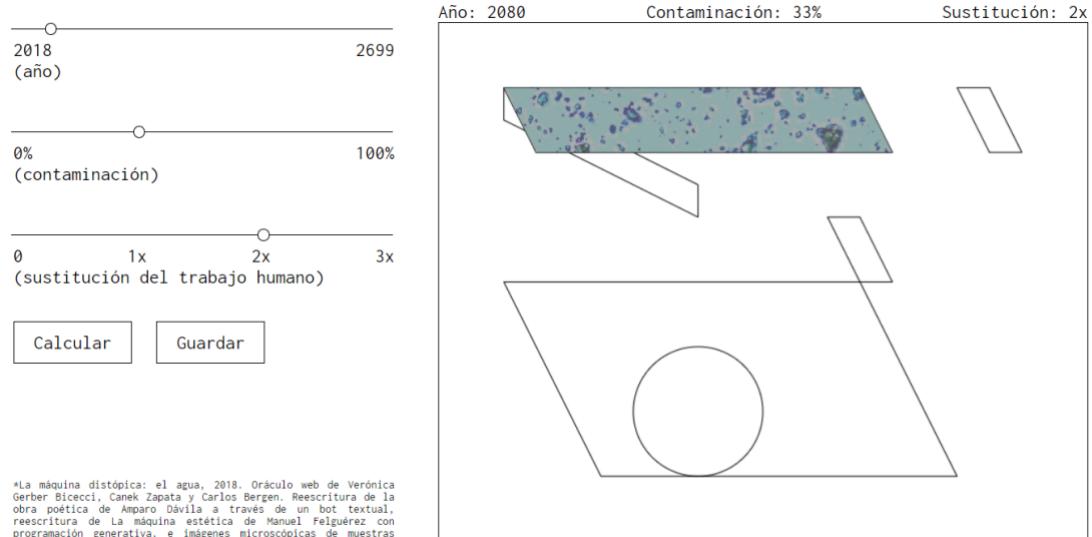
Figure 4



Figure 5



Figure 6



Cuando las compañías transnacionales vuelven otra vez, habitadas, y cruzan en procesión por el dicloroetanodicloruro de etileno.

Figure 7



Figure 8

Y el trueno me alcanza
Es profundo y paciente
Como un mueble grande
Que se arrastra
La cabina se hamaca
En la cima de la rueda
Hay una pausa
La noria vacila
El olor a ozono
A tormenta eléctrica
Me anima
No quisiera estar en otro lugar
Que este zoo abandonado
En esta máquina de carnaval
Ahora
Me hago consciente
Del presente
Como nunca antes
De un momento
Cristalino
La noria reanuda
Desciende
De este lado de la rueda
Puedo ver el océano
Remoto y gris
Se hincha y ondula
Truena contra la costa
Es un espejo
Una copia carbónica
Del sobrevuelo
De la tempestad

Figure 9

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