APOCALYPTICA

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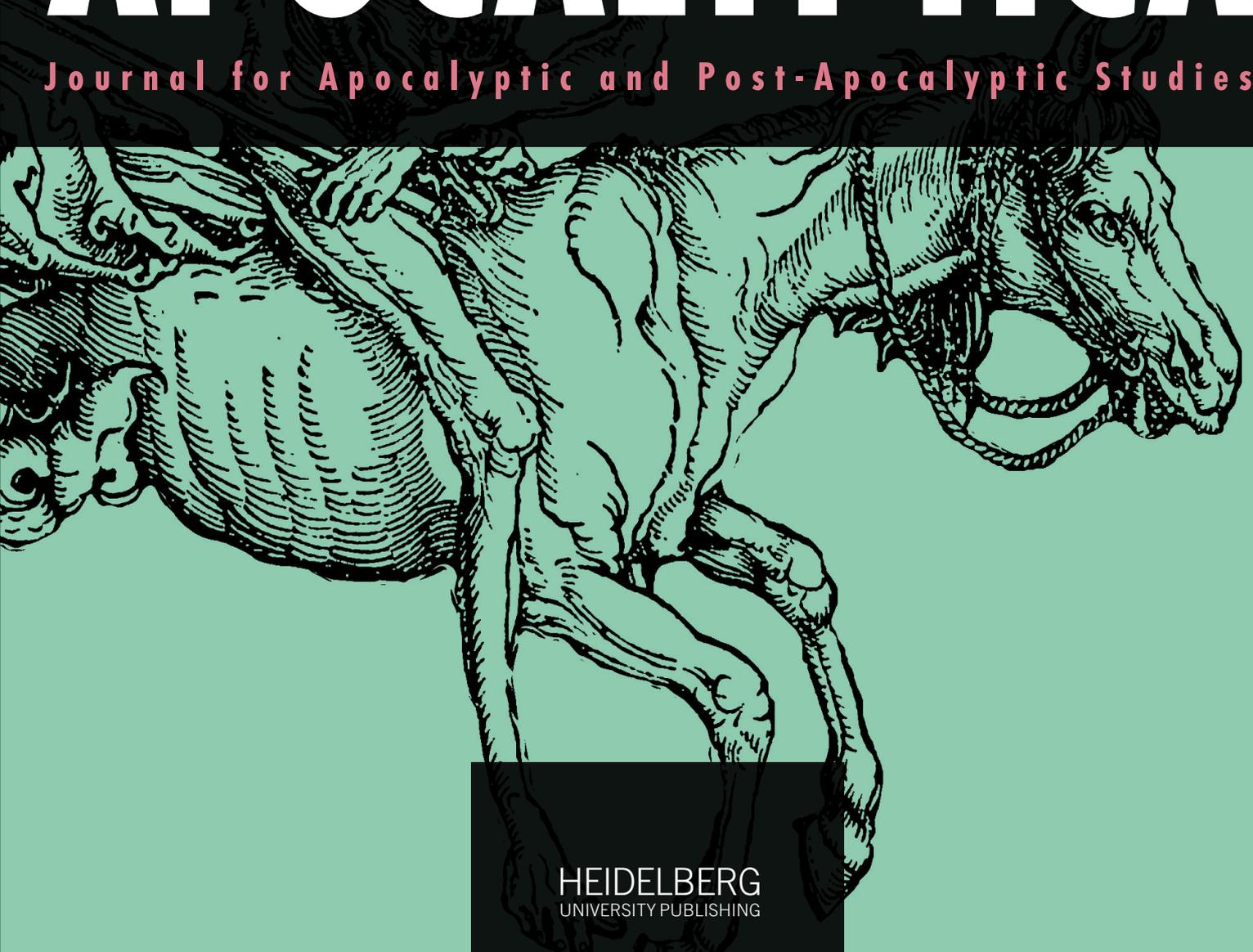
Apocalyptica

Apocalyptic Subjectivities

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Jenny Stümer Editor's Note

*A*pocalyptica's second issue advances our premise to explore apocalypses as imaginative practices and insightful speculations that tell us something about the state of past, present, and future worlds. The apocalyptic imaginary works in and as a response to a multitude of questions that interrogate crises, disasters, and cultural politics in the broadest sense; it is, however, also a way of coping with the limits of representability and experience, in so far as it provides expression, narrative structure, and form to unspeakable 'ends' and (sometimes) new beginnings. What we draw attention to in this issue then is the way apocalypses have been and are imagined, producing modes of engagement that are essential to the way we experience and shape our realities. We are interested in how the end of the/a world functions as a particular set of practices on the one hand and how apocalypses inform existing socialities on the other. We look at the way in which these apocalyptic imaginaries are projected—through images, stories, architecture, music, style, performance, art, etc—and how they enable moments of pausing and reflecting or instants of critique and challenge. Apocalypse as a genre of aestheticization thereby reveals itself also as a means of handling an overly complex and often disastrous present still trying to makes sense of past and future. Apocalypse provides the joints and junctures for this endeavour. Apocalypse is the story that unfolds.

The notion of 'unfolding' runs like a thread through this issue's contributions, weaving the articles together and showcasing the apocalypse as a multi-layered force that is not static in meaning but constantly emerging—both conceptually and empirically. However, the idea of the fold, also provokes a more intricate resonance with the apocalyptic project: namely with the unravelling of different apocalyptic scales and their particular intersections with a complex web of complicities that are shifting, inter-

lacing, and constantly un/covered. Notably, the word 'complicity' does not only indicate an association or participation in a criminal or wrongful act, invoking 'complying' and 'accomplice', but derives from the French word *complicare* which ultimately means 'to fold together', 'to twist together', or 'to unite intimately', pointing to meaningful complexity and complications. The articles in this issue, one way or another, reflect on these enfoldments of complicity, complexity, and complication in various ways, speaking to the culpabilities of various apocalyptic imaginaries in bringing about an end of the world or the reproduction of precisely those structures, orientations, and 'wrongful acts' that resonate with a number of world-ending catastrophes, those that have already happened and those that are still on the horizon. The issue hence explores the apocalypse as an unfolding phenomenon that is itself closely aligend with a number of cultural, political, technological, and philosophical debates about unresolved crimes and unmitigated progress. Central to this discussion is the problem of scale and the countless ways in which apocalyptic imaginaries are deploying a variety of cataclysmic catastrophes from nuclear war, to climate upheaval, colonial destruction, viral epidemics, terror attacks, space imperialism and bad haircuts. From disintegrating worlds to crumbling individuals and the complex (*complicare*!) ways in which these various disasters fold into each other, apocalypses disclose a larger story of making and breaking the world, over and over again.

In this sense, the contributions in this issue vary in scope and subject matter, but they speak to each other about lost worlds, complex culpabilities, and various techniques of survival; highlighting what may be best described as an emergent process of subjectification in the face of disintegrating worlds. These 'apocalyptic subjectivities' recognize the self as a possible domain of apocalyptic knowledge. In many ways, they describe the "crisis-shaped subjectivity" that Lauren Berlant identifies at the crux of an increasingly untenable relationship between ideological fantasies alongside political settings on one side and daily life besides ordinary experience on the other (2011, 54). However, they also reproduce a particular mode of relating to the end of a/the world as a moment of confronting identity. Apocalypse as a multifaceted story unfolds as a site of subject formation, of experiencing the end of the world (and the different politics this may entail)—from the controversial architect Paolo Soleri to contemporary musician Phoebe Bridgers—but it also projects the various ways in which these subjectivities are themselves enfolded with disaster, such as the survivors of Chernobyl, the AIDS virus or the Sarin terror attack in Tokyo. Apocalyptic imaginaries thereby make the unscalable tangible through individual performance and narration in theatre, literature,

photography, or song. They offer a site of mourning and recapitulation and sometimes master the art of giving in (as opposed to giving up).

The issue opens with Eliyahu Keller's article "The Scale of Apocalypse: Paolo Soleri's Nuclear Revelation," in which he examines the apocalyptic speculations of the late architect in their relation to imagining a nuclear future. Keller argues that architecture functions as a vehicle to visualise the magnitude of unfathomable destruction and simultaneously often aims to challenge future catastrophe. In this sense, to Keller, Soleri's work reads as a response to the historical threat of total nuclear warfare and thereby becomes a scale of historic and future apocalypse. At the same time Soleri's manifold musings appear to repeatedly come up against the limits of their own project. Keller's rich analysis pays close attention to the intricate unfolding of Soleri's apocalyptic imaginary in countless drawings, sketches, books, and plans, both for the city of the future and the architectural conquest of outer space, but ultimately uncovers that "the logic which once birthed world-ending weapons and enabled American expansion, is the same one that underpins the architectural manifestations of the American dream," whereby apocalypse reveals the very horizon of world-ending proposals that architecture inevitably advances and participates in. Seen in this light Soleri's visionary work, is itself enfolded with the man's own problematic subject position and his propensity to violent domination. In weaving these points together, the article highlights that Soleri's project (and perhaps architecture more generally) does not so much offer a promised future for a humanity in peril, but exposes, in Keller's words, "the limits of architectural imagination in the face of the unimaginable" and thereby reveals architecture's own complicity in bringing about the end of the world.

In his contribution "The Chernobyl Herbarium, the Nuclear Sublime, and Progress After an End of the World" Daniel Spencer looks at the joint project between philosopher Michael Marder and visual artist Anaïs Tondeur, *The Chernobyl Herbarium*: *Fragments of an Exploded Consciousness*, which Spencer describes as "a hybrid of philosophy, memoir, and visual art, aestheticizing the event and place of Chernobyl as an object of sublime reflection." Continuing the engagement with nuclear culture, Spencer's analysis employs theories of the sublime in order to examine the apocalyptic taxonomy of the artwork as rendering the uncanny futurity of the disaster ongoing, rather than producing a point of finality or closure. Spencer's argument works through theories of Herder and Kant alongside Timothy Morton's *Dark Ecology* as well as Marder's own discussion in order to consider the manifold ways in which art may both participate in and surpass the sublime's own complicity in fatalistic progress

and modernity toward the twentieth-century nuclear project. The discussion involves different artistic projects that resonate with the eerie photography of the herbarium in an effort to problematize notions of the 'end'. Instead, these artworks appear to inspire various forms of apocalyptic mourning, suggesting that if the end of the world has already happened, or is continually happening, the herbarium adds complexity to complicity, reproducing the apocalypse as an unfolding story and meaningful aestheticization. The disruption of temporality, produced in the moment of an ambivalent fixation in time, reflects the subjectivity of the survivor but also considers "the question of nature's exhaustibility" at the heart of an artistic ecology.

Mariarosa Loddo's article "Towards a Contemporary Poetics of Nonfiction about Disasters," develops the notion of testimony and witnessing, discussing a contemporary subgenre of life writing dedicated to the social constitution of disaster. Loddo is interested in the expansion of the testimonial scope by means of an apocalyptic narrative that places emphasis on individual fates but nevertheless constructs a communal experience that is shared by many. Looking at *And the Band Played On* by Randy Shilts, *Chernobyl Prayer* by Svetlana Alexievich, and *Underground* by Haruki Murakami, Loddo demonstrates that devastating experiences can be apocalyptic in the sense that they are delineating a life into the 'before' and 'after' of catastrophe, producing new forms of wounded subjectivities that cannot go back to the way things were, and who find expression in the content and narrative structure of the nonfictional works she analyses. In this way, Loddo also highlights a complex poetics of complicities with disaster alongside various responsibilities that find acknowledgement in the multi-perspectival intimacy of the accounts. The works under question hence play with scale and meaning of apocalyptic revelation, opening up interesting impulses about the political salience of disaster accounts, while pleading for enhanced attention to the complexity of social cataclysms through the prism of nonfictional layering.

Returning to the question of representation and developing the social poetics of the apocalypse, Carlos Tkacz unpacks the concept of the jeremiad in order to shed light on the ways in which apocalyptic narrative structures can bring past and future into close proximity with each other, repositioning the subject in relation to the resulting tension. His article "Uncharted Territory: Apocalypse, Jeremiad, and Abjection in Anne Washburn's *Mr. Burns: A Post-Electric Play*" explores apocalyptic subjectivities in the wake of postapocalyptic survival and by way of instinctively repeated social structures as generally reproduced in contemporary pop-cultural entertainment. Tkacz is interested in the way "the subject becomes the

zone of apocalypse" where past and present coalesce in such a way that individuals (alongside the social structures they sustain) are catapulted into an abyss of "bottomless memory." Rather than producing the hopeful postapocalyptic 'new' world promised by the jeremiad, the social structures emerging from this are painful and literal reconfigurations of past social elements. Tkacz's example traces this revelation through the compulsive enactment of old episodes of the cult TV show *The Simpsons*, demonstrating that rather than imagining productive futures, postapocalypses may get stuck in the obsessive memorialisation and materialisation of previous culture(s), replacing subjectivity with a simulacrum of the mediated past.

Furthering the discussion of apocalypse as both a narrative structure and imaginative repetition, Bren Ram's contribution sets out to examine the end of the/a world as a temporal arrangement that is both strictly non-universal and unevenly distributed. Looking at Jamaica Kincaid's famous novel *Lucy*, Ram's article "Lucy's Apocalypse: Placing the End of the World in Narrative" considers the structure of colonialism and its manifold aftermaths as "a world-ending practice" that puts into perspective the many worlds that have already ended in order to consider the finer mechanisms of the apocalyptic poetics of imperialism. Ram's insightful analysis focuses on colonial temporalities as world-ordering structures that continuously over-write the titular character's experience but also render the notion of the end as well as the idea of futurity aesthetic categories or poetic constructions. To Ram this insight suggests a kind of decolonial reading practice by which the notion of a white imperial futurity is productively undercut and the 'end', both in terms of historical relevance and narrative significance, perpetually loops around the unresolved past. In this sense, narrative itself can be post-apocalyptic without necessarily having to belong to well established genres of speculative fiction and offers glimpses at apocalyptic subjectivities that refuse to comply with the poetic project of imperialism.

Coming full circle, both in terms of discussing the disastrous legacy of imperial imaginaries around the globe and speculative survival through expansion into outer space, Inês Vieira Rodrigues article "From Techno-Hope to Vertigo-Trip: An Airpocalypse Seen from An Island" explores the notion of the techno-hope complex, looking at recent plans to build a European Space Agency facility on the Santa-Maria Island in the Azorean archipelago. Working through the infrastructural space imaginary as a point of "shortened vision" Rodrigues argues that the return of the space exploration fantasy in response to anxieties about the end of the world

disguises the absence of a politically viable project for inhabiting the earth or what the author calls "life in the monstrosity." Drawing on the concept of "airpocalypse" as the "loss of terrestrial coordinates, or an utter detachment from the ground," Rodrigues traces the historical revisionism that enables the embrace of space colonialism as glorious and crucially hopeful aspiration, ignoring the violent repercussions of the past in favour of resurrected futurity. In this sense, techno-hope as seen from an island envisions once more imaginative complicity in the end of the world, both in its oblivious dream about the future floating in space and the incessant ignorance towards a past grounded in material structures of violence.

Finally, the section ends with Emma Blackett's highly original article "Peroxide Subjectivity and the Love of (Knowing) The End" which takes iconic musician Phoebe Bridger's hair as a philosophical segue into discussing the apocalyptic politics of world ending systems of self-knowledge. Rather than considering ways of avoiding the end of the world, Blackett's contribution celebrates apocalypse by exploring the ambivalent comedy of "peroxide subjectivity," discerning an existential condition whereby the subject rather than working to present a pristine version of the self, embraces her knowledge of death and doom, of worlds ending now and in the past, and her own culpability in these forms of ongoing destruction as a point of subject formation. Despite lacking a corrosive political language to address her complex position as both wounded and complicit, the peroxide subject responds to this paradox by activating apocalypse as mode of relation without defending her innocence. In doing so the peroxide subject leans into "an ambivalent comedy that commits to nothing so much as her own finitude," and unfolds her condition as complex contradiction that embraces her lack of futurity as a form of self-debilitating politics common to white millennial feminism today. Blackett's analysis works as a chief reminder that apocalyptical imaginaries, particularly in their ability to suspend the future and unsettle ways of knowing the past and present, can inspire salient modes of living in complexity "so you can see the edges of the screen," apocalypse and all.

Altogether the articles in this issue resonate with what may be called an archive of the apocalyptic imaginary, keenly aware of world ending practices, experiences, histories and futures. This archive, with a nod to Michel Foucault (1982), does not transpire as a fixating template of what the end of the world means but pays witness to far reaching transformations and interconnections that provide nuance to the complex unfolding of apocalypse as a concept, a practice, and a mode of relating to a variety of worlds. The issue is hence an opportunity to think about different

forms of worlding, of re-narrating the poetics of the world, or altogether refusing to participate in established forms of temporality, sociality, and power; of "being in life without wanting the world" (Berlant 2022).

Complimentary to this discussion, we also include a creative essay that considers the practice of archiving as a means to confront a doomed world. Lena Schmidt's contribution "~~Pouring Lead~~, Melting Wax" is a highly personal contemplation of the German tradition of pouring lead into water on New Year's Eve in an effort to predict the future from the shapes created. Schmidt uses the ritual of melting as a point of critical introspection, (a philosophical sort of 'meltdown') as she experiments with the interweaving of apocalyptic scenarios into a kind of liquid narrative that mimics the runny foundations of thought and position unsettling the apocalyptic subject as well as her compliance with the end of the world.

Last but not least, Alexander Burton provides a book review of *The Future is Degrowth* by Matthias Schmelzer, Andrea Vetter, and Aaron Vansintjan, while Michael Dunn offers an engaging account of Heather Davis's *Plastic Matters*.

We hope you find much interest in these contributions!

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Eliyahu Keller

Paolo Soleri's Nuclear Revelation and the Scale of Apocalypse

If the desert purges the fake and accentuates the truth, as its devotees insist, then in architecture it seems to expose some very strange truths.
Reyner Banham, Scenes in American Deserta

The bomb is the Judeo-Christian gift to the planet.
Paolo Soleri, Hiro-Naga and the Ecominutiae

Abstract: Created against the backdrop of an imminent nuclear confrontation, the architectural drawings and narratives authored by architect Paolo Soleri offer unique insights into the relationship between apocalyptic imagination, the invention of atomic weapons, and radical visions of future architecture. This paper examines Soleri's architectural representations — including his less-known works created towards the end of the Cold War — theoretical writings, intellectual influences, personal letters and geography of operation, and places those within the nexus of a strictly American nuclear eschatology. Examined through this lens, Soleri's visions do not offer a promised future for a humanity at stake. Rather, they expose the limits of architectural imagination in face of the unimaginable, and reveal the complicity of architecture, however speculative, in bringing about the end of the world.

Keywords: nuclear, apocalypse, Soleri, architectural representation; Cold War.

Introduction: Speculative Architectural Imagination in the Nuclear Age

The development, use, and proliferation of nuclear weapons, and the ensuing fear of a nuclear apocalypse have been some of the determining factors in shaping the history of the twentieth century. As the images of the unprecedented devastation of Hiroshima and Nagasaki circulated after the end of WWII, they were coupled with the further development of nuclear and thermonuclear weapons, making the prospect of global annihilation all but possible. As government propaganda promoting the benefits of atomic energy dissipated, the initial faith in the promise brought by "harnessing of the basic power of the universe" (Truman 1945) was replaced with fears of an ultimate, world-ending war (Boyer 2013). These were often visualized through fictional narratives in popular media, in which America's greatest cities and their architectural icons were depicted in ruin and collapse. No longer presenting architecture as a symbol of capitalist progress (Willis 1995), these images imbued architecture with a meaning that stemmed from its destruction: an object through which the magnitude of an unfathomable apocalyptic destruction could be imagined, if not understood.

Responding to these fears, architects and planners formed various alliances with the federal government to promote solutions that would mitigate the anticipated destruction of such imagined attacks, from private and public fallout shelters to urban plans for dispersal as part of the establishment of a robust civil defense (Farish 2003; Light 2003; Monteyne 2010). Absent from the historical accounts of these solutionist approaches, however, is the way in which nuclear apocalyptic thinking influenced speculative architectural visions and images: a prevalent form of postwar architectural production and work (Klotz 1988, 398).

During the postwar decades, various architects, primarily in Western Europe and in the United States, began to produce speculative architectural propositions, many of which sought to critique and challenge modernism's technological promise (Klotz 1988, 410), and the failed belief that resulted not only in an impoverished built environment but also the unimaginable destruction and violence of the two World Wars. Few of these addressed the nuclear question directly, placing architecture, within a post-nuclear war context.[1] In the US, the birthplace of atomic weapons, the images of nuclear apocalypse permeated architectural imagination in ways that confronted the projective nature of architectural speculation with the representational paradox that characterized nuclear apocalyptic thinking. Namely, what is a discipline predicated on imagining the future

1 In 1966 Ron Herron of the British group Archigram imagined an ark-like 'Walking City' in a post-nuclear war world. In 1968, the Japanese architect Arata Isozaki, created a collage titled *Re-Ruined Hiroshima*, in which he reflected on the cyclicality of construction and destruction by embedding an already-ruined future architecture within a photograph of Hiroshima taken after the detonation of the nuclear bomb.

to do when faced with an event which poses a threat not only to cities and buildings, but the very possibility of the future; and one for which there is no precedent or referent (Derrida 1984, 23)?

One such case is that of the prominent postwar visionary architect, Paolo Soleri, who from the mid-1960s established himself as an ecological architectural prophet, and as an outsider and antagonist to mainstream architectural thinking. Whether at the time of its inception, in various consecutive occasions, or in the recent present, Soleri's work has been lauded for its ecological imperative, for its unique alliance with the technological discourses of its time, and for its visionary appeal (Lima 2003; Busbea 2020; Huxtable 1970). These studies, however, failed to examine a unique, though latent, aspect of Soleri's work: its professed eschatological character (P. Soleri 1981), and its relation to the contemporaneous history of nuclear culture and fears.

Using the lens offered by the field of nuclear criticism—a branch of studies established towards the end of the Cold War, which examines "the applicability of the human potentiality for nuclear self-destruction to the study of human cultural myths, structures, and artifacts" (Scheick 1990,4)—I seek to frame Soleri's proposition as a quintessential product of the nuclear age, and as a unique testimony of the historical conditions, which architectural imagination was responding to during the Cold War. Soleri's work demonstrates the ways in which speculative architectural representation acts as a register of its historical conditions and how it uniquely responds and incorporates those in its projections. Indeed, and however subtle the nuclear contamination of Soleri's work may be, this essay argues that it is essential for understanding the particularities of his apocalyptic architectural vision.

Almost by Accident

On February 20, 1970, the exhibition, *The Vision of Paolo Soleri*, opened its doors. Surrounding the crowds tightly packed in the Corcoran Gallery in Washington, DC were sprawling layouts offering a vision of the future. The lengthy sheets, some over ten meters long, were filled with drawings of compacted and organic-looking cities; architectural silhouettes that resemble rising mushrooms, an agglomeration of cooling towers, or flying saucers resting within a desolate landscape. When they approached the walls, the gallery's visitors would discover the drawings' intricacy and find within the plans, sections, and elevations some of densest city-architectures ever to be designed.

The show exceeded the expectations of organizers and audience alike. A retrospective exhibition of the architect's work to date, it followed the 1969 publication of Paolo Soleri's book, *Arcology: The City in the Image of Man* (P. Soleri 1969). To be certain, the Italian-born architect was not unheard of at the time. With a doctorate from Turin University completed immediately after WWII, Soleri began what would become an abrupt apprenticeship with the American master architect, Frank Lloyd Wright. Still, when he returned to the US in 1956, Soleri was still an "'outsider' virtually unknown both to the public and to the profession" (Wall 1970, 1). It was the explosive Corcoran exhibition that not only exposed his work to a wider public but solidified him as someone that, despite a clear architectural megalomania, the professional community could not ignore.[2]

The decades in which Soleri established himself as an architectural visionary were ones in which the physical and economic landscape of the US was shaped by a constellation of nuclear anxieties, plans for urban renewal and dispersal, and environmental degradation (McNeill 2010, 444). Indeed, though admittedly conceived in relation to an impending ecological disaster, his proposition also echoed the underground imaginations characteristic of the nuclear age (Williams 2008, 206–207). When Soleri had initially left the US in 1950, the Soviet Union had only recently tested its first atomic device. When he returned six years later, the threat was already thermonuclear. The consistent possibility of a world-ending confrontation, most radically approximated during the 1962 Cuban Missile Crisis, pushed the superpowers to sign treaties and agreements designed to prevent such cataclysmic turns (Burr and Rosenberg 2010, 88–89). The relative nuclear stability, continuing up until the early 1970s, was contradicted by a growing counter-cultural movement and a surge in urban and social unrest (Suri 2010, 470), all of which were part of Soleri's stated concerns. By 1970, and as crowds were lining up to see the architect's vision of an environmentally-sound architectural humanity, these too were seemingly winding down. The war in Vietnam was still raging, the Civil Rights Movement had formally ended, Apollo 11 had traveled to the moon and back, and the recently inaugurated Richard Nixon was moving the US towards a decade of détente. The Doomsday Clock, published by the Bulletin of Atomic Scientists to signal humanity's distance from nuclear oblivion, was resting at a comfortable distance: ten entire minutes from midnight and universal death.

With the events of the Cold War serving as a backdrop, Soleri was developing a philosophy of cultural and spiritual densification expressed through architectural means that would become his most significant contribution to architectural discourse. Presented in the namesake book,

2 In 1970 alone there were at least 21 articles about the exhibition, published in popular magazines and newspapers, such as *The Washington Post*, *The New York Times*, *The Wall Street Journal* and *Rolling Stone Magazine*, and in professional journals such as *Architectural Forum*, *Architectural Record,* and *Progressive Architecture*.

Arcology was meant to be more than a combination of terms or a new style (P. Soleri 1969, 23). Rather, as one of Soleri's avid followers noted, it was an evolutionary discipline which was the "result of the realization that at a certain point in the historical development of society, architecture becomes inseparable from ecology" (Skolimowski 1971, 35).

For their creator, arcologies were meant to be "of such miniaturizing force as to alter substantially the local ecology in the human direction" (P. Soleri 1969, 15). Meant to "take the place of the natural landscape inasmuch as it would constitute the new topography," these ultra-dense architectures were designed to contain "all the elements that make the physical life of the city possible" (15). A vector of human ingenuity consolidated into architectural form, these radically interior environments would sustain their own microclimate, while affording an "uncluttered and open landscape" outside their enormous walls (13).

The megalomaniac scale of Soleri's intentions fostered an array of reviews, many of which described the proposition in sublime or biblical terms.[3] A relatively late review was written by the American geographer Edward Higbee with the heralding title, *Soleri: Plumber with the Mind of St. Augustine* (Higbee 1971). An outsider to architectural circles and a geographer concerned with American agriculture and conservation (Sears 1970), Higbee was a fitting figure to reflect on Soleri's vision. Observing the aftermath of the explosive exposition, he noted those critiquing Soleri to be representatives of a "fearful" culture that is "beset with social anxieties" (Higbee 1971, 18). For the critics, Higbee remarked, urban density, intense social interaction, and human diversity were reasons to be alarmed (18).

The prophetic undertones of Soleri's project were not lost on Higbee, who, like many others, offered a hagiographic view of the work. Ada Louis Huxtable, for instance, cast Soleri as a modern-day Cassandra and framed the architect's utterance to be a truth so virtuous and shocking that it can never be believed. For Huxtable, Soleri was part of a lineage of disregarded architectural visionaries, and a prophet to whom "we have not been listening" (Huxtable 1970, 118). Higbee, on the other hand, foregrounded the quasi-Christian eschatology which permeated Soleri's architectural philosophy by equating him to St. Augustine; suggesting, however subtly, that the architect was in the process of creating his own City of God.

In its conclusion, Higbee's review provided a revelation that offered a contextual—though perhaps inadvertent—link between Soleri and Augustine. If the eschatological worldview of Augustine's divine city was formulated in response to the sack of Rome in 410 CE (Dods 1871, x) Soleri's vision, Higbee suggested, was also created in response to an urban cataclysm. It reads:

[3] For instance, *New York Times* critic, Ada Louis Huxtable, noted that a common observer sees Soleri's drawings "as pictures of cities, not as abstract schematics, and has one of two reactions. He either bolts in horror or he falls in love with the vision" (Huxtable 1970, 118). *The Washington Post*'s Wolf von Eckhardt, referred to Soleri as one of Noah's descendants who would "have us build Babels" (Eckhardt 1970).

> Soleri and his students are now at work on a pilot project in Arizona […] Arcosanti, as the project is called, will serve as a prototype of ecological architecture-an attempt to create an environment respectful both of unconscious nature and of self-conscious man. *According to recent information from Soleri, a reference block (center of the building) has been placed. 'Almost by accident, it happened to be Hiroshima day. The block is dated: 'Hiroshima, August 6'*[4] (Higbee 1971, 22)

Arcosanti, that destined project which Higbee wrote of, was Soleri's first and only attempt to build an arcology. Founded in 1970 on a 4000-acre piece of land 100 kilometers north of Phoenix, it has been in continuous construction for over five decades, and still stands at a far distance from the Babel-like structures envisioned by the architect. Yet however unfulfilled the built state of Soleri's prophecy may be, it does little to invalidate the context provided by Higbee. If we are to take this statement for the full gravity suggested, then all lines and measures leading to and from Soleri's desert city—better yet, to and from his proposition as such—are drawn from the nuclear crater in Hiroshima, and from the moment in which the Japanese city was destroyed.

An Enemy of Weapons

That Higbee would choose to mention this detail in passing, could be interpreted as a mere anecdote. Yet what appears to be a cursory reference is, in fact, one of many instances in which Soleri, in writing, theory, and drawing, reacted to the threat of nuclear bombs. The first record of such a response, however, was not part of an architectural project. Almost a decade prior to the supposed placement of the Arcosanti reference block, Soleri and a group of colleagues composed a letter addressed to the US President, John F. Kennedy. Part of his archival collection labeled today 'Soleri and War,' the letter was written by Soleri and sixteen others in response to the 1962 Cuban Missile Crisis.

Laced with emphatic Cold War rhetoric, the letter expresses not only Soleri's opposition to nuclear weapons, but the connections the architect formulated between atomic bombs and a certain idea of American life. Criticizing "NATIONAL HEROES," "SELF-RIGHTEOUS PATRIOTS," and "'BETTER DEAD THAN RED MAN' (OR CONGRESSMAN)," the authors wrote of a desire for an ethical life made impossible by "THE SCARLET SHADOW OF DISCRIMINATE (?) OR INDISCRIMANTE COLLECTIVE MURDER" (P. Soleri et al. 1963). Rejecting "THE PRIDE OF NOT BEING BUT

4 My emphasis.

AMERICANS," and situating themselves as "CITIZENS OF ONE WORLD," the authors ended their letter with a critique of nuclear conflict and of the political values which might lead to such an end by noting that they "ARE AGAINST THE AMERICAN WAY OF LIFE WHENEVER THE AMERICAN WAY OF LIFE IS AGAINST THE HUMAN WAY" (1963).[5]

These concerns soon found their way into Soleri's architectural imagination in a discreet yet revelatory manner. In one of the drawing scrolls prepared between January 1965 and April 1966, Soleri assembled a collection of preparatory sketches: plans, sections, and elevations of what would appear several years later in Soleri's book as the *Babelnoah II* arcology, as well as two drawings dedicated to *Asteromo*, an arcology designed for outer space (Figure 1). Held in a dampened room in Arcosanti, the sprawling sheet contains, in its upper left corner, a small drawing of a sectional elevation with the title *Babel II B*. In its center, and within the project's underground space, a red circle is annotated with the word 'power,' suggesting, as in many of his other drawings, either a fusion or fission reactor that would provide the arcology's energy. On the top of the main structure, two domes are drawn in light and faded lines. The lower, labeled ARCOLOGICAL DOME, is connected to the top of the towers and appears to be an essential part of the arcology itself. Above it, the ghost of a 'MICROCOSMOS DOME' is drawn with an almost invisible blue trace. Adjacent to the thin line and mixed within the damaging stains of water, an annotation reads in capital letters: 'H BOMB' BLAST (Figure 2).

However minor, this annotation is revelatory in that it demonstrates the literality in which this absolute threat is confronted by the architect: a powerful yet barely depicted dome that would shield Soleri's imagined humanity from the detonation of a thermonuclear device, itself represented through mere words. Whether an afterthought or the result of painstaking contemplation, the annotation is indicative of Soleri's need to face the threat's existence and, simultaneously, the utter inability to represent it properly. The rich imagination, made visible in the drawings of arcologies themselves, is brought to its absolute limits in face of nuclear devastation, leaving the architect with no possibility of representation other than a thin faded line and a few scribbled words.

Several years later, Soleri would address the nuclear issue in his *Arcology* book, once again, somewhat ambiguously. The book itself, enormous and "perversely designed," echoed in its size, the ambition of the arcological proposition and was divided into two sections (Pastier 1970). The first part was dedicated to elucidating the concept of arcology through short, repetitive and, at times, incoherent passages, as well as cryptic and mystical diagrams. The second part collected drawings of thirty arcologies
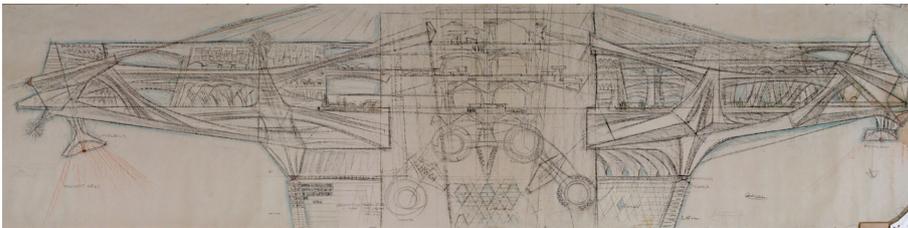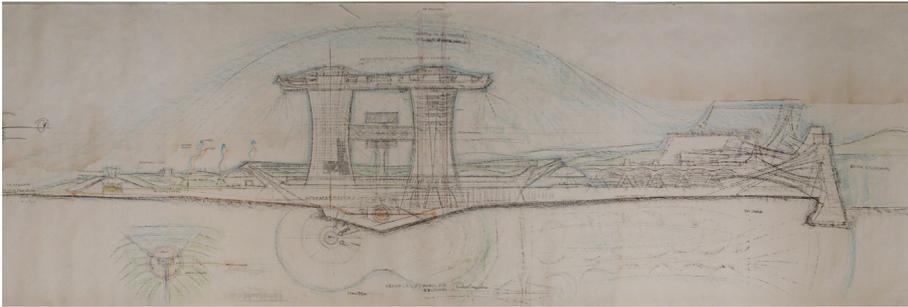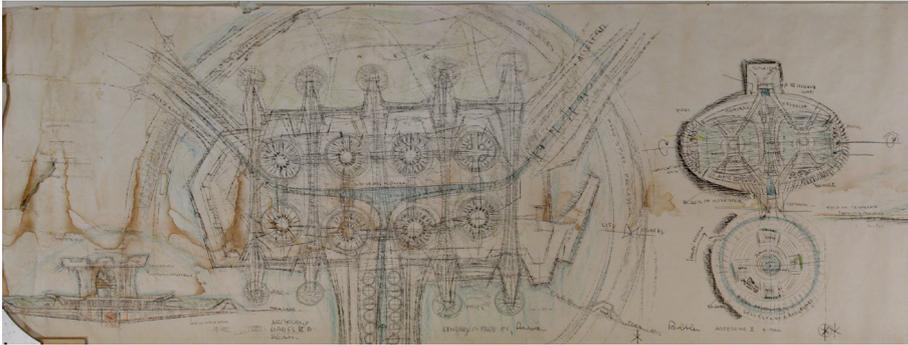
Figure 1. BABEL IIB — ASTEROMO, original scroll drawing by Paolo Soleri, January 1965; pencil, charcoal and pastel on paper; actual drawing 408″ long × 48″ wide, 1036 × 122 cm. Courtesy of the Cosanti Foundation.
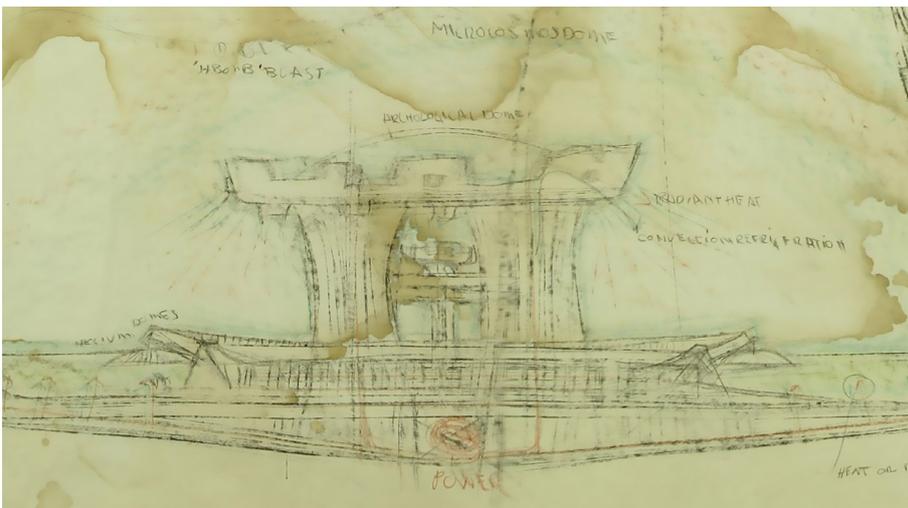
Figure 2. BABEL IIB — ASTEROMO, original scroll drawing by Paolo Soleri, January 1965; pencil, charcoal and pastel on paper; actual drawing 408" long × 48" wide, 1036 × 122 cm. Detail with notes of 'Microcosmos Dome' and 'H-Bomb Blast.' Courtesy of the Cosanti Foundation.

imagined in abstracted and universal locations. Each of these representations were accompanied by short texts explaining the specific context of each arcology and a set of quantities delineating their size, scale, and density (Figure 3).

Figure 3. NOVANOAH II Arcology, Population 2,400,000. Page 39 in "Arcology: City in the Image of Man", by Paolo Soleri, original publication 1969 by MIT Press. Courtesy of the Cosanti Foundation.

In the book's theoretical section Soleri mentions the nuclear issue twice, albeit dismissively. Referencing Los Alamos, one of the main sites serving the Manhattan Project, Soleri pointed to the nuclear town as an example of the communal and "very specialized undertaking" from which an arcology could grow (P. Soleri 1969, 24). Later, in a short passage titled *Arcology and Survival*, Soleri noted the ability "to pinpoint an orbital warhead on a square mile or so" as an imminent risk (31). Arcologies, with their "vast underground structure for foundations, anchorages, and automated industries will be good emergency systems," and will allow for an "almost instantaneous" evacuation (31). Still, since Arcology was predicated on a faith in mankind, Soleri noted, it should not be thought within a survivalist paradigm.

More than a decade later, the renewed rise of nuclear fears prompted Soleri's renewed address. In 1983, the Reagan administration began to move forward with its ambitious Strategic Defense Initiative (SDI), extending the Cold War's potential battlefield into outer space (Cosgrove 2001,

256). With his ear tuned to the news, Soleri followed suit and responded with a parallel projection towards outer space. This specific speculation, however, had its origins in Soleri's first extraterrestrial arcology, *Asteromo*, published in 1969 (Figure 4). Though graphically consistent, *Asteromo* stood out for its absolute lack of context and represented a culmination of the arcological proposition in visual, formal, and representational terms. Its radical lack of environmental reference, and a corresponding radical impossibility of life, afforded it as a kind of 'degree zero' arcology, cohesive from all views and directions, as it floats in the vast emptiness of space. Here too, Soleri rendered the interior of the proposed architecture to resemble a complex, highly compacted, and aesthetically-sound organic machine: perforated spaces drawn to resemble something not unlike the section of a spongy bone, or a kind of compacted architectural bomb organized within a shell that would further compress its energy.
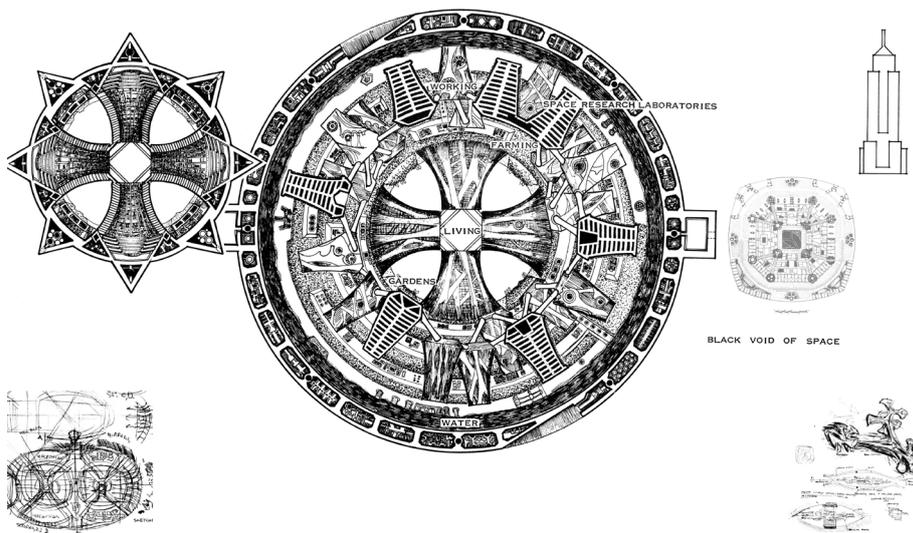
Figure 4. ASTEROMO: Space Arcology for a population of 70,000, 1. transverse section through housing, 2. transverse section through the city center; designed by Paolo Soleri. Page 118 in "Arcology: City in the Image of Man", by Paolo Soleri, original publication 1969 by MIT Press. Courtesy of the Cosanti Foundation.

The outer-space manifestation of arcological concept would be revisited in a short volume that Soleri later confessed to be "a reaction to Reagan's Star Wars" (P. Soleri 2003). The booklet, *A Space for Peace* (P. Soleri 1984), began with an epigraph citing an essay by the physicist Freeman Dyson titled 'Weapons and Hope.' In his text, Dyson's sought to situate "the problem of nuclear weapons, from a human rather than a technical point

of view," to explore "the historical and cultural context in which nuclear weapons grew," and to offer ways to deal with "the problem of nuclear weapons in the future" (Dyson 1984, 52).

Drawing from Dyson's analysis, Soleri offered a kind of simulation characteristic of the Cold War: a grim outlook influenced by the contemporary "violent and dread-oriented" thinking of space (P. Soleri 1984, 1). He depicted several apocalyptic projections, including "the thermonuclear nemesis of the 'God and Country First' aberration," or in the form of "a planet in the grips of a catastrophic climate change" (2). These scenarios served as the theoretical and historical background against which Soleri's *Space for Peace* was conceived: extraterrestrial habitations, or "fourth generation arcologies" that were meant to push the arcological logic to its absolute limits (20). Titled *Ecominutiae*, they were representationally different from the drawings of the earthbound arcologies, or even *Asteromo*. Abstracted, scaleless, and always in-formation, these artificial asteroids appeared as biological, cosmological, and technological hybrids, drawn further from whatever concept of human habitation one might be familiar with (Figure 5).

Figure 5. EUCLIDIAN: Space Arcology, Space for Peace Series. Original drawing by Paolo Soleri, 1987, pastel and crayon on black cardboard, size 32 × 40 inches, 81 × 101 cm. Courtesy of the Cosanti Foundation.

Presented by Soleri during a visit to the Hiroshima Memorial Museum in 1989 (Figure 6), the *Ecominutiae* were neither space stations nor settlements that mimic life on earth. Rather, they sought to represent a spiritual and ethical approximation towards a desired end through architectural form; an accelerating architectural meteor that would project both the creation and extinction of life. Whether in their physical organization or through their conception of "order-disorder," these life-bearing nuclei were conceived, according to their creator, as the direct inversion of smashed and split atom, and "at the opposite end of the Hiro-Naga destruction axis" (P. Soleri 2002, 75). Not unlike big bangs, split atoms, or speeding asteroids, they offered "the reordering of matter pushed at extremes of purpose and contour." (75). Yet these planet-like architectures do so inwardly, pulling Soleri's miniaturized humanity away from world-ending explosions, and drawing it a step closer towards its implosive end.

Figure 6. Paolo Soleri's visit to the Hiroshima Memorial Museum in 1989. Photo by Tomiaki Tamura, former director of the Arcosanti Archives. Courtesy of the Cosanti Foundation.

An Evil, Antilife Proposition

Soleri's ultimate move to the stars was not in search of other life forms, the deployment of satellites or weapons systems, or as part of an endless human expansion. Rather, his eschatological mission for architecture necessitated an environment so unforgiving that it would provide the spatial context in which humanity would have no option but to concentrate itself into a common purpose, and, in his own words, "miniaturize or die"

(P. Soleri 1969, 2). Through the radical miniaturization and complexification, outer space would not only accelerate his eschatology, but rather change the very essence of human condition itself.

Yet if the apocalyptic trajectory of Soleri's proposition ends in space, it certainly didn't begin there. Responding to Soleri's 1970 exhibition, the architectural historian Dana F. White noted as much by foregrounding what he observed to be Soleri's "Apocalyptic Vision" (White 1971). White, however, did not recognize the proposition itself to be apocalyptic, but rather used the term to describe the reality which Soleri was battling against. If humanity is to survive its "suicidal warfare" against the planet, White noted, it must "pull back to create a new order of human living, one based upon the principles of ecology and architecture" (White 1971, 79).

The first pages of *Arcology*, in which Soleri presented a manipulated version of Constantinos Doxiadis' world-city scheme, Ecumenopolis, demonstrate this approach. Despite the similarities in their shared understanding of the global urban problem, Soleri's saw Doxiadis' projection as a fundamentally "evil, antilife proposition," and redrew a variation of it that he labeled *The Map of Despair* (P. Soleri 1969, 2) (Figure 7). Placed alongside it was his own vision of the future; one that replaced sprawl with a network of condensed arcologies connected through minimal infrastructure, and vast swaths of untouched nature in between. Indeed, the cataclysm which Soleri sought to avert was one created through the continuation of a business-as-usual mentality. Despite the symbolic cornerstone of Arcosanti, his declared concern was not the annihilation of cities by atomic blasts, but rather their entropic decay through unrestrained suburban sprawl.
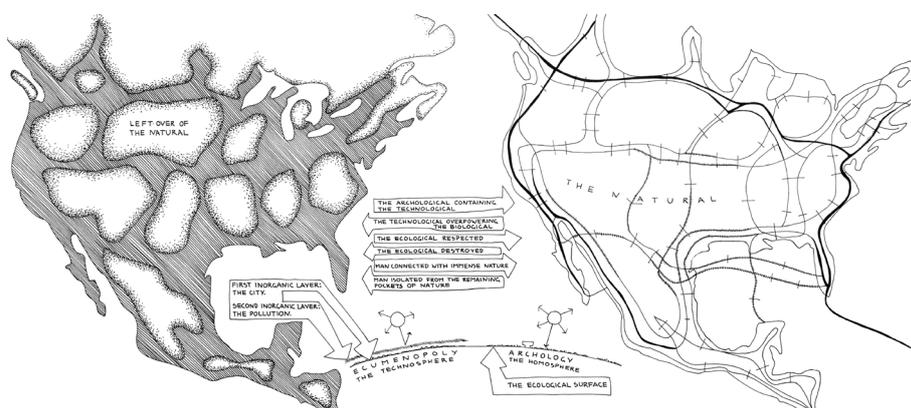

Figure 7. The Map of Despair created in response to Constantine Doxiadis' 'Ecumenopolis.' Page 2 in "Arcology: City in the Image of Man", by Paolo Soleri, original publication 1969 by MIT Press. Courtesy of the Cosanti Foundation.

And yet Soleri's proposition, perhaps overshadowed by its sublime scale, demanded an apocalypse; an end, which was regurgitated throughout his writings, and most comprehensively expressed in his 1981 book, *The Omega Seed* (P. Soleri 1981). In it, Soleri proposed to replace the traditional Judeo-Christian model in which the "father" or "Alpha" God precedes humanity, with a continuously created, evolving, and accumulated notion of a Son-God; not a God creating humans, but an ultimate seed created *by* and *through* humanity over time.

This eschatology was rooted in what Soleri called the "Urban Effect;" a principle that not only directed nature towards complexity and miniaturization but was expressed most visibly in the evolution of cities (P. Soleri 1981, 162–168). According to Soleri, the move from villages to towns to cities corresponded to a natural reality in which the more condensed an organism is, the more activity exists within its area. Within this paradigm, suburban expansion stood in contradiction to natural evolution. In Soleri's miniaturizing progression, cities were destined not to spread but to condense indefinitely until a final moment in which all of matter would turn into spirit.

Inseparable from this view of an evolutionary and implosive urbanism was the connection made by Soleri between suburban expansion, nuclear weapons, and his own proposition. If Los Alamos was "the quest for the ultimate explosive," he wrote in later years, "Arcosanti is the quest for the indispensable implosive" (P. Soleri 2008). Indeed, for Soleri it was the same "American way of life," criticized in the letter to JFK, which produced both the sprawling suburb and the explosive bomb; a logic which is indeed inseparable from the ideological foundations of American expansionism and the thrust of Manifest Destiny (Griffiths 2011).

Here then, Soleri's proposition becomes historically and discursively entangled with the nuclear referent. This was a moment in which high urban density—notably much lower than the one proposed by any of Soleri's arcologies—was equated with target attractivity in Soviet eyes. Within an urban discourse in which the American city was perceived as a "primary Cold War target," (Martin 2003, 7) there would be no better target than an unprecedently dense city, three times the height of the Empire State Building, and housing millions of human beings.

This entanglement is reinforced by the implosive character of Soleri's urban proposition. For instance, a diagram demonstrating his concept of miniaturization presented a diagonal hatch seeking to indicate the entirety of the planet's living and non-living materials; an unrepresentable array of what Soleri calls 'the possible.' (Figure 8) The planetary stuff is then 'miniaturized' through what will be revealed as the arcological process. This,

however, is not a smooth or fluid transition but one achieved through 'evolutionary pulses' and radical leaps. At the center of this process, and after all matter has been condensed, Soleri places a "final miniaturization": an "interiorized" universe that has turned into "pure form" (P. Soleri 1969, 4).
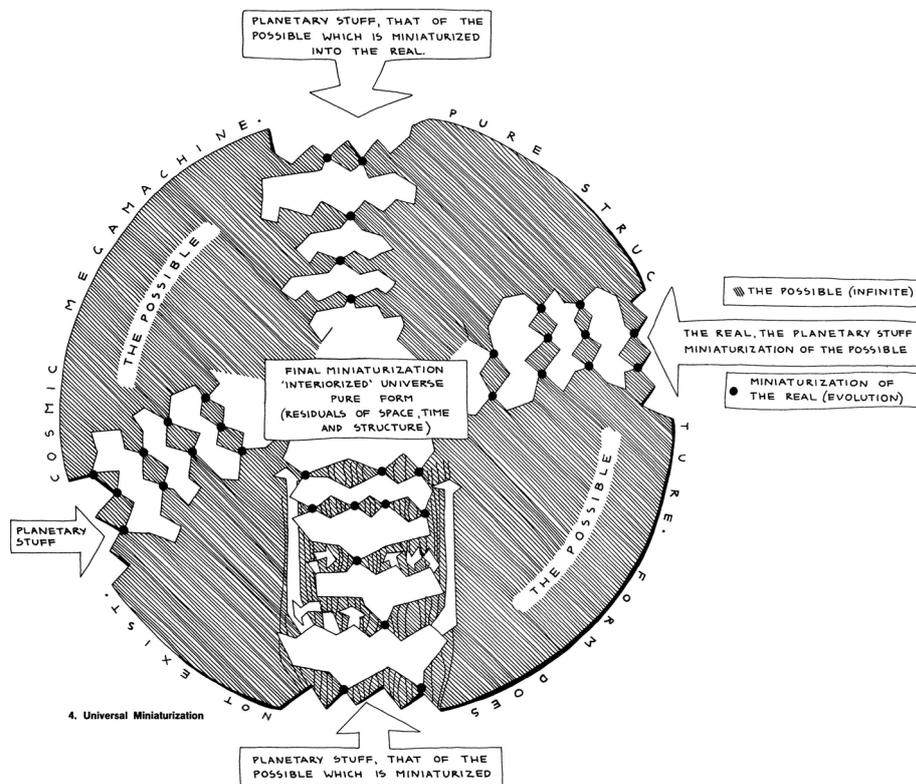
Figure 8. Diagram for Universal Miniaturization, Page 4 in "Arcology: City in the Image of Man", by Paolo Soleri, original publication 1969 by MIT Press. Courtesy of the Cosanti Foundation.

Implosion, however, is not simply the creative process suggested by Soleri but an equally destructive one; an inward collapse, a sudden failure, a violent interior burst that leads to self-destruction, and is, in fact, not that different from the mechanism used in the Nagasaki bomb.[6] Indeed, despite the supposedly progressive rhetoric that accompanied his proposition, at its root lies the realization that for one world or worldview to be created, a previous one must be destroyed. While the spiritual and physical mechanics of the universal processes he visualized were conceived against the logic of atomic fission, the result could be said to be fairly similar: a concentration of vast amounts of energy within a fortified structure, accumulated until its release would clear out space for the ushering of a new world.

6 While the Hiroshima bomb, codenamed 'Little Boy,' was built with a standard mechanism that would push two pieces of uranium against another to create a nuclear chain reaction, 'Fat Man,' the device detonated over Nagasaki, used an implosive mechanism: The plutonium charge at its center was surrounded by conventional explosives that upon detonation would compress the radioactive material inward until nuclear fission would occur.

The 'Bad Lands' of Arizona

The eschatological hypothesis underlying Soleri's proposition leaned heavily on the writings of the French Jesuit priest, philosopher, and paleontologist, Pierre Teilhard de Chardin. Indeed, the conceptual affinity between the two has been recognized not only by Soleri's contemporaries, but also in a recent reevaluation of Soleri's ideas. In his study of the interaction facilitated by design practices between humans and the environment in 1970s, architectural historian Larry Busbea argued against the common perception of the architect's work as mystic and noted that Soleri drew various postwar models of science and aesthetics, with Teilhard de Chardin's theories being a significant source. (Busbea 2013, 781). And yet, despite the important role that he assigns to Teilhard's philosophy in relation to Soleri's formulation of his own thinking, Busbea does not elaborate on the eschatological aspect of the priest's thought; an aspect which was conceived, in part, in relation to technological progress and the appearance of nuclear bombs, and is most apparent in a 1946 text in which Teilhard contemplated the invention of humanity's most destructive weapon.[7]

The essay, titled "Some Reflections on the Spiritual Repercussions of the Atom Bomb," begins with a factual mistake. In its very first line Teilhard replaced the location of the Trinity Test in New Mexico with the "'bad lands' of Arizona" (Chardin 2004, 133). Asking not to "discuss or defend the essential morality of this act of releasing atomic energy," Teilhard noted the breaking of the atom to be as important as the discovery of fire, the Neolithic agricultural revolution, or the invention of the steam engine (135). Pointing to the difference between the traditional use of natural materials and release of energy through nuclear fission, he emphasized humanity's newly acquired capacity to tap into "the sources commanding the very origins of matter;" a power so great that man "must think twice before committing some act which might destroy the earth" (135). Despite this inherent danger, the acquisition of the universe's intrinsic and potentially world-ending power was framed as natural and destined. Situating the invention of nuclear weapons as a scientific, and thus spiritual endeavor, Teilhard speculated that "what gripped the throats of those bold experimenters in Arizona," was not the thought of an ultimate, destructive power, but "the very worth of science itself" (136).

Though not discarding the possibility of the world's nuclear end, Teilhard framed this unique moment as one of many in the successive process of human collectivization and the planetization of the earth. Anticipating the language that Soleri would adopt when he would write of the city as "an organism of a thousand minds," Teilhard (P. Soleri 1969, 12) noted

the invention of atomic weapons to be a triumph "in which the largest number of brains were enabled to join together in a single organism." This was a "first bite at the fruit of the great discovery"; a proof that when humanity collectivizes it produces great inventions and through those advances the genesis of its desired end (Chardin 2004, 137–139). Indeed, Teilhard expressed little if any critique of what a future nuclear war might look like. Echoing the future posture of many military strategists, he foresaw the premise of Cold War deterrence and remarked that "thanks to the atom bomb it is war, not mankind, that is destined to be eliminated" (140). More important than potential destruction was "the vast field for conquest which science has disclosed"; one that would make a nuclear war not unwinnable, but rather obsolete.

Teilhard's inaccurate phrasing regarding the location of the first nuclear detonation ironically placed him in closer proximity to Soleri's chosen geography. His mistake notwithstanding, it is indicative of the history and perception of the American Southwest as a vast testing ground for both artistic and scientific experimentation throughout the twentieth century, with Soleri's case being just one, however distinct, example (Ponte 2003; Ponte and Trubiano 1996, 27–30). For Soleri, the desert was an ambiguous geography: a space in which the cultural values that he was battling against were made visible in architecture and urban development, and a paradigmatically harsh site that was both symbolic *of* and demanded *by* his arcological method. Indeed, the self-sustaining character of arcologies was in fact contingent on their existence within a context that would necessitate the complexification and miniaturization of human habitats.

The choice of this geographical location was not accidental, neither for Soleri nor the Americans who settled in sunbelt cities. The abundance of land and the postwar need for housing have made the American desert frontier into the perfect ground for expanding not only the American metropolis, but also its ideals (Duany 2000). Within this expansive and developed geography, Phoenix, the closest urban center to Soleri's urban laboratory in Arcosanti, was both a unique and paradigmatic case. After developing in the late nineteenth century as a touristic destination for health seekers, it transformed into a multi-centered urban metropolis representing the future of American urbanism (Luckingham 1989, 9).

Faithful to the biblical and evolutionary premise of his project, Soleri's desert was indeed a site of providential character, to which Americans withdrew from their decaying cities and seeking to fulfill the American dream. The result of this sacrificial urban exodus, as he referred to it, however, would be not the dream's achievement but its end.[8] The "catastrophic" nature of the American dream, consolidated and expressed in

[8] Soleri mentions this term in an undated text titled "The American Withdrawal from America," which I have located in his archive in Arcosanti.

the suburban home, was especially visible in its spread across dry geographies (P. Soleri 1973).

With the Earth's potential destruction on the one hand, and humanity's planetary departure on the other, Soleri's locus and the proposition which stems from it become inherently intertwined: a past frontier to which the US had already expanded, and the edge from which it exerted its power through the deployment of its nuclear threat into the desert and beyond; a landscape in which the continuous rehearsal of the world's nuclear end transformed the abstractness of the Cold War and the arms race into reality (Solnit 2014, 14–15). The entropic desert, evoking the promise of an extraterrestrial environment, suggested the end of terrestrial ones by offering a space in which humanity, through architecture, could accelerate itself towards a designed end-time.

Hubris and Isolation

In various cultural imaginaries and myths, the desert serves as a place of divination and foresight. Indeed, if there is a pervasive thread in Soleri's writings, theories, rhetoric, and drawings—in fact, throughout his entire proposition—it is that of prophecy. Here was a man who claimed to have found the answer to humanity's ailments and the key to the door behind which such answers are located (P. Soleri 1985, 54); who positioned himself within a geography culturally associated with prophetic utterance; and who had built a seemingly shining city on a hill with the sweat and conviction of others who heard within his words the ring of truth.

Such revelations, however, do not simply disclose a future of redemption. Rather, they are often shaped by egregious abuses of power, with Soleri's case being an example of a symptomatic condition rather than an exception to the rule. Promoted by those around him and furthered by the architect himself, his posture as a desert prophet is inseparable from a personal history marked with abuse. These transgressions were revealed by the victim of this violence; his daughter, Daniela Soleri, who shared her personal account in a raw and painful essay published online in 2017, several years after her father's death and as the #MeToo movement was gaining recognition and momentum around the world (D. Soleri 2017).

In painstaking detail, Daniela Soleri chronicles the sexual, verbal, and mental abuse she endured since the age of seventeen. In her essay she highlights the ways in which her father's work and grandeur were mobilized against her and used by him and his followers as an instrument for concealment and justification of his continued crimes. This cultivated

myth of greatness is founded, she observes, on the still-prevalent idea that to produce great work, one is not only entitled to sin and violence but is in fact expected, if not strictly destined, to perform such crimes; and that it is the individuals around those figures that must bear the cost of their horrific acts if we as a society are to enjoy the stained fruits of genius.[9]

Pointing to the connection between her own experience and the prophetic position her father assumed, Daniela Soleri notes that the "hubris and isolation that contributed to my abuse" were the same ones that made Soleri and his followers "incapable of sustained engagement with the intellectual and artistic worlds they felt neglected by" (D. Soleri 2017). While silence and complicity around Soleri might have contributed to his formation as a misunderstood visionary, for Daniela Soleri it was primarily his personality which was behind the atrocities he performed, and which relegated him to the role of a mystic looking at society's ailments from outside. Soleri's detachment from the conditions of reality, which he had cultivated for himself so carefully, thus afforded the privilege with which he could prophesize a universal cure for an abstracted and faceless humanity while simultaneously discarding, abusing, and violating the very real individuals who were closest to him and to the work.

Despite her own revelation, Daniela Soleri acknowledges the existence of a work in separation from its creator. Her father's proposition, she emphasizes, is not to be fundamentally discarded; most of it seems to her not "compromised by his worst behaviors" (D. Soleri 2017). Yet once the work is free from the admiration that sustained it—the very thing that justified it and made it into prophecy—its flaws, "ignorance, arrogance [and] narcissism" become ever clearer (D. Soleri 2017). Indeed, a prophecy can only be deemed one if there is a group of loyalists, however small, to hear the words and see the images; and it is the very nature of visions that offer seemingly egalitarian and redemptive futures, to ignore the cost necessitated by the ushering of a new world. Once the veil of revelation is lifted, and the social function of prophecy has failed, the work continues to exist and can face the question of valuation, this time on strictly different terms.

Soleri's then, is a particular case: a prophecy of the world's desired end, the very content of which is intertwined and stems from the privileged, supposedly cast-off, and isolated position he assumed, at times through violence. His willful withdrawal from society was reinforced by the choice of a mythical geography in which humanity would be forced into miniaturization and where visions of the future are supposedly disclosed; but it is also a place of concealment. In the case of Soleri, this vision is entangled not only with his own personal violence but with the sins of the past and

9 Daniela Soleri criticizes an essay by Charles McGrath, titled "Good Art, Bad People" in which McGrath notes that "the cruel thing about art — of great art, anyway—is that it requires its practitioners to be wrapped up in themselves in a way that's a little inhuman" (McGrath 2012).

present as well: a space in which the systemic exploitation of the environment is itself intertwined with material extraction, the dispossession of indigenous land and, most recently, the history of nuclear weapons testing and ecological collapse (Ramirez 1992; Johnson 2018).[10]

The Scale of Apocalypse

As already noted, Soleri fascination with the nuclear desert was not singular. In 1972, the American land artist Michael Heizer, for instance, purchased land adjacent to the Nevada Test Site, in which he would later produce *City*, a land art project conceived as a monument to outlast humanity (Goodyear 2016). In an interview about his art, Heizer noted it to be informed by the sensation "that we were coming close to the end of the world" (Brown 1984, 12–13). In the same conversation, Heizer emphasized the growing physical size of his projects, and recalled the revelation provided by his monumental work *Double Negative*: "I realized I had built something as big as a building, something greater in length than the height of the Empire State Building" (12). When asked about the architectural scale of his work, Heizer responded with a correction, stating that it is size rather than scale with which he is concerned: "Size is real, scale is imagined size. Scale could be said to be an aesthetic measurement whereas size is an actual measurement" (13).

If size is real and scale is imagined, what can be said of Soleri's representations of his architectural eschatology? While the size of Heizer's projects is translated into material, economic and physical quantities, the nature of Soleri's proposition is its existence as a post-projective imagination, making it unrepresentable without a scale against which it can be referenced, measured, or even understood. Namely, it is not only the enormous physical size of the arcological proposition but rather its existence within the unscalable timeline of the world coming to an end. While each arcology is accompanied by an enumeration of its objective metrics, supposedly making them legible to our imagination, each is equally fraught with an unmeasurable and unrepresentable scale of its existence and execution over time. If so, and if by Soleri's own repeated admissions, the drawings are not representations of arcologies *as* architecture to be realized in any faithful manner, then what is it that they actually represent?

A close examination of the drawings in Soleri's *Arcology* book may provide some insights. *Arcosanti*, the last of the thirty arcologies collected, is the only one which Soleri and his disciples have attempted to build. What is curious about its drawings is not the enormous distance between the

10 The vast majority of nuclear test were conducted in the Nevada Test Site, which is located on unceded indigenous land of the Western Shoshone.

representations and their built reality, but rather the effects of it being drawn with its building in mind. In fact, it is the only arcology that offers in addition to the elevations, sections, and plans, an axonometric section, as well as the only one which throughout uses the scaled figures of human beings; a supposedly unremarkable observation if one considers that while all other arcologies are drawn in a scale shifting from 1:2000 to 1:10,000, Arcosanti is drawn in a meager 1:1000.
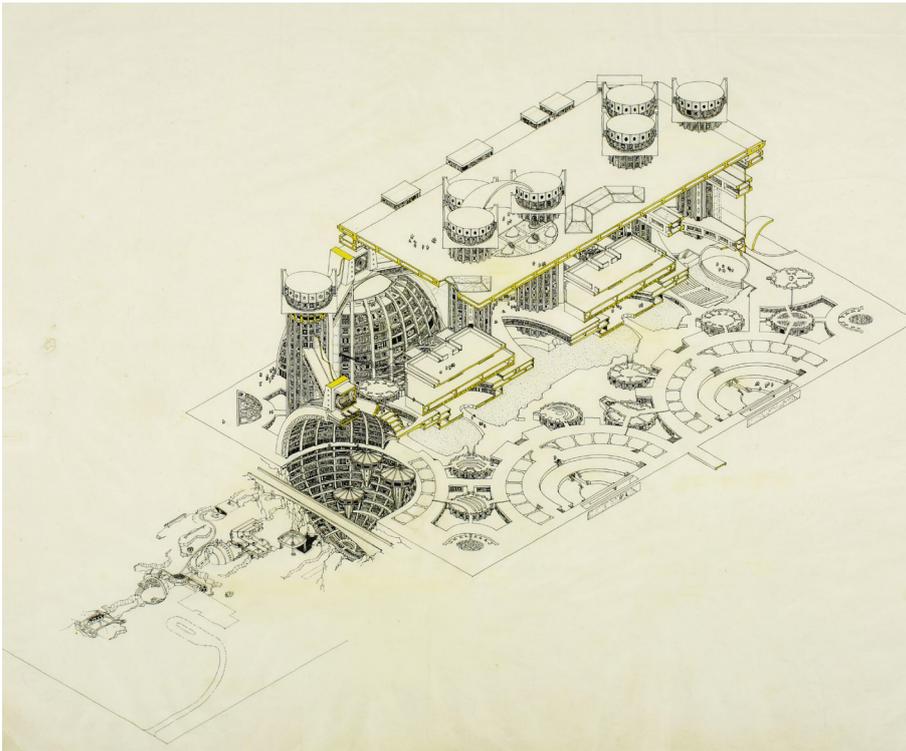
Figure 9. ARCOSANTI — isometric view, original drawing in black ink with some yellow outline, size 38 × 32 inches, 95 × 80 cm, by Paolo Soleri, 1968. Courtesy of the Cosanti Foundation.

The proposition's enormity notwithstanding, the populated axonometric situates itself as a first step towards the end (Figure 9); a parallel and supposedly objective view it represents the 'real' measures of things, without the subjectivity and symbolism associated with a traditional perspectival view, which Soleri never used. And yet to view these numbers as mere technical afflictions, would miss the mark of Heizer's semantic nuance and Soleri's representational challenge. Rather, it is here that the conceptual gap between drawing and building is exploited for its full capacity. The drawings, neither blueprints nor construction documents, are in fact approximations, false prophecies, a throwing-forward of something that is beyond Soleri's ability to faithfully represent. Not illustrations of Soleri's expansive imagination, they are testimonies of its limits, and the limits of

architectural imagination as such. What is disclosed then is not the future offered by Soleri but rather the immeasurable distance between humanity's ability to create instruments that could bring about the world's ending—whether through atomic bombs or architectural machines—and the inherent impossibility to imagine that very same end. What we are left with is a series of images purporting to depict the city in the image of 'Man,' without a single man or woman in sight. Not unlike the scenes of devastated cities after an imagined cataclysm, these destined equilibriums of a complex and thriving species, are drawn as desolate and emptied-out palaces, with humanity unaccounted for.

As it seeks to come closer to its conceptual ideal through drawn representation, the proposition's reality—or lack thereof—falls painfully short. When Soleri needs, for instance, to offer details of what this evolution-inducing environment might look like, the audience is left with mere textures, lines that do little to imply the possibility of habitation and annotations that bear all too familiar definitions such as 'housing' or 'commercial,' as if within these super condensed organisms such ordinary programs could still have place. Indeed, it is only in the later *Ecominutiae* drawings that these simplistic categories are absent, as Soleri attempts take a step beyond the conventions of architectural representation. No longer familiar or habitable, these arcologies withdraw from architecture and assume the appearance of something out of which life might be conceived or created: a final and last seed caught in the process of eliminating itself. Humanity or humans, as it stands, are still drawn out.

Against a Giant

Almost two decades after the placement of Arcosanti's reference block was noted for its nuclear connotation by Edward Higbee and while Soleri was declaring the projection of his architectural apocalypse into outer space, Reyner Banham, the architectural critic and empathic advocate of Los Angeles's sprawling urbanism, wrote an indictment of Soleri's divine city that by now should come with little surprise. Analogizing the desert arcologist to a nuclear scientist, Banham wondered whether Soleri was simply "another nut acting out his fantasy in the deep desert where the world cannot observe nor censor" (Banham 1989, 86). Questioning the promises and premises of Soleri's societal and urban reforms, he went on to compare Soleri's arcologies to the most destructive weapons humanity has devised. For Banham, Soleri's desert was not a site of prophecy but rather a "proving ground" in which the only visions made are

those of "an architectural tyranny (25,000 souls in one building!) as potentially harmful to human-kind as the atom bombs that were also tested in secret seclusion" and in the very same space (86).

However haphazard, the comparison is instructive, and the architectural truth supposedly exposed through Soleri's desert project, as Banham suggested, is strange indeed. Yet it is not simply the creative power of Soleri's will "exercised on a defenseless landscape," as Banham noted, which the arcological proposition reveals (Banham 1989, 86). Rather, it is precisely the impossibility of representing such an eschatological project, and the unwillingness of a critic such as Banham to accept this unrepresentability, that comes through the work; revealing it not as a city-organism, but as a constellation of fragments, histories, imaginations, and projections from which the end will inevitably be composed.

What if the settings for Soleri's arcologies were not the abstracted universal landscapes which he chose to portray them as, but rather the built environment which he sought to replace? Not the nameless desert, ocean, iceberg, or cliff but rather the skyline of America's greatest city, whose destruction was rehearsed and imagined during those very same years. Useful here is Soleri's placement of a scaled figure of a mute Empire State Building next to each of his drawings; a choice echoing Heizer's scalar comparison and one noted to make the soaring skyscraper appear as "a dwarf against a giant" when pegged against arcology (Skolimowski 1971, 35).[11]

Consider this juxtaposition then, in relation to the history of apocalyptic fictions visualizing and projecting the destruction of the Empire State Building (Page 2007); specifically, the very first depiction of a fictional nuclear detonation against a cityscape, published in the pictorial record of the nuclear tests conducted on Bikini Atoll by the US military in 1946 (Task Force One 1947) (Figure 10). Here, architecture no longer appears a symbol of progress or human ingenuity. Rather, it is the very thing which gives scale to the unscalable. Providing a space for reason to fall back onto in face of two forms of what historian of science, David Nye dubbed as the American technological sublime (Nye 1994, 96, 225), architecture becomes a measure of apocalypse.

A simple overlay exposes the interrelatedness of two contemporaneous ends: on the one hand, the world's nuclear ending, on the other, Soleri's implosive one (Figure 11). Considered together and under the shadow of nuclear fears, Soleri's desire to replace the world of sprawling suburbs, capitalist skyscrapers, technocratic institutions, and nuclear weapons with an implosive architecture becomes abundantly clear. Not unlike the comparison with the unimaginable scale of an atomic weapon,

11 In addition to Skolimowski, a 1970 NY Times review by S.D. Kohn noted Soleri's cities to be "scaled higher than two Empire State Buildings" (Kohn 1970, 29), while Jeffrey Cook wrote that for Soleri, "three-dimensional design is a thickness many times the height of the Empire State Building whose outline appears everywhere as a scale" (Cook 1972, 74).

UPPER. Dr. G. K. Green, of the Army Ground Group, studies a telemetered chart made by an Esterline Angus recorder on AG 76 AVERY ISLAND. LOWER. Composite photograph roughly comparing the Test B cauliflower cloud with New York skyscrapers. An exact comparison would be even more extreme. The cauliflower cloud, nearly two miles in diameter, would overshadow a considerable portion of Manhattan. It requires little study to appreciate catastrophic destruction.

Plate 32

Figure 10. Nuclear detonation over Manhattan. Plate 32 from United States Joint Task Force One. *Bombs at Bikini; the Official Report of Operation Crossroads*. 1947. Published by W.H. Wise.

the only thing that could provide a frame of reference to the magnitude of Soleri's proposition is the very thing which it seeks to erase.

None of this is to say that Soleri's arcologies were conceived as the architectural analog of nuclear weapons. Instead, when examined under the threat to future architecture—or better yet, to the future *of* architecture—it is the futility of his and any other proposition, be it suburb,

Figure 11. Collage prepared by the author combining Soleri's drawing for Novanoah II with the image of the nuclear detonation over New York as seen in Figure 10.

skyscraper or arcology, that is revealed. What Paolo Soleri's apocalyptic vision offers *as revelation* is neither a future filled with mushroom-cloud-like architectures, nor a prospect for a condensed humanity in space; our inability to construct such habitats notwithstanding. Rather, seen through the nuclear cloud under which his visions grew, his architectural end-visions reveal the intertwinements of history itself: that the violence exercised against the desert landscape — whether in the form of atomic bombs or their strange relative suburban sprawl — is the direct extension of the subjugation of both land and people under the guise of Manifest Destiny; that the logic which once birthed world-ending weapons and enabled American expansion, is the same one that underpins the architectural manifestations of the American dream, whether in the consolidated Empire State Building or the entropic landscape of sunbelt cities; and finally, that apocalypse is neither to be averted by architecture, nor countered, but rather a horizon that architecture inevitably advances and participates in, without acknowledging the cost. Against the seemingly ungraspable, unrepresentable, and unimaginable scale of ultimate beginnings and absolute ends, Soleri's architectural representations are the continuous inscription, and pulling towards oneself, of that end; the drawing of apocalypse.

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Daniel G. Spencer *The Chernobyl Herbarium*, the Nuclear Sublime, and Progress After an End of the World

Abstract: Philosopher Michael Marder and visual artist Anaïs Tondeur's *The Chernobyl Herbarium: Fragments of an Exploded Consciousness* (2016) is a hybrid of philosophy, memoir, and visual art, aestheticizing the event and place of Chernobyl as an object of sublime reflection, and offering a creative-critical account of the notion of art's utility after the end of the world instigated by the nuclear event. As an aesthetic project, *TCH* renders the futurity of the disaster as an ongoing process whose lack of finality or closure adopts the character of the sublime, mostly notably the Kantian formula of the sublime. Utilizing theories of the sublime—its assessment in Kant, Herder, and its contemporary influence in Morton's "dark ecology"—this paper argues that the book has the ability to surpass the restrictions of the sublime formula, namely what is recognized by Marder as the sublime's complicity in the nature of historical progress toward twentieth-century nuclear culture. The main goals of this article are to outline Marder's philosophical reading of the sublime, to assess this reading through case studies of individual "artworks" or art-like objects found in the Chernobyl Zone, and to ultimately reassess the uncanny, lingering futurity of the nuclear event not as the 'end of the world,' but as progress toward a future aesthetic model in which humanity's supposed rational hierarchy over nature is exchanged for the hesitant optimism of future ecological art.

Keywords: Chernobyl, aesthetics, sublime, eco-anxiety, eco-trauma

Michael Marder, philosopher of vegetal life, and Anaïs Tondeur, a visual artist whose works embrace environmental themes, collaborated on an interdisciplinary book about the effects of the Chernobyl nuclear disaster of 1986, titled *The Chernobyl Herbarium*: *Fragments of an Exploded Consciousness* (2016).[1] This text, published digitally and in print by the Open Humanities Press, offers thirty fragmentary reflections, one for each year since the event leading to the book's publication. The work is a hybrid of philosophy, memoir, and visual art, aestheticizing the event and place of Chernobyl as an object of sublime reflection, and offering a creative-critical account of the notion of art's utility after the end of the world; that is, as a suture to the wounds of personal, communal, and ecological trauma caused by the nuclear event. Chernobyl (the event) and the Zone (the place) are *not* artworks of the same kind as those found at any major museum in the West, nor are they of the same quality as artworks *about* the event. Yet as an aesthetic project, *TCH* renders the futurity of the disaster as an ongoing process whose lack of finality or closure adopts the character of the sublime, mostly notably the Kantian formula of the sublime. Utilizing theories of the sublime—its assessment in Kant, Herder, and its contemporary influence in Morton's (2016) "dark ecology"—this article argues that the book has the ability to surpass the restrictions of the sublime formula, namely what is recognized by Marder as the sublime's complicity in the nature of historical progress toward twentieth-century nuclear culture. The main goals of this paper are to outline Marder's philosophical reading of the sublime, to assess this reading through case studies of individual 'artworks' or art-like objects found in the Chernobyl Zone, and to ultimately reassess the uncanny, lingering futurity of the nuclear event not as the 'end of the world,' but as progress toward a future aesthetic model in which humanity's supposed rational hierarchy over nature is exchanged for the hesitant optimism of future ecological art.

Philosophy and Memoir

Marder's contribution to *TCH* includes autobiographical and philosophical writing on the impact of Chernobyl. Each meditation reflects personal details, as well as historical, scientific, and theoretical discussions of the implications of the disaster. Outside of *TCH*, Marder's work synthesizes continental, political, and ecological philosophy, with an emphasis on phenomenological approaches to the autonomy and subjecthood of plant life in relation to humanity. Philosophers, he claims, allot to plants a "generally

[1] Forthwith *The Chernobyl Herbarium* will be referred to in the abbreviated form: TCH.

inferior place in their systems; [use] their germination, growth, blossoming, fruition, reproduction, and decay as illustrations of abstract concepts" (Marder 2015, xiv). What results from this work, and the approach to Chernobyl at hand, is a system which places plants at the center of its thinking, employing vegetality as the fulcrum between humanity's engagement with nature, and the subjecthood of a living, breathing, and *feeling* world, whose human objects adopt the character of vegetal embeddedness.

 TCH's account of Chernobyl is a study of the contact between humans, plants, and largely 'unknowable' scientific forces, namely the power of nuclear radiation, which maintains distance from the observers who attempt to cognize it. "What is there to say," Marder writes, "about exposure to radiation that cannot be seen nor smelled nor heard nor touched nor tasted?" (Marder and Tondeur 2016, 24). Language about the event fails to capture its visceral and spectral character. Take, for instance, the situation in rural Belarus following 1986, where folk were cautioned from foraging for berries and mushrooms, a readily available source of nutrition and leisure, to avoid contact with radionuclides embedded in the vegetation and soil (Kuchinskaya 2014, 43). Rather than heeding these warnings or following local protocols to boil meat and test milk before consumption, most simply learned to live with the ghost of fallout, where the everyday reality of poverty and hunger outweigh the potential long-term effects of radiation poisoning (Kuchinskaya 2014, 51). How does language begin to capture the grim, lived reality of those who persist to this day in and around ground zero of the disaster?

 In the case of nuclear events, those who articulate language about the phenomenon no longer appear to exert control over the materials of nature or of words. Marder suggests that "Those of us who have been in its eerie neighborhood"—in the presence of radiation—"have resembled objects, onto which certain effects have been inflicted, as opposed to subjects in control and aware of what is going on" (Marder and Tondeur 2016, 24). Lacking observational or physical agency, human subjects appear to conform to passive inaction, adopting a more plant-like state: unable to quickly react, or to describe the status of one's being, one has much more in common with vegetal life.

 TCH's text also serves as a mode of philosophical mourning, where the subtitle of the work, '*Fragments of an Exploded Consciousness*,' speaks to the radical and irreversible changes of catastrophic events. Marder conceives of this change in terms of ecological trauma manifesting as a result of personal radiation exposure, agricultural effects, and geopolitics. The interest in aesthetics, and the reticence to subscribe to a moralizing account of the dangers of a nuclear future, align this approach

with Timothy Morton, whose most recent dictum that "all art is ecological" speaks most clearly to a privileging of artistic ideas through ecology (Morton 2021). Marder's philosophy also recalls the work of Peter C. van Wyck, whose research untangles the hidden aesthetic logic behind nuclear iconography (i.e. the history of official symbols denoting nuclear waste and radiation contamination) and the proposed Waste Isolation Power Plant (W.I.P.P) 'monument' near Carlsbad, New Mexico, deep in the American West. Both Morton and van Wyck serve as appropriate interlocutors to Marder's unique blend of aesthetic thinking and exploration of ideas which shape our (mis)understandings of the impacts of nuclear culture, both of which will return in the analysis to follow.

Marder's rhetoric is also closely allied with ethnographic storytelling which has, perhaps more than any other work on the subject, shaped international consensus on the tragedy of the event. Belarusian journalist Svetlana Alexievich's *Voices from Chernobyl* (1997), the first account of its kind, collects stories of those directly impacted by the explosion: residents of Pripyat, the families of the firefighters, the so-called 'liquidators' of the Soviet military responsible for the long cleanup in the years which followed, and 'normal people' who have suffered the lingering effects of fallout. Rather than retelling the stories of others, Marder tells his own: he was on a train in 1986 when the smoke was rising from the ruined reactor; he was shuttled, along with countless other children, to the shores of the Black Sea, in yearly trips on a medical mandate "sponsored by the healthcare system of the U.S.S.R.," as a sickly child to alleviate potential sources of allergenic irritation. All the while, he was unknowingly exposed to fallout radiation which, months after the event, had dispersed into the atmosphere (Marder and Tondeur 2016, 16). This story is personal, but not unique, and Marder's biography is but one voice in the panoply of stories which encompass the lived reality of the disaster, a reality which continues to unfold within the lives and memories of those directly and indirectly affected by its looming presence.

Photogram and Herbarium

The entwining of philosophy and memoir is but one half of *TCH*, the other consisting of ghostly renderings of plants found in and around the Zone. Tondeur, Marder's collaborator, is a French artist-researcher whose work is centered around ecology. According to her website biography, this work crosses the fields of natural science, anthropology, myth, and new media with creative and critical experiments exploring modes of perception

beyond the human/nature divide. This multi-disciplinary practice spans photography, video art, performance, and installation, though her contribution to the book is focused on the realm of photogrammetry, the art of creating photographic prints by placing objects on paper (usually light-sensitive material, or chemically coated photographic paper) and exposing those objects to light. The result is a negative image of the object, bathed in shadow and as translucent or transparent as the exemplar (and the intensity of light) allows.

As an art form, photogrammetry is nearly as old as photography. Several forms of photo-chemical experiments predated the first photograms, with the first true photographic negatives appearing during the 1840s. An early exemplar, Talbot's *The Pencil of Nature*, featured a wide array of negatives, ranging from delicate lace to large buildings (Talbot 1844–46). The first major application of nature photogrammetry was Atkins's *Photographs of British Algae: Cyanotype Impressions*, whose images were produced "by placing wet algae directly on light-systemized paper and exposing the paper to sunlight" (Atkins 1843–53). Atkins's book is hailed as a fusion of scientific inquiry and creative expression, where the white outlines of sea plants, foregrounding the blue pages which hold their images, appear as almost dreamlike translations of their aquatic originals (The Met n.d.).

The photogram also saw a resurgence during the 1920s, with the work of Modernist artists, including the Surrealist Man Ray, who called his own versions 'rayographs,' capturing mundane objects in abstract and quasi-three-dimensional light, and eventually adapted the technique to moving pictures in *Le Retour à la Raison* (1923). It was undoubtedly photogrammetry's relative simplicity (and aleatoric ethos) which drew Man Ray to the form. In the photogram, mundane items like scissors and coiled wire appear as uncanny simulacra whose photographic negatives are so much like objects of daily use, yet distant from memory in their new light. What results, at least in Man Ray's *rayographs*, is an alienation of the everyday, where the familiar is made unfamiliar through a spectral medium, where the everyday object, visible in the light, is rendered uncannily invisible in shadow.

For Tondeur, whose usage of the photogram is undoubtedly tied to nineteenth and twentieth-century predecessors, the everyday plant-life of the Chernobyl Zone is presented and de-familiarized (from its original biological and geographical context) through this process, and further alienated from its photogrammic double through radiation in the flora, which 'appears' to make its mark on the surface of the image. Each photogram lists the plant's radiation level in microsieverts/h, a unit used to measure

the effects of low doses of ionizing radiation on the body, though each image's halo-like luminescence has more to do with the character of the medium than it does with the presence of radiation. Nevertheless Marder, commenting on Tondeur's art, considers this phenomenon in light of the Greek roots of *photogram*: a *"line of light,"* in contrast to the *photograph*, or *"writing of the light."* Rather than merely capturing the essence of an image on photographic paper, as is the case with the photograph, the photogram is "etched, engraved, engrained, [and] the energy [...] both reflected (or refracted) *and* absorbed" (Marder and Tondeur 2016, 14). Tondeur's photograms respond to this trauma as "visible records of an invisible calamity, tracked across the threshold of sight by the power of art" (Marder and Tondeur 2016, 14). The photogram is a 'detonation,' mirroring but not wholly replicating the event. The peaceful, or at very least neutral images of flora, do not immediately recall the violence of the corresponding disaster. By releasing "explosions of light trapped in plants," as Marder suggests, Tondeur recalls the intensity of Chernobyl without replicating its destructive power, harnessing science, history, and art to attempt once more to render the allusive, un-thematizable nature of the event (Marder and Tondeur 2016, 14).

Along with photogrammetry, Tondeur's contribution recalls the hybrid scientific and creative genre of the herbarium, an invention of the Renaissance, which first appeared in the early sixteenth century in the work of the Italian botanist Luca Ghini. Though scholars of his day relied almost entirely on classical sources for their knowledge of plants, Ghini emphasized fieldwork and observation of live specimens. This teaching experience inspired Ghini to create a device which would allow his pupils to study plants during the winter. Thus, he developed the *herbarium*, which in its simplest form is a book of pressed plants which have been dried and glued to pages, and are accompanied by a taxonomic description (see Thiers 2020, 13–24). Later, in the eighteenth century, Carl Linnaeus, the 'Father of Taxonomy,' innovated the form of the herbarium further, opting to mount his plants on large sheets of paper, which were then catalogued in cabinets for easy accessibility. Linnaeus's model is still widely used today, across academic research and museum institutions, to catalogue specimens according to taxonomy (Thiers 2020, 20–24).

In its conceptual depth, the herbarium presents the opportunity for the intense exploration of natural phenomena in relation to aesthetic or philosophical principles. One may arrange the herbarium according to one's own rules, inclinations, or tastes, in order to craft any narrative about its materials. It is often the case that when placed together, the plants of a region begin to tell a tale of their own, and where the logic

at first seemed haphazard and chaotic, it is sometimes revealed to be profound. Elsewhere in *TCH*, Marder refers to the plant photograms in context to the "autonomy" of vegetation, stating that plants often have their own "meaning" which is absent of their use toward human ends. This autonomy manifests in the photogram, and in their arrangement in *TCH*, as an "excess of meaning," an escape from the cultural and scientific application of the plant toward an image which speaks to its "visual and semantic" vibrancy. The radioactivity which these photograms so hauntingly mirrors might also be conceived as a visual reminder of a plant's unseen agency. In light of the un-thematizable, it is possible that plants, in an arrangement instigated by human creativity, create their own meaning absent of human ends, pointing toward the possible unknowability of nature when presented to human eyes. In other words, when we discover traces of this meaning in what was once considered random or chaotic, we are slowly approaching the possibility of understanding that logic through contemplation of the philosophical sublime, though troubled by the very history that concept embodies.

Kantian and Nuclear Sublime

Marder's engagement with the sublime requires additional investigation into Kant's expansion of the concept, as well as its contemporary application in its engagement with nuclear culture. Immanuel Kant did not invent the sublime, nor was he the first modern thinker to separate it from the categories of beauty and the beautiful, though his formulation of the two major classes of the sublime, the dynamic and mathematical, have served as the touchstone for modern philosophical debate to follow. In the *Analytic of the Sublime*, the second book of *The Critique of Judgment* (1790), Kant outlines the notion of *limitlessness*: that which is sublime "cannot be contained in any sensuous form, but rather concerns ideas of reason, which, although no adequate presentation of them is possible, may be aroused and called to mind by that very inadequacy itself which does admit of serious presentation" (Kant 2007, 75). Natural phenomena, like the sea or the awesome storms which often rage upon it, are not sublime so much as the *feeling* which arises upon reflection of the event. Chaos, furthermore, excites the sublime; disorder and desolation, the contemplation of that which is both absolutely great and that which transcends "every standard of the senses" in meditation of the monstrous or colossal, approaches the alluring and abjective quality of the sublime (Kant 2007, 81–83). What is observed in the Kantian sublime is the boundless strength

of human spirit against the powers of nature, for that which is as vast as the abyss of the sublime still cannot swallow the vastness of imagination. Kant conceives the sublime as giving observers the strength "to discover within us a power of resistance of quite another kind [and] which gives us courage to be able to measure ourselves against the seeming omnipotence of nature" (Kant 2007, 91). Nature, as a whole, is sublime insofar as it grants human imagination the power to envision reason as that which can comprehend nature and, in comprehending, eventually surmount it.

Marder's approach to the sublime is primarily in reference to Kant and his influence in Western thought. Other approaches, however, are useful in considering the sublime nature of the nuclear event. Kant's contemporary, Johann Gottfried von Herder, whose work is lesser-known in English-language scholarship, proposed a vision of the sublime more consistent with Marder's critique of modernity. In opposition to Kant, Herder not only denied the gap between language and reality—a gap which, in Kant's philosophical system permits him to envision the purposeless mechanism of nature, and therefore the "purposeless purpose" of aesthetic objects—but he also rejected the mentality of modern progress and the critical project of modernity (see Schulte-Sasse 1990). Herder's diagnosis of the Enlightenment's emphasis on self-identity, and the reorganization of society away from the expression of the sublime imaginary and aesthetic imagination, toward the 'socially-inspired ideals' of modern progress and the centrality of the machine as the organizing principle of life and education of everyday people, suggests a link between the Kantian sublime's insistence upon the separation of nature and culture and the centralizing ethos of industrial modernity. In following Herder's sublime, nature no longer appears 'out there,' far removed from human life, nor 'in there,' as crucial aspect of human identity, but existing purely as the fuel for expansion. Had Marder turned to Kant's critics to demonstrate the flaws in this approach to the sublime, its complicity in modernity's industrial, and later nuclear, project would be much more apparent.

What Herder and Marder appear to share in their assessments of modernity is the inducement of a kind of 'false sublime' in which the fear, abjection, and eventual surmounting of the phenomenon is instigated rationally or intentionally. Marder, who clearly sees the sublime formula as the imperceptible, in which such events signal the disintegration of human control (i.e. reason and intellect), suggests that the only way to make sense of such events is through the attempt to mediate (and thereby aestheticize) the event. Such mediating actions, however, have the potential to transform the event into the rationale for further exploitation, either for technological or personal aims. 'Dark tourism,' for instance, can be

interpreted through this lens as an attempt to re-make or re-experience the sublime through extreme activity, or at the very least, through a kind of second-hand, false-psychological intensity. Visits to sites of nuclear trauma, like Chernobyl, often do not serve to heal the wounds of that event, but to perpetuate that trauma through the personal drama of the false, 'nuclear sublime.'

Frances Ferguson, in tracing contemporary developments of the Burkean and Kantian sublime, formulates a concept of the nuclear sublime in relation to ideas about nuclear power and warfare which reached an apex in the late-1980s. The terror and fascination with nuclear power vacillate between the harrowing admiration of its amenity (in the form of affordable energy) and the terrible unknowability of its potential ("in the effort to imagine total annihilation" after the bomb), resulting in a "mislocated" threat which cannot summarize the human response to the potential of radiation's influence (Ferguson 1987, 7–8). What manifests after a nuclear disaster is often a vicarious pull of "pleasure and terror," as evidenced by the trend of nuclear tourism to such places (Goatcher and Brunsden 2011, 128). Adorno's assessment of this conceptual admixture has proven highly useful for Ferguson and other scholars who have diagnosed Chernobyl's abject allure. For Adorno, the sublime has the potential to trace the residue of unimaginable horror in cultural memory — the twin-forces of fascism and the Holocaust — and for others, it can bring tragedy into focus, almost knowable in mundane terms, as a site for travel and tourism. Photographs of a visit to a site of disaster "can link us back to what has disappeared from view and grasp [...] what has become unknown" (Goatcher and Brunsden 2011, 129). What is required for observers to understand art is the "experience" of works which are "formed in themselves according to their own logic and consistency as much as they are elements in the context of spirit and society" (Adorno 1997, 349). Theory of the nuclear sublime takes Adorno's dictum a step further, suggesting that such experience is not passively witnessed in the observation of art, but actively *remade* through visiting sites of trauma, and by embedding oneself and one's own experience within the history and lived reality of those places and events.

The possibility of personal embeddedness raises the question as to whether experience truly reveals the unknowability of the nuclear sublime, or rather cements its enigmatic nature as an inseparable part of an impenetrable whole. Such attempts to arrive at a sense of the meaning of tragedy through amateur photography are deeply personal expressions of subjectivity and aesthetic experience (Goatcher and Brunsden 2011). Perhaps it is the case that photographs allow a subject to embed their own

complex subjectivity in the midst of the nuclear sublime as the tourist's own version of Caspar David Friedrich's enigmatic and ubiquitous Romantic painting *Wanderer Above the Sea of Fog* (1818), though this does not answer the question as to how such an assessment of the nuclear sublime might actually challenge the notion of sublimity altogether. It is the case in Marder's philosophy, however, that the sublime begins to show its cracks, and makes its fallibility known through the domineering force of radiation's intolerable unknowability.

According to Marder, Chernobyl has rendered Kant's notion of the 'dynamically sublime,' the sublime which a sense of movement that is far enough away from the human subject as to not directly affect it. The dynamically sublime relies upon the notion that immensity can be rationalized in the human mind at a distance, understood to lack the depth that imagination affords. Reason or imagination, however, cannot truly triumph in the face of the reality of nuclear fallout. Marder contends that:

> Radiation brings to naught our detachment from a threatening force and annihilates the independence of a viewing subject standing in opposition to a viewed object. Reason evinces its impotence. More than that, the imperceptible nature of radiation elevates it higher than the sublime. Absolute and free—in the sense of being untethered from any given source of danger—terror intrudes into our psychic lives. In the fallout zone, everything is dangerous, not only around but also within our bodies. We are not separate from the threatening reality, "caused" by and residing in us (Marder and Tondeur 2016, 66).

Comfortable distance, bolstering the illusion of proximity from the event, may define the Chernobyl tourist's photograph, much as it characterizes a Romantic *Rückenfigur*, but radiation's reality negates the distance between observer and phenomenon. The sublime can only thrive in a situation where the observer maintains a comfortable distance from the horror of the phenomenon—after all, sublime painting can embolden one's sense of adventure in the face of such horrors, seen from the comfort of a gallery or computer screen—but with radiation, untouchable in its presence, unseen in its dispersal, and uncertain in its truly long-lasting effects, the distance both recedes into the background and forcefully emerges into the foreground at a seemingly infinite rate, obliterating the observer's sense of temporal and spatial distance. Without this distance, sublime judgment crumbles, and one is left with the dark ecological reality of uncertainty.

Evidently, there exists a lack of a clear distinction between the nuclear event and its aftermath. Such events—literal explosions—correspond to an overbearing force and massive distribution of the technological sublime. These events, and their effects, are human-made artefacts inducing the sublime event. But this event's ending is never clear. Lingering radiation persists as an uncanny phenomenon, and not all victims of Chernobyl, of any nuclear accident on record, died in the days and weeks following the event. This temporal blurring is itself another instance of the sublime—in this case, the dynamic sublime—not as a false sublime engendered by disaster tourism or television drama, but a true, weird, aesthetic unknowability which appears to haunt the Zone itself. The uncertainty of this ending is, ultimately, one of the core symptoms of its historical trauma, which poses the question: if one cannot identify where the event *ends,* how can one move *beyond* it?

Ultimately, Marder's revision of the sublime through radiation and nuclear culture relies on the relationship between his ideas and Tondeur's plant photograms, which are themselves artistic representations of real-life objects, once living, and now preserved in the negative image of light. As Kant stresses, sublime objects are not to be confused with their real-world doubles. The sublime does not exist in nature, but in art, and in aestheticized consciousness of phenomena, therefore radiation, in itself, does not take on the character of the sublime, but only in our cognizing of it, and only in relation to its representation in art or aesthetic consciousness could it ever be presented as an object of sublime contemplation. Tondeur's photograms are artistic representations of the place and event of Chernobyl, where radiation or the "nuclear sublime" makes itself known (or, at the very least, knowable) through the medium of art. Tondeur's photograms do no "represent anything," but merely catalogue radiation, not imitating life but, rather, recording "life's vulnerability, amplified by the failure of reason to protect us, on the hither side of the beautiful/sublime divide" (Marder and Tondeur 2016, 66). In the face of such forces, the indomitable power of the human will can resemble the crumbling landscape of the Zone itself, once a promising and pioneering future, and now a ruinous remnant of a lost future uneasily foretold.

Dark Ecology and Radiation as Miasma

Visions of lost futures recall the territory tread in ecological thinker Timothy Morton's (2016) 'dark ecology,' an approach to nature which is neither bright nor entirely bleak. The path toward this mode of thinking is fraught

with doubt, danger, but also a sense of hope, though hope informed by the knowledge of decay. One must travel through several stages of this doubt, the first of which is nihilism, a depressive reaction to crisis; the second stage is uncanny, in the sense that Freud describes the phenomenon as deeply unsettling, oddly familiar, and potentially soul-shaking in its revelation of hidden impulses; and the third, dark ecological awareness that doesn't outright accept ecological destruction but embraces the 'weird,' the aesthetic domain that Western thinking generally wishes to avoid in favor of the 'known' (see Freud 2003).

The primary concern of *Dark Ecology* is *how* an acknowledgment of the uncanny and the weird aspects of ecological awareness—not to mention the increasingly fragile lived reality of human and non-human species in climate crisis—will heal the wounds of ecological destruction. Morton's answer is a question, or a series of related questions: how do we live considering destruction? How do we 'think the self" as a member of the human *species*? How do we conceive of the relationship between humans and nonhumans? How do we live *with* the Anthropocene, *with* hyperobjects—the objects and ideas, often created by humans, which radically outlive all human life—and *within* the porous boundaries of human and nonhuman space? Dark ecology makes room for ambiguity and darkness, for doubt and uncertainty, in light of radical individual and communal change. The question (and the answer) is then: how does the subject become constantly present in the face of forces which seek to subsume it?

One answer is to grant philosophical weight to those concepts which modernity has thoroughly discredited: magic and the supernatural (taken together as the transcendent) are interrelated categories of mythical thinking which, through positivist discourse, have been thoroughly scrubbed from the palimpsest of modern thinking. But like the palimpsest, which retains traces of the words once written on its surface, modern thinking recalls the mythical underpinnings of its structure. This is precisely why Freud, an exemplar of modern positivist thought, could not rid himself of myth in his analysis of dreams: the traces of mythical consciousness are interwoven into the fabric of the human mind, providing the logic upon which the sleeping mind makes sense of the waking world (see Freud 1999). The world of light provides opportunities for the forgotten past to make itself known, whereas darkness kindles the ever-burning flame of the mythical past. To attune oneself to the forces of the world which attempt to consume it means to grant weight to these categories, to acknowledge them as vital aspects of contemporary thought which have not disappeared under the domineering hand of modern progress.

The logic of radiation, whose influence is thoroughly modern, also behaves, at least conceptually, as a transcendent phenomenon, and looking to the mythical past for an exemplar, radiation most closely resembles the miasma, a medical term referring to a type of airborne disease-causing pollution. Versions of miasma theory proliferate in classical and medieval sources, though it is in the work of the fourth century B.C.E. Greek physician Hippocrates, the so-called 'Father of Medicine,' where it is articulated in a medical capacity to refer to the aerosol spread of contagion. Contemporary scholarship has revealed that 'miasma' was not originally conceived as a medical term in ancient Greece. Its root is in the Greek verb μιαίνω ('to stain, pollute, or be unclean'), and its first uses as the noun μίασμα are found in Greek tragedy "in connection with the stain of blood spilt in a crime" (Jouanna 2012, 121). Miasma also has roots in purification rituals of ancient Greek religion, where adherents must go to great lengths to purge either the corporeal or cultural body of its contagion (see Parker 2001). Miasma first had its use in religious, mythological, and artistic contexts, taken up later by Hippocrates and his successors in the form of 'miasma theory' as an explanation for disease. In any discussion of its cultural and etymological lineage—such is the case with many other scientific concepts now taken for granted as pure scientific discourse—myth, and the translation of myth into artistic consciousness, must play at least a starting role.

Simon Ryle turns to ancient miasma theory, in the form of Sophocles's *Antigone*, as a way of providing a conceptual model for understanding the interrelationship between humans and nuclear waste in the Anthropocene. Ryle's "poetics of miasma" reassesses Sophocles' engagement with miasma—in the form of Antigone's refusal to submit to the laws of the *polis* and Creon's authority—through the lens of Morton's eco-poetics and the notion of the 'Away,' a concept denoting the general abstractions of waste management in Western thought. Ryle, quoting Morton, evokes the image of the "U-bend in the toilet" as a symbol of "the ontological space that [takes] whatever we flush down into a totally different dimension called the *Away*, leaving things clean over here" (quoted in Ryle 2018, 42). Creon's attempts to curb the potential "pollution" of the Theban *polis* engendered by Antigone's desires to honor the body of her fallen brother Polynices—a traitor who, according to Creon's declaration, cannot receive sacred burial rites—is for Ryle an instance of proto-ecological thought.

Creon's prohibition anticipates the contemporary 'chthonic obsession' evidenced in the nuclear waste disposal facilities of Yucca Mountain, in Nevada, and Onkalo, Finland. A genealogy of pollution might not begin

with Creon's proclamation, though it necessarily features his extraordinary efforts to contain the miasma of political and ritual transgression, wholly out of sight and mind from the contemporary world. To maintain waste in its own 'zone' is to keep its polluting influence at bay, at least until a greater solution can be devised for its storage. The monument-like status of nuclear disposal facilities is shaped as miasma-containment, each 'zone' a polluted space to be protected, and maintained. Even the prime symbol of Chernobyl—the so-called 'sarcophagus' erected over the ruins of the fourth reactor, and its updated New Safe Containment enclosure—borrows the prototypical symbol for the burial of the dead. The separateness of nuclear waste will perhaps forever signal a world that is fundamentally abstracted from the daily lives of citizens until, of course, one begins to ponder the long future of its decay. Such spaces are living testaments to the degree that myth and art still shape contemporary consciousness, as such that aesthetics might be the only philosophical, effective equipment which we possess to assess the longevity of radioactive materials. Aesthetics, then, becomes a kind of healing process for the trauma of nuclear events. So, to consider the aesthetic character of such events is a critical step in the healing cleansing of this miasma, as it is central in Marder's process of philosophical and poetic mourning in the various geographical and conceptual 'case studies' of *TCH*.

The 'Myth' of the Red Forest

The Zone has adopted the character of a monument and the quasi-aesthetic distance of a museum space. Chernobyl and Pripyat stand witness to the period of late Soviet architecture and monument construction which preserved in its ruinous state, is a rare sight that undoubtedly fuels cultural fascination and the increasing interest in official and unofficial tourism to the Zone. Yet, as Darmon Richter writes in his book on Chernobyl 'stalkers,' many of the sights in schools and hospital wards, where children were reported to have scattered their toys as they left, are little more than the cheap effect of post-disaster pageantry. He writes:

> There were monuments of plausible truth along the way (miniature, self-contained stories, like the upright piano abandoned on the seventh floor of an apartment building, too big for the elevators, too heavy to drag down the stairs), but for the most part, the interior spaces of Pripyat looked like bad taxidermy (Richter 2020, 54).

Richter dubs this form of observation the 'Pripyat myth,' one which has inspired so much distanced reflection on both the aesthetic value and historical tragedy of the ruins which still remain there. Marder and Tondeur's attempt to aestheticize the Zone in *TCH* does not seek to reinforce this lie—neither in rehearsing the same rehearsed still-lives of abandonment found in Pripyat's schools and hospitals, nor in blindly supporting the political program of nuclear energy—but instead actively reconfigures it toward ecological reflection, positioning its tragedy and capacity for mourning as a future step toward dark ecological attunement.

Rather than focusing on the remains of commercial and residential spaces, now invaded by the presence of largely unbridled wild growth, Marder turns his attention toward the so-called 'Red Forest' (Рудий ліс), a 10-km² area surrounding the former power plant, which absorbed massive amounts of radiation in the days which followed the initial explosion. Normally, the forest still measures 50–100 µSv/hr, though it can reach as high as 1,000 µSv/hr during extreme heat and periods of forest burning, when fire can denature the wood into gas and ash, releasing radiation into the air (Brown 2019, 125). Typical ambient radiation levels in a home or office setting, in comparison, hover around 0.1 µSv/hr, averaging 20 mSv/hr *per annum*. As a result of exposure to this massive amount of radiation, pine trees died and took on the reddish color they still hold today. Dead, though preserved, they appear locked in time at the moment(s) when they absorbed fallout from the reactor. Since this vegetation no longer decays naturally, the "timescale of finite life has been disrupted and the same fate has befallen death as well, which is to say, the material afterlife of rotting and decay" (Marder and Tondeur 2016, 28). In light of the poetics of miasma discussed earlier, we might argue that such a space serves as the living reminder of nuclear contagion, where the docile image of natural landscape—turned to an almost otherworldly hue, drawing our attention even further inside—is much more deadly than the post-apocalyptic scenes found on the abandoned Pripyat streets. This miasma is contained within each tree, ready to be released if disturbed from its slumber.

The Red Forest also behaves like a herbarium for the Zone at large, a monument to radioactive decay, where the very act of decomposition is halted in a geological fashion for the study of future generations. If it is the case that the plants grown in radioactive soil reveal the "shards of our own exploded consciousness," and can be reassembled to discern "fragments of ourselves, of our bodies and thoughts," then the Red Forest performs this feat at a massive scale, absorbing radiation which may only be released at great peril (Marder and Tondeur 2016. 28). Yet in the plant photogram, and the preserved radioactive fossils of the Red Forest,

there still remains a sense of ruin, of civilization's collapse, of an inescap-able nostalgia and loss for a world which could never be fully reclaimed or mended. The world of the Red Forest, to an observer at a distance — and especially an inhabitant of the Zone — is no longer local or tangible, but as a ruin utterly lost to time.

Inhabited place is local, frequented and maintained by daily human presence, whereas ruinous space has been stripped of this presence. The ruin is marked by a displacement; spatial and temporal disorientation which inspires feelings of melancholy, serving as a reminder of a world that no longer 'exists' for the people who once inhabited it (Trigg 2006, 121–123). The ruins — especially the ruined post-industrial spaces of capi-talism — are marked by ambiguity and indeterminacy, where once-inhab-ited space now appears pre-spatial, quasi-primordial, and malleable to both time and our position to and within it (Trigg 2006, 130–131). These ruins are 'haunted' spaces which intrude "upon the seamless present, dis-ordering the unmarked line of time by invoking a spectral plan of uncan-niness" (Trigg 2006, 131). The ruin at times appears unfinished, the death of a future which could not come to pass; the decaying Socialist utopia of Pripyat stands as a striking example of this phenomenon. Perhaps it is even the case that the spectators of history wait for the future time in which the ruin will become "enjungled," to borrow a phrase from Rose Macaulay's analysis of classical ruins (quoted in Trigg 2006, 137). There is, after all, a unique, melancholic pleasure which can arise in the discovery of these long-lost lands, where one loses oneself in speculation of their ways of life, and the causes for their sudden or gradual decline.

In the case of the Red Forest, its ruinous state is not a product of the unstoppable passing of the ages, in which the natural world has sought to reclaim this space, and where brief glimpses of the past make their appearance among the trees. If one wishes to find this kind of ruin, to seek out a contemporary vision of a "world without us," one looks to images (though not the lived reality) of Pripyat's "abandoned" streets. What one finds at the threshold of the deadly and virtually impassable Red Forest is the experience of an utterly different kind of ruin, that of the ecological landscape, trapped in time. It is, in short, the sublime miasma, preserved in stasis as a wide-scale exhibit for what might happen at the so-called 'end' of the world.

Reading the growth of trees, both living and (especially) dead can reveal the long intimacies of human and non-human interaction over the past centuries and millennia. Anthropologist Andrew S. Matthews refers to this practice as "reading ghost forests," of which he has offered the pine and chestnut forests of Mount Pisani in central Italy as an example.

Italy's Mount Pisani, nearby Lucca—a longtime ancient, medieval, and modern city—is a place where "people, trees, and other nonhumans have been entangled for a very long time" (Matthews 2017, G145). By Matthews's account, this period spans roughly fifteen hundred years, though the tree fragments and ancient stumps of today speak to a period of neglect, and a temporal foreground of a much longer period of human engagement with the wood through careful sculpting, pasturing, and fertilization (Matthews 2017, G146). What remains there now is a "complex Anthropocene landscape," an example of the many "ruins of past landscapes of cultivation" where "ghostly presences" persist (Matthews 2017, G146). Careful ecological fieldwork can reveal traces of this past, though it is far from the only tool an anthropologist can employ to understand the history of engagement between humans and the forest. "Words," Matthews writes, "are an index of the degree to which people and plants are entangled" (Matthews 2017, G152). The language about the cultivation and maintenance of plants is the historical reminder of ecological engagement, evidence of the intensely fostered relationships between people and place. This practice of 'reading landscapes' doesn't simply reveal how people of the past described their world, but can also reveal patterns which apply to our current historical situation, namely the ever-changing conditions of the Anthropocene. One possible way of attending to this practice is to "pay attention to the co-emergence of material forms and linguistic terms, of causal accounts, and of histories that can multiply our ways of thinking and acting in the face of overwhelming environmental change" (Matthews 2017, G154). What results is not a singular 'Anthropocene' but a plurality of 'Anthropocenes,' irreducible to a single cause or history, yet nevertheless connected through the enmeshment of ecological and natural history, and irreversibly tied to the language (and by extension, the 'art') which people have used as a form of engagement with the land.

Matthews's methods pose a bevy of questions in relation to the 'dead' forest of Chernobyl, though the most important for this study remains: what is the story of engagement over time which the Red Forest reveals, or perhaps more poignantly, *will* reveal in future days? The stories which will continue to unfold in the centuries to come, where radioactivity will continue its slow release from the trees into the surrounding atmosphere, will stand as a place to be protected, though not in the sense that large tracts of national forest are zoned in the preservation of outside, human forces. Instead, the Red Forest will be maintained to keep its dangerous potential within, in hopes of a future where humans can pass harmlessly through its wooded arches, preserved against the forces of both nature and humanity. It is, in a sense, a time capsule of the nuclear event, for the

residents of the future—if people indeed remain scions of that place—to open when the time is safe.

The "Time Capsule" of the Zone

If the Red Forest is a type of time capsule, so too is the entirety of the Zone. Chernobyl's status as a 'place' is complicated further by its current historical and spatial reality, halted in a state of preservation and decay. Though people and objects continually move through the Zone, it nevertheless appears to have taken on the character of what Marder refers to as a "time capsule," where the memory of disaster lingers with the "silent scream" of clothes left to dry, books scattered in rooms, and vegetation which now consumes entire streets (Marder and Tondeur 2016, 58). This is both true and not: scientists, laborers, and shopkeepers still maintain a faint presence in the Zone, which is enough to keep the New Safe Confinement, the structure whose 2019 completion replaced the old 'sarcophagus,' operational.[2] Tourists, both official and not, further contribute to traffic through the Zone, manipulating it in subtle and minute ways. A true "time capsule" would entail the untouched preservation of an archive, or the maintenance of a place against human manipulation, but in reality, the so-called "ghost city" of Pripyat changes in a fashion more akin to a preserved landscape, than to a forgotten time capsule. Perhaps it is the case that Marder misappropriates, or deliberately rewrites, the intentionality of the time capsule as a conscious attempt to send messages into the future or as a preservation of the way of life at a certain place and time. If Chernobyl is a "time capsule," it is only unintentionally so—regardless of its semi-performative status in cultural imagination—with its archive instigated by the disaster and the events which followed. However, this observation is not entirely without merit: Marder's application of the phrase has the potential to reveal the profound distance between aesthetic and historical lenses of worlds which appear close yet far from contemporary perspective.

Time capsules are a manifestation of the cultural impulse to communicate across generations, to send objects into the future in the hope of conveying a sense of the state of things at a particular historical moment, and what things mattered to those who contributed to the archive. One of the major complications of the time capsule is translation: there is no guarantee that those who uncover the capsule will possess the skills necessary to appreciate, or much less even 'understand' its contents. The Voyager spacecrafts, launched in 1977, are perhaps the most significant

2 Recent military conflict, in the form of Russia's 2022–23 occupation of the country, has also served to prematurely 're-open' this capsule, and place its future in limbo.

instance of humanity's transmission of such capsule-like messages in space and time. The phonographs contained on the spacecraft attempt to "communicate a story of *our* world to extraterrestrials," a slice of significant human achievements as a sample to would-be galactic interlocutors (Van Wyck 2004, 34). It is also a message to and from humanity from a time of extreme scientific and cultural optimism, a kind of summing-up of progress toward the end of the twentieth century. While there is some certainty that humans will be able to appreciate its contents for generations to come, there is no guarantee that any life which intercepts it in the vastness of space—or whether it would reach any life-form at all—would possess the skill or interest to play it.

The notion of the time capsule relies upon its comprehensibility to a future audience. Much like the Rosetta Stone, another capsule or capsule-like artifact from the past, the Zone's future 'usefulness' hinges upon the lessons it may teach the audience that uncovers or deciphers it. Nuclear objects complicate the notion of a time capsule, or a stable record of the past, precisely because of their radical distribution through space and time. Nuclear materials "end the idea that there is a definite 'over yonder' and a 'hither' that remain constantly present so that we can point to them," an idea reliant upon the human vantage point (Morton 2016, 171). Though the physical point of Chernobyl is the place, it is also the 'event,' a record of trauma distributed through the senses and memories of everyone it affected. For Morton, "[n]uclear radiation is an augury, a writing in the flesh or in the sky, but an augury that lacks a stable or consistent system of meaning to underwrite it. We have no idea what it will all mean—yet" (Morton 2016, 172). Carl Sagan, when curating the materials which constitute the Voyager phonograph, intimately understood their significance as cultural artifacts. No doubt King Ptolemy V, who decreed the construction of the Rosetta Stone in 196 B.C.E., also saw the cultural significance of his act. In the case of these objects, there is always the potential that their benefactors envisioned a time when their meanings would radically expand beyond the contexts in which they were created—this is the potential of all objects and events at any given historical moment—though these objects, at least in their physical nature, lack the hyper-objective quality of radiation. Events like Chernobyl, or the disasters at Hiroshima and Nagasaki which preceded it, continue to play out in the presence of their mark upon the Earth-text of geo-trauma.

Progress After an End of the World

Marder, like Morton, believes that the world has arrived at some sort of ending, an ending which has been in process for a long time. Morton identifies this ending somewhere around the time of the invention of the steam engine and the genesis of the Industrial Revolution, where capitalism and industry merged into an inseparable whole, and whose fusion signaled the dominance of techno-scientific culture and the death of ecological holism. Gone are the old, mythical-pastoral ways of conceiving space and time in relation to progress: the real world is no longer spatial or temporal—as progress extends infinitely in the direction of the future—but rather ceaselessly 'material,' judged in the fashion of those ever-looming hyperobjects created by humans, designed to radically outlive their lifespan. Marder's ending is, perhaps, more recent, though no less drastic in its erosion of spatio-temporality:

> The world has ended, is ending in innumerable ways, and will keep ending for some time to come. So much so that it is defined by its relation to the end. Thoroughly finite, if not the very figure of finitude, the world *is* its ends […] Endlessly worried about the finitude of finitude, twentieth century philosophy flirted with the possibility of banalizing the expression and, thereby, inoculating us against its disturbing force. Although something or someone did not survive one of the world's ends, survival was unflinchingly affirmed, often in the guise of mourning (Marder and Tondeur 2016, 64).

The Chernobyl disaster of 1986 is not even the most recent instance of this mourning—the events of Fukushima, and the ongoing military conflict near the Zaporizhzhia N.P.P. in Ukraine, rest more closely in contemporary consciousness—though it nevertheless destroyed the "horizon of existence against which the world could still appear meaningful," rupturing consciousness seemingly beyond all mending. A reconstruction of a "scale and order of time tailored to human measure" would, it appears, need to do away with the things that made such tailoring possible in the past (Marder and Tondeur 2016, 64).

In order to follow Marder and Morton and their end-of-world thinking, and to begin the long process of building a new world, much would need to be replaced in the old ways of philosophizing and making art about nature. The aesthetic doctrine of the sublime, as outlined here, is severely in need of revision. This article has offered an assessment of *TCH*'s critique of the sublime by outlining the ways that radiation and nuclear culture radically

alter the ideas of what it means to compare the scale of nature to human imagination and will. One cannot, it is clear, surmount radiation's largely invisible presence in the same fashion that one can climb a mountain, or purport to master its iconography through painting or photography. It is true that the sublime is rooted in the mimetic desire to represent the world through the lens of human genius, to render landscape as a great foil to ultimately be 'conquered' through human ingenuity. Such a view is necessarily flawed, in that it sets up the natural world once again as fuel for human activity, though it has allowed us to view Chernobyl as a kind of sublime 'artwork' through four case studies: the herbarium as genre; the nuclear miasma; the Red Forest of the Zone; and the so-called "time capsule" of Chernobyl and Pripyat. Each view has taken us on a path to aestheticizing place and event as a way of understating how disaster disrupts the sublime's potential to domineer the forces of nature. Yet at this juncture, we still face the question of the end of the world, and how, by diffusing the aesthetic principles born from and continually reinforcing the exhaustion of nature, how we might escape this cycle.

One possible option, following the philosopher Vladimir Marchenkov's assessment of the Hegelian "end of art" thesis, is to conceive of our contemporary situation not as the *end* of history, but the end of the period known as *modern history*.[3] Such an ending offers its participants the opportunity to begin a truly genuine history in which the notion of "the infinite progress of immanent humanity, i.e., humanity construed as devoid of a transcendent dimension" no longer dominates the logic of history (Marchenkov 2014, 236). Nature will no longer be conceived as providing an "inexhaustible reservoir of resources" but as a constant companion and, crucially, a necessary and inseparable aspect of the human subject (Marchenkov 2014, 236). Modern art was born from the very same principles of industrial technology, namely the impulse of art's autonomy and apparent isolation from any dimension exceeding its own production. "This mythology," Marchenkov writes, "must be surmounted and must yield its place to a more rational relation between nature and art where the aporias of the abstract intellect can be resolved without doing violence to nature and without reducing art to something existentially irrelevant" (Marchenkov 2014, 236). Marder and Tondeur, in their project to enliven the cultural impression of the Zone through philosophy, memoir, and photogrammetry certainly appear to grant the creative process an existential weight, otherwise it might have been the case that Marder would have resorted to purely philosophical means in order to critique the aesthetic of the sublime. But in its critical-creative approach, *TCH* seeks to position itself in a world where the power of art has significant

[3] Marchenkov's work, rooted in the intersections of art and mythology, is a thorough indictment of modern teleology, and serves as a useful interlocuter in a discussion of the impact of the nuclear sublime.

purchase over the relationship between the human person and the natural world, and between philosophical concepts and radioactive realities. If it is the case that the 'end of the world' has already happened, or is in the process of continually happening with each passing moment, then this herbarium looks forward to a day when we might have considered that reconstruction to have begun when artists and philosophers took the question of nature's exhaustibility to be at the very center of their practice.

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Towards a Contemporary Poetics of Nonfiction about Disasters

Abstract: In order to assess which role catastrophe plays in contemporary literary nonfiction, in this essay I examine four narrative texts dealing with different disasters: *And the Band Played On* (1987) by Randy Shilts, *Chernobyl Prayer* (1997) by Svetlana Alexievich, *Underground* (1997) by Haruki Murakami and *News on the Disaster* (2001) by Roberto Alajmo. By adopting a narratological and comparative approach and identifying constants and commonalities underlying these texts, I make the case for a potential poetics of nonfiction about disasters. While I discuss characteristic plot features and alternative interpretations of catastrophe within the corpus, two main elements stand out in the analysis: first, the extreme events narrated make the authors compelled to declare their own ethical commitment and the methods and means of their enterprise, usually relying on paratextual and metatextual inserts, which signal not only the sensitiveness of the topic and its resistance to verbalization, but also how this kind of life writing does not occupy a stable and acknowledged place in the literary panorama. Secondarily, although authors have tried to find their own original way to account for catastrophe through their works, they seem to inevitably choose the choral form as the best narrative structure to represent disasters: no point of view is privileged, there is no single hero and the communal dimension is respected.

Keywords: nonfiction, contemporary literature, disaster, narrative

Art, literature, and media have constantly shown interest in catastrophe: if floods and fires have been a widespread subject in painting, the press has started very early to regularly cover earthquakes and other disasters, while catastrophic movies became extremely popular in the late

twentieth century. As far as the literary field is concerned, it appears that disasters are especially considered as a recurrent plot component of particular genres such as science fiction or post-apocalyptic novels, where, usually, alternative realities and projections of the end of the world or humanity provide fascinating, disturbing, and often engaging narratives.

Without depending on imaginative effort and dealing, instead, with actual dangers, mass deaths, and calamities, nonfiction about disasters constitute another communicative and artistic approach to catastrophe. Despite the specific nature of the extreme events narrated, these works, which combine literary and journalistic writing, present significant similarities, both in content and form, and are usually based on the testimonies of people who have experienced disasters. I suggest comparing four texts from the twentieth and twenty-first century which share a factual stance on describing or recalling a disaster, from epidemics to terrorist attacks. I argue that works such as *And the Band Played On* (1987) by Randy Shilts, *Chernobyl Prayer* (1997) by Svetlana Alexievich, *Underground* (1997) by Haruki Murakami and *News on the Disaster* (2001) by Roberto Alajmo[1] can be considered as part of a contemporary subgenre of life writing in which disaster plays a constitutive role. By adopting a narratological and comparative approach and identifying constants and commonalities underlying these texts, I will make the case for a potential poetics of nonfiction about disasters. Furthermore, the analysis will show that subjective and ordinary responses to catastrophe are especially addressed in these works, which often stand out as complementary perspectives or even counter narratives if compared to the official discourse provided by media, politics, and science about the same circumstances. Firstly, I will shed light on the plurality of points of view on disaster as the backbone of the narrative structure marking the texts, which, therefore, are openly choral and not focused on the story of a single victim or survivor. Subsequently, I will discuss the author's voice and the ethos it conveys in relation to the disaster that is recounted through the testimonies collected. Attention will be paid, in particular, to the ways in which this voice fully expresses its standpoint in the paratextual sections that introduce the work. Then, turning to the narrated events, I will highlight how the delineation of a chronology of the catastrophe is rather difficult, resulting, in terms of plot, in beginnings and epilogues that are hard to imagine and in an insistent recourse to repetition. Finally, some reflections will be devoted to the implications, especially the ethical ones, of the comparisons between catastrophes, since such analogies are widely present within disaster narratives.

As a preliminary step, it must be stressed that the selected corpus has been identified as an example of nonfiction about disasters, even if this

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[1] All the titles and quotes of these works refer to their existing English editions, with the exception of Alajmo's text, which is only available in Italian. Therefore, in this case the translations provided are mine, starting with the title, which is originally *Notizia del disastro*.

'label' is not consistently used by scholars. However, if I have decided to rely on this formulation, it is because none of the options currently offered by life writing studies prove to be sufficiently relevant.[2] In fact, these texts cannot be mistaken for memoirs or autobiographies, because the authors, by writing the social instead of writing the self, do not place themselves at the center of the narrative and the events they expose, regardless of their involvement in the disaster. Testimony appears less extraneous, although traditionally it is associated with the two world wars and the twentieth century genocides (see Detue and Lacoste 2016, 3; Detue 2012, 85; Rastier 2013, 116), a spectrum which turns out to be rather limiting, since it is evident that acts of witnessing are related to a huge variety of human experiences, as shown in *Chernobyl Prayer* by the words of a father who lost his daughter because of radioactive contamination: "I want to testify: my daughter died from Chernobyl. But they want us to keep quiet" (Alexievich 2016, 55). We could say, then, that works engaging with catastrophe, such as Alexievich's, expand and enrich the testimonial scope, also by means of their distinctive narrative structure, based on the plurality of points of view and the apparent absence of the author. Although their authors differ in nationality,[3] the four selected texts invariably display this feature, which necessarily imposes itself as a starting point for this inquiry, as the following overview of the corpus illustrates. In *Chernobyl Prayer* Svetlana Alexievich recalls the nuclear accident that occurred in 1986 by reporting the testimonies of several survivors she had previously interviewed; each story is autonomous, told in the first person, and presented as a monologue with its own title, while the author's questions are not included. In *Underground* Haruki Murakami collects the interviews he had conducted with a large number of people involved in the Tokyo subway sarin attack in 1994; the author intervenes in the text with his questions and introduces each witness with a short biography; as for Alexievich, the different memories of the disaster can be read independently. In *News on the Disaster* Roberto Alajmo, relying on the testimonies of 21 survivors, reconstructs the last hours of life of the 108 passengers who died in 1978 when their plane crashed in the sea near Palermo; although each personal story constitutes a chapter, it is embedded in an overall narrative of the disaster, signaled by a third-person narrator who recounts the events and sometimes adds details which cannot be found in the sources consulted by the author (for instance thoughts and perceptions of the deceased). Finally, *And the Band Played On,* by Randy Shilts, is the powerful and voluminous chronicle of the early years of AIDS in the USA (1980–1985), which features doctors, politicians, activists and patients as characters of a progressively developed storyline aimed at reproducing the alarming evolution of the

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[2] See the several types of autobiographical writings listed by Sidonie Smith and Julia Watson in the "Appendix" to *Reading Autobiography* (2001).
[3] Alexievich is Belarusian, Murakami is Japanese, Alajmo is Italian, and Shilts is American.

epidemic; by adopting an omniscient third-person narrator, Shilts makes extensive use of narrative techniques typical of the novel.

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This initial comparison underlines some convergences between the four texts, primarily represented by the plurality of voices and perspectives through which the disaster is recounted. In fact, in these works no hero is recognizable, that is to say a figure who stands out as the protagonist of the story: first of all, because, with the exception of Shilts, there is no overarching narrative clearly developed in a sufficiently linear manner, from the beginning to the end of the book, whereas we are in the presence of many stories, however relating to the same events. In the introduction of the second edition (2022) of *News on the Disaster* Alajmo clarifies this narrative structure by referring to *Rashomon* (1950), the film by Akira Kurosawa in which one fact is told from several points of view, even in contradictory ways. Alexievich and Murakami create such a mosaic by giving voice to dozens of narrators of the disaster, while Alajmo lists one by one the names of victims and survivors in the opening of the text, as does Shilts with the protagonists of his chronicle in the section "Dramatis personae".

In all the cases the authors choose to 'disappear' from the scene, limiting themselves to introducing texts, asking questions or hiding behind the third-person narrator. If this choice seems obvious for those who are mere outside observers of what happened, such as Alajmo, it is not so for Murakami and Alexievich, who allude to a personal involvement.[4] In particular, Alexievich claims that since she comes from one of the contaminated areas, she struggled to find a form of distancing in her writing: "If, earlier, when I wrote my books, I would pore over the suffering of others, now my life and I have become part of the event. Fused together, leaving me unable to get any distance" (Alexievich 2016, 25). Faced with such an issue, Shilts opted for a drastic solution: if in *And the Band Played On* there is no trace of his health condition in the midst of the epidemic, the author exposed himself only in 1993, when he announced to the press that he was HIV-positive (one year before his death), explaining that he had kept it private since 1985 so as not to divert attention from his journalistic enterprise. Yet, although the authors choose not to appear among the witnesses and characters of the stories told, their gaze remains participatory and compassionate. In any case, these texts are very different from what Emmanuel Carrère does in *Other Lives but Mine* (2009), in which, as a witness to the tsunami of 2004, the French writer takes the disaster as an opportunity to reflect on his own existence, his personal relationships and his art, approaching the composition of a memoir.

4 This information is ambiguous in relation to Murakami, as in the Italian edition the author states in the introduction that he was also driven to write *Underground* by serious personal reasons, which he does not explain. However, the English and French editions completely omit this passage. The monograph that Jay Rubin, Murakami's American translator, dedicates to the author, does not shed light on the issue, simply suggesting that *Underground* was motivated by the writer's desire to reconnect with his own country after years of living abroad (see Rubin 2002, 237, 242).

In nonfiction about disasters, the authors' standpoints regarding the narrated events are related to the expectations associated with the literary genre of reference, which proves to be, as I have suggested, closer to testimony and reportage than to autobiography or memoir. Therefore, what emerges is a specific authorial ethos characterized by self-denial, participation, support for the victims, reliability, truthfulness, and commitment in placing one's literary art at the service of a social cause. These traits, which in *Ethos and Narrative Interpretation* (2014) Liesbeth Korthals Altes has investigated as part of engagé writing, are conveyed by the author's public image, reading strategies and textual clues, which constitute the element that is privileged in my analysis (see Korthals Altes 2014, 175–190).

The relevance of the choral structure is pivotal in determining how the selected works fit into the contemporary literary landscape dealing with catastrophe, which Amitav Ghosh has considered in his essay *The Great Derangement* (2016). Ghosh remarks the inadequacy of recent realistic novels in the face of climate change, namely their disinterest in the non-human and their predilection for individual experience. Furthermore, he argues that fiction started neglecting the collective realm and its transformations as a result of a social and economic system intended to produce isolation (see Ghosh 2016, 89). Nevertheless, Ghosh does not acknowledge the existence of nonfiction as a mode of narrating disaster, which is quite significant, but if he had taken it into account, he would have certainly noticed that it foregrounds collectivity, without overlooking subjective experience. In fact, what characterizes our corpus is the interest in individual destinies, which are, however, always placed in relation to events shared with many others. The choral dimension, therefore, lends itself to overcome both the representation of an isolated individual and the dehumanizing representation of shapeless and anonymous masses. Hence, our four authors are not that far from Rebecca Solnit's take on disasters, which she has elaborated in her essay *A Paradise Built in Hell* (2009). Reflecting on the San Francisco earthquake of 1906, Solnit observes that:

> What happened after the quake has been told over and over as a story about geology, about firefighting, about politics, and about people in power. It has never really been told as a story of ordinary citizens' responses, except as the long series of first-person accounts that the San Francisco-based weekly *Argonaut* ran during the disaster's twentieth anniversary. In those accounts and the letters and essays of the survivors, a remarkable picture emerges of improvisation, heroism, and solidarity, similar to what can be seen in most disasters but is seldom recorded (Solnit 2010, 23).

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Solnit does not overtly mention literature as an alternative to other kinds of discourse, however some authors have written about catastrophes emulating "first-person accounts, letters and essays of the survivors", such as Ibuse Masuji, who relied on multiperspectivity to compose *Black Rain* (1965), his historical novel about the atomic bombing of Hiroshima. Similarly, in our nonfictional texts the plurality of points of view allows Murakami, Alexievich, and Alajmo to foreground the often unexpected "ordinary citizens' responses" instead of the power dynamics and the technical and scientific explanations related to the events. *And the Band Played On: Politics, People, and the AIDS Epidemic* constitutes a partial exception, as the presence of 'politics' in the subheading suggests. Nevertheless, Shilts' work constantly shows and highlights how major changes in the epidemic management and in medical research occurred thanks to the brave actions of private citizens and were interwoven, influenced, and even hindered by personal motives, such as ambition, shame, and selfishness.

This approach in the telling of catastrophe is usually disclosed in paratextual introductory sections, in which the authors outline in the first person the premises and methodology (largely based on interviews) underlying their work, and state their interpretation of the disaster. Employed in this way, the paratext is an almost constitutive element of this type of nonfiction. For example, Alajmo's reconstruction of the plane crash, which is precise and devoid of pathos, is only preceded by very few words that announce the list of names of the people on board the flight: "This is the story of how one hundred and twenty-nine people died and lived. Their names were: […]" (Alajmo 2001, 9). The choice of verbs ("die/live") is crucial, since it not only indicates that both victims and survivors are remembered, but also that the whole life of those who perished, and not merely their final moments, is recounted, thus not reducing their identity to that of victim. Instead, in his preface to *Underground* Murakami extensively explains how he intended to present and investigate the stories of the people involved in the disaster, both survivors and followers of the Aum cult that was responsible for the attack. Resonating with Solnit's view, Murakami's approach complies with a collective vision, but on a small, human, personal scale:

> What I did not want was a collection of disembodied voices. Perhaps it's an occupational hazard of the novelist's profession, but I am less interested in the 'big picture,' as it were, than in the concrete, irreducible humanity of each individual. […]

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> The Japanese media had bombarded us with so many in-depth profiles of the Aum cult perpetrators—the 'attackers'—forming such a slick, seductive narrative that the average citizen—the 'victim'—was almost an afterthought. [...]
> Our media probably wanted to create a collective image of the 'innocent Japanese sufferer,' which is much easier to do when you don't have to deal with real faces. Besides, the classic dichotomy of 'ugly (visible) villains' versus the 'healthy (faceless) populace' makes for a better story. [...] Furthermore, I had a hunch that we needed to see a true picture of all the survivors, whether they were severely traumatized or not, in order to better grasp the whole incident (Murakami 2000, 6–8).

Murakami emphasizes the specific contribution of literature, since he identifies himself as a writer, a qualification he uses repeatedly in *Underground* to justify his responsibility, his impressions and his limitations with respect to the stories he is exposing. In contrast to the simplified narrative of the media, literature privileges details and nuances, without settling for sharp contrasts and superficial interpretations, and becoming a real cognitive tool.

With her work, Alexievich also aspires to offer a complementary view of the disaster, in particular by telling a hitherto untold story, namely the emotional, subjective perspective on the catastrophe, as she claims in the section programmatically entitled "The author interviews herself about the untold story and why Chernobyl challenges our worldview":

> This is not a book about Chernobyl, but about the world of Chernobyl. [...] What interests me is what I would call the 'missing history', the invisible imprint of our permanence on earth and in time. I paint and collect mundane feelings, thoughts and words. I try to capture the life of the soul. A day in the life of ordinary people. [...] Unable to find words for these new feelings and emotions, unable to find emotions for these new words, we no longer knew how to express ourselves [...]. The truth is that facts alone were not enough; we felt the need to look behind the facts, to dig into the meaning of what was happening (Alexievich 2016, 21).

Such statements express the author's desire to understand the disaster and let the readers know about the human experiences arose from catastrophe, hidden from view, and forgotten by collective memory. As Korthals Altes points out: "This role brings the writer close to the journalist, but also the social analyst, and suggests his work's affinity with genres

such as reportage and documentary. [...] Thus, beyond thorough information and analytic expertise, the writer- reporter's role is enriched with the task of discerning and interpreting the signs that lead to a deeper grasp of reality" (Korthals Altes 2014, 180). If for Murakami *Underground* is an attempt to "grasp the whole incident," while Alexievich "felt the urgency to look behind the facts," for Alajmo *News on the Disaster* is a blatant representation of unfortunate and inexplicable coincidences, as he stated in the introduction to the new edition of the work (2022), reacting to readers who had misinterpreted the text as a source for conspiracy theories behind the accident (which were applied to other plane crashes in Italy). On the contrary, Shilts approaches AIDS as a catastrophe caused by human behaviors, but, like the other authors, he is willing to reconstruct what happened by emphasizing the moral strength or weakness, the blameworthy or praiseworthy emotions of the protagonists, that is, politicians, scientists, doctors, activists and victims, as he announces in the prologue:

> The story of these first five years of AIDS in America is a drama of national failure, unfolding against a backdrop of needless death. [...] Fighting against this institutional indifference was a handful of heroes from disparate callings. [...] Because of their efforts, the story of politics, people, and the AIDS epidemic is, ultimately, a tale of courage as well as cowardice, compassion as well as bigotry, inspiration as well as venality, and redemption as well as despair (Shilts 2021, xxii–xxiii).

The principles of disaster storytelling discussed so far lead us to wonder when and how catastrophe begins. In fact, the temporal dimension of such an event is not of secondary importance: in the first place, it allows us to distinguish sudden and instantaneous disasters, i.e. those that can be located in the here and now (earthquakes, explosions), from those that instead have a slow gestation and evade perception, exemplified by environmental contamination (see Ligi 2009, 34–35). However, it is not always easy to pinpoint the beginning of a disaster and even less its end, especially when taking into account its prolonged effects. On the one hand, unlike earthquakes or fires, AIDS and radiation do not kill immediately, since they invisibly act over time; on the other hand, any type of disaster can cause psychological distress which deeply affects survivors' lives. Similar circumstances coincide especially with situations of post-traumatic stress disorders, prolonged medical issues and social marginalization, which Murakami addresses in *Underground* and are hardly identified when belonging to the aftermath of those disasters everyone considers

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as over, except the survivors. In his work Alajmo includes this aspect only in passing, both suggesting its hard identification and the witnesses' will to forget the accident. For example, the pages dedicated to Fortunata Parlavecchio, who was rescued with her daughter, end with an uncertain epilogue: the woman, who was the most loquacious with journalists from her hospital bed just after the accident, committed suicide three years later, but none can tell for sure if it was because of her husband's financial issues or her continuous recalling of that night in 1978 (see Alajmo 2001, 43). Another survivor, Bepi Nicolazzi, was convinced that his permanent health problems were a sufficient reminder of the event and, after writing a recriminatory letter, stopped talking about the crash with anybody (see Alajmo 2001, 145).

As far as the beginning is concerned, from a narratological point of view, the traditional incipit of a disaster story is one that immediately emphasizes the unpredictability and abruptness of catastrophe. Thus, Murakami concludes his introduction by anticipating the sequence of events his witnesses are going to recount:

> The date is Monday March 20, 1995. It is a beautiful clear spring morning. [...] You get up at the normal time, wash, dress, breakfast, and head for the subway station. You board the train, crowded as usual. Nothing out of the ordinary. It promises to be a perfectly run-of-the-mill day. Until a man in disguise pokes at the floor of the car with the sharpened tip of his umbrella, puncturing some plastic bags filled with a strange liquid (Murakami 2000, 15).

The contrast between the clear sky and the ordinariness of the daily routine, followed by the absurdity of catastrophe, is a topos of disaster narratives, to the point of uniting the personal misfortune, such as the death of a loved one due to natural causes, and the collective, even though, in the individual experience of loss, the differences are ultimately irrelevant. This is effectively illustrated by Joan Didion in her memoir *The Year of Magical Thinking* (2005), which focuses on the mourning for the sudden death of the author's husband due to a heart attack, and therefore does not belong to our corpus. However, some of Didion's remarks are extremely useful to our purpose, since the author stresses precisely the common ground which characterizes narratives of equally traumatic and unaccountable events. First, she underlines the background, the habitual setting of everyday routine, whose striking opacity prevents one from seeing beyond its triviality any warning signs or anomalies: "I recognize now that there was nothing unusual in this: confronted with sudden disaster

we all focus on how unremarkable the circumstances were in which the unthinkable occurred, the clear blue sky from which the plane fell, the routine errand that ended on the shoulder with the car in flames, the swings where the children were playing as usual when the rattlesnake struck from the ivy" (Didion 2005, 3). Then, Didion proceeds to give some examples of similar narratives, showing their pervasiveness; sometimes, their elliptical and concise form emphasizes the unintelligibility of events: "'He was on his way home from work—happy, successful, healthy—and then, gone,' I read in the account of a psychiatric nurse whose husband was killed in a highway accident" (3); other times, the reference to the invariable beautiful day confirms the traditional beginning of disaster stories, which Didion observed not only as a reader, but also by collecting the testimonies of survivors, just like the authors of our corpus did. Even considering the shift from personal tragedy to catastrophes such as Pearl Harbor and September 11, the constants remain remarkable, whether they appear in testimonies or in official reports:

> In 1966 I happened to interview many people who had been living in Honolulu on the morning of December 7, 1941; without exception, these people began their accounts of Pearl Harbor by telling me what an 'ordinary Sunday morning' it had been. 'It was just an ordinary beautiful September day,' people still say when asked to describe the morning in New York when American Airlines 11 and United Airlines 175 got flown into the World Trade towers. Even the report of the 9/11 Commission opened on this insistently premonitory and yet still dumbstruck narrative note: 'Tuesday, September 11, 2001, dawned temperate and nearly cloudless in the eastern United States' (Didion 2005, 3–4).

Catastrophe divides survivors' lives into 'before' and 'after,' often constituting a wound that will never be healed. It may also provide the people involved with a new identity that irretrievably and painfully separates them from who they had been until then, from the ordinariness of their existence:

> You're living your life. An ordinary fellow. A little man. Just like everyone else around you—going to work, coming home from work. […] And then, just like that, you've turned into a Chernobyl person. A curiosity! Some person that everyone shows interest in, but nobody knows much about. You want to be the same as anyone else, but it's no longer possible. […] In the beginning, we all turned into some kind of rare exhibits.

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> Just the word 'Chernobyl' still acts like an alarm. They all turn their heads to look at you. 'Oh, from that place!' (Alexievich 2016, 43)

Through narrative, which is inherently posterior to any experience, we try to make sense of events, particularly when they occurred in a brutally sudden manner. *Underground,* then, is Murakami's search for meaning, that is, it is his attempt to shed light on the origins of the sarin attack, which he relates to a deep malaise affecting Japanese society. Takashi Hidetoshi's testimony, as a former proselyte of the Aum cult, elaborates on the reasons behind people's choice to join the leader Shoko Asahara. According to Hidetoshi, it was the apocalyptic anxiety that led towards Aum, a fear for the future which increased as society was approaching its end by reaching its highest point of prosperity:

> After an apocalyptic vision there's always a purging or purifying process that takes place. In this sense I think the gas attack was a kind of catharsis, a psychological release of everything that had built up in Japan—the malice, the distorted consciousness we have. Not that the Aum incident got rid of everything. There's still this suppressed, virus-like apocalyptic vision that's invading society and hasn't been erased or digested. Even if you could get rid of it at an individual level, the virus would remain on a social level (Murakami, 2010, 356–357).

The virus metaphor refers to something insidious and pervasive, silently spreading through space and time, and making difficult to determine when the phenomena it produced began. Therefore, it is not surprising that, focusing on the consequences of a real virus, Shilts necessarily had to deal with the problem of ascertaining when it appeared in the first place, hence establishing a starting point for his chronicle. Such a prelude is represented, in *And the Band Played On,* by the parties which took place during the 200th anniversary celebration of the United States, held in New York on 4 July 1976:

> Ships from fifty-five nations had poured sailors into Manhattan to join the throngs, counted in the millions, who watched the greatest pyrotechnic extravaganza ever mounted, all for America's 200th birthday party. Deep into the morning, bars all over the city were crammed with sailors. New York City had hosted the greatest party ever known, everybody agreed later. The guests had come from all over the world.
> This was the part the epidemiologists would later note, when they stayed up late at night and the conversation drifted toward where it

had started and when. They would remember that glorious night in New York Harbor, all those sailors, and recall: From all over the world they came to New York (Shilts 2021, 3).

From the very beginning of his reconstruction, Shilts relies on the anticipation of what later came. In this passage, it is the moment when epidemiologists attempt to pinpoint the origins of the epidemic in the United States. Elsewhere, however, gloomy predictions and allusions are systematically employed to evoke the AIDS catastrophe, which is at that time already underway, even if people are not aware of it, unlike the narrator: placing himself in a time after the events have unfolded, he clearly uses his knowledge to generate this nervous anticipation of an unstoppable downfall. Readers of *And the Band Played On*, in fact, feel frustrated in witnessing the progression of the disaster and all the acts failed to contain it, while they are constantly reminded that things are getting worse: "This was a scenario for catastrophe, Dritz thought, and the commercialization of promiscuity in bathhouses was making it worse. [...] 'Too much is being transmitted,' she said. 'We've got all these diseases going unchecked. There are so many opportunities for transmission that, if something new gets loose here, we're going to have hell to pay'" (Shilts 2021, 40); "[s]lowly and almost imperceptibly, the killer was awakening" (49); "[t]here was a new virus that was killing gay men. Jesus Christ, some of these parties happened two years ago. It could be all over the place by now. God only knew how many people were going to die" (112); "[t]he horror. He couldn't escape the sense of impending doom. [...] He knew a dark secret. Something they didn't know. [...] Bobbi would die and so would thousands more. It had all been one big party and, now, it was about to end" (215).

Throughout *And the Band Played On*, the same dynamic is repeated: warnings that go unheeded, funds that are not allocated, constant delays in research and preventive measures. If this recurrent pattern emphasizes the irresponsible and scaring steps taken towards catastrophe, in disaster narratives reiteration can also be a mode of expression of traumatized memory, as a witness in *Chernobyl Prayer* shows: "It happened ten years ago, and every day it's still happening to me now. Right now. It's always with me" (Alexievich 2016, 43). More generally, repetition is an integral part of the choral structure adopted by Murakami, Alexievich, and Alajmo, since, by focusing on the same event narrated from several perspectives, it is inevitable that each story presents aspects already encountered at an earlier point in the text. Furthermore, in nonfiction detours from the facts are not welcome, hence even their repetitiveness should be respected. In such a context, invention and poetic license are not praised, as confirmed

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by David Harris's disapproval of Shilts' narrative approach, namely his "need to invent scenes, overhear conversations, tap internal monologues, create suspense, devise artful foreshadowing, and evoke menacing atmospheres" (Harris 1997, 233).

Unavoidable repetitions, then, can contribute to the authenticity of a story, just as returning to the same set of experiences to describe extreme events stresses how the exceptionality of catastrophe challenges language as well. This aspect is clearly noticeable in *Chernobyl Prayer*, where Alexievich thematizes the difficulty to find the right words to conceptualize and communicate something that people have experienced for the first time. Thus, as readers, we continuously learn that some citizens are unable to leave the place where they had always lived, because, in their eyes, nature has not changed at all and cannot therefore threaten their existence: since it resists perception, radioactive contamination resists understanding and representation too. Equally widespread, in *Chernobyl Prayer*, is the reference to war, which witnesses constantly mention as their most extreme experience before the nuclear accident, identifying many similarities between the two events: the evacuations, the numerous deaths, the omnipresent soldiers, the oppressive fear. Orienting oneself in a new reality implies, also, evaluating it in relation to other circumstances, which can lead to different forms of adaptation to disasters. *Chernobyl Prayer* contains many examples of such responses, as that of a family who settled in the contaminated area after leaving Tajikistan because of war:

> I don't find it as scary here as it was back there. We're left without a homeland, we don't belong anywhere. [...] [W]e'd all forgotten what normal, peaceful life was like. That you can walk down the streets in the evenings. That you can laugh. [...] But they hadn't seen cream or butter in two years. Over there, you couldn't buy bread. It was war. You can't explain it to someone who doesn't know what war is, only knows it from the movies.
> My soul was dead there. Who would I give birth to, with my soul dead? There aren't many people here. The houses are empty. We live near the forest. I get frightened when there are too many people. Like at the station, in the war (Alexievich 2016, 23).

The inhabitants of a village are proud of having somehow gone back in time and built a sort of self-sufficient commune, where no authority is recognized, and contaminated nature is more hospitable than urban society:

In our village, the people live together. As one community. [...] Nobody can trick us again, we're not budging from this place. We've got no shop, no hospital. There's no light. We sit around paraffin lamps and rushlights. But we're happy! We're home. [...]

So long as there's no war ... I'm terrified of war! [...]

We returned along with our cats. And dogs. We came back together. The soldiers and riot police wouldn't let us in, so we came by night. Took the forest footpaths. The partisan paths.

There's nothing we need from the state. We grow everything ourselves. All we ask is to be left alone! We don't need any shops or buses. We go twenty kilometres on foot for our bread and salt. We can fend for ourselves (Alexievich 2016, 17–18).

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For the family on the run, the most important thing was to save their lives, while for the villagers it was to return home. However, both are haunted by war, which is a present reality for the first and a memory brought back by the management of the disaster for the second. In the end, their decisions are reduced to a choice between the effects of two catastrophes: war and nuclear disaster.

In our corpus, previous disasters may be occasionally mentioned to hint at similar causes and mistakes, like in Alajmo's text, whereby the plane crash that occurred in 1972 is recalled, during the same route another plane would follow a mere six years later. Instead, in *Underground* the disapproving intent is explicit in the words of a doctor: "There is no prompt and efficient system in Japan for dealing with a major catastrophe. There's no clear-cut chain of command. It was exactly the same with the Kobe earthquake. The biggest lesson we learned from the Tokyo gas attack and the Matsumoto incident was that when something major strikes, the local units may be extremely swift to respond, but the overall picture is hopeless" (Murakami 2000, 222).

Authors and victims can borrow images and words related to other tragic events to compensate for the limits of language in front of the shock and obscurity of a new experience, which in *Chernobyl Prayer* is insistently highlighted: "They were comparing it with Hiroshima, but no one believed that. How can you believe anything if it's baffling?" (Alexievich 2016, 39); "I'd read about Hiroshima and Nagasaki, seen the documentary footage. It was horrific, but everything made sense: a nuclear war, a blast radius. I could imagine all that. But what had happened to us ... It was simply beyond me" (46).

Finally, recalling past catastrophes, such as the horror of concentration camps, contributes to motivate standpoints and behaviors in front of

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a danger. As for Chernobyl people, it is a matter of choice between different disasters, which, for the HIV positive people, are represented by the epidemic and the prospect of persecution:

> Paul echoed the fears Curran was hearing so much lately, about how AIDS might be used as a medical pretext to round up homosexuals and put them in concentration camps.
> 'I know I'm not going to get AIDS, and I'll be damned if I'm going to spend the rest of my life in some camp,' said Paul, in his friendly Oregonian way. Curran thought the train of thought was curious. After all, nobody had suggested or even hinted that gays should be in any way quarantined for AIDS. The right-wing loonies who might propose such a 'final solution' were not paying enough attention to the disease to construct this Dachau scenario. Still, it was virtually an article of faith among homosexuals that they would somehow end up in concentration camps (Shilts 2021, 228).

Relating the catastrophe at the heart of the text to earlier atrocities generally implies an equation with those historical facts or the belief that the more recent tragedy stands out for its uniqueness. Even if such assumptions play different roles in the construction of disaster narratives, there is no doubt that they lend themselves to criticism concerning victimhood and historical memory. When the above-mentioned witness admits, in *Chernobyl Prayer*, that he can understand Hiroshima, but remains speechless about the nuclear accident, he is indirectly attesting to the exceptional nature of what he experienced and validating Susan Sontag's argument that "victims are interested in the representation of their own sufferings. But they want the suffering to be seen as unique. [...] To set their sufferings alongside the sufferings of another people was to compare them (which hell was worse?), demoting [...] [their] martyrdom to a mere instance. [...] It is intolerable to have one's own sufferings twinned with anybody else's" (Sontag 2019, 98–99). This reasoning explains why some deem as unethical, for example, the appropriations of Holocaust language and imagery, which entails that the preeminence of the extermination makes any other catastrophe comprehensible and representable in its presence. Simultaneously, the pervasiveness of the Holocaust in the mass culture of the United States, where there is an alarming lack of factual knowledge of the genocide perpetrated by the Nazis, has made it more akin to an ahistorical myth than an event that actually happened (see Rothe 2011, 11, 16–17). More broadly, becoming the symbol of absolute evil, "an archetype for emplot-

ting diverse experiences of victimization" (Rothe 2011, 8), and "the benchmark against which all other events would be assessed" (13), the Holocaust was "unethically appropriated as an exculpatory screen memory to evade responsibility for the crimes perpetrated throughout American history" (12). Curiously being both unthinkable, overwhelming, and reduced to a universal and simplistic moral lesson to be applied to almost any issue, the Holocaust paradigm can still operate as a powerful reminder to act in the face of a new catastrophe that must be stopped. If in *And the Band Played On* the "Dachau scenario" (Shilts 2021, 228) awaiting people with HIV is evoked as a nightmare, a dreadful future projection, however improbable, another passage of the text provides a different perspective. Larry Kramer, activist, writer, and one of the main characters of Shilts' chronicle, spends a month in Europe in 1983; three years before, the disease which was spreading around him did not yet have a name. Deciding to visit the Dachau concentration camp, Kramer is dismayed to find out that it was opened in 1933, which means that eight years still had to pass before the United States entered the war in 1941:

> In an instant, his fury turned to ice. He knew exactly how the Nazis could kill for eight years without anyone doing anything. Nobody cared. That was what was happening with AIDS. People were dying, and nobody cared. As the anger rose again in Larry, he knew what he would do. That night, he jumped a plane to Boston. He quickly made his way to Cape Cod and spent his first night in the States at the Hyannisport Holiday Inn. Within a few days, everything fell into place. He found a cottage on the water and sat down to write a play that would force people to care (Shilts 2021, 358).

Kramer's encounter with the historical catastrophe takes place at the site of those atrocities and the extermination is not understood merely on a metaphorical level. Moreover, what happened in Dachau is not taken as an excuse to escape one's responsibilities, especially when it comes to reckoning with the major problems the United States are currently experiencing. On the contrary, the Holocaust forces the community to face the deaths from AIDS, which, although due to different causes, have been going on for years, as Kramer remarks, amid indifference. Unwilling to accept this state of affairs, Kramer takes action as an author, committing himself to stir people's consciences by writing what was to become his most famous play, *A Normal Heart*. Hence, this ethos topos of engagé literature is embraced not only by Shilts as the author of *And the Band*

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Played On, but is also staged in the text through the behavior of a character: both act as if they have a mission, which is to oppose, document, and denounce the wrongs that have been done (see Korthals Altes 2014, 182–183).

Although juxtaposing diverse catastrophes is far from unproblematic, writers dealing with disasters seem to agree that inaction and resignation before the suffering of others is in any case a moral posture to be rejected. Susan Sontag reflects on this in connection to AIDS and its interpretations:

> Stephen Jay Gould has declared that the AIDS pandemic may rank with nuclear weaponry 'as the greatest danger of our era.' But even if it kills as much as a quarter of the human race—a prospect Gould considers possible—'there will still be plenty of us left and we can start again.' Scornful of the jeremiads of the moralists, a rational and humane scientist proposes the minimum consolation: an apocalypse that doesn't have any meaning. AIDS is a 'natural phenomenon,' not an event 'with a moral meaning,' Gould points out; 'there is no message in its spread' (Sontag 1989, 86).

Although Sontag agrees that it is detrimental to give a disease a moral judgment, she cannot accept mass deaths with impassibility by relegating them among the natural phenomena. This sort of "complicity with disaster" (Sontag 1989, 87) is precisely what can invalidate crucial measures and hide human responsabilities related to extreme events: "The Indian and African famines were not just 'natural' disasters; they were preventable; they were crimes of great magnitude. And what happened in Minamata was obviously a crime [...]" (Sontag 2019, 31).

The comparative analysis of the four selected texts has brought to light significant elements which lead to hypothesize a shared poetics in contemporary nonfiction about disasters. However, this inquiry only constitutes a preliminary assessment, since the almost unexplored field of investigation necessarily requires more in-depth study and, above all, a broadening of the reference corpus. In any case, essential starting points emerged from the texts of Alexievich, Murakami, Alajmo and Shilts. In particular, the uses of the paratext, the modulations of authorial voice and the choral structure need to be foregrounded. If the paratext is where the author usually declares his ethical commitment, the methods and purpose of her/his project, at the same time the presence of such liminary sections, which have primarily explanatory functions, signals how such works do not occupy a stable and acknowledged place in the literary panorama,

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as suggested by their difficult categorization as well. Ultimately, although each author addresses and expresses his/her own original and personal view of the catastrophe, the choral form seems to be inevitably chosen as the most suitable narrative structure to represent disasters. The ability of the author, then, consists in providing a polyphonic and complex story of the disaster, showing how any attempt to narrate and understand it has to deal with multiple actors and layers of meaning.

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Carlos Tkacz

Uncharted Territory: Apocalypse, Jeremiad, and Abjection in Anne Washburn's *Mr. Burns: A Post-Electric Play*

Abstract: I use Anne Washburn's *Mr. Burns: a Post-Electric Play* to explore the ways in which contemporary social structures—generally pop culture and specifically entertainment—operate much like the historical, political, and religious structures of prophecy and apocalypse but, in these forms, explode the bottom of the u-shaped jeremiad and propel their characters into an abyss of 'bottomless memory' and society as abjection, using Julia Kristeva's formulation of the term; that is, these social structures have denied the characters in *Mr. Burns* access to the new future the jeremiad promises. Key to this reading is the concept of the jeremiad as a narrative structure of apocalypse and prophecy that brings the past into contact with both present and future and imaginings of wilderness as both a space of renewal and risk. I consider the place of self/subject and the role of art/literature in the tensions among the stories of the past, the realities of the present, and the unknowns of the future.

Keywords: apocalypse, postapocalypse, theater, jeremiad, pop culture

When the initial shock of the beginnings of the COVID-19 pandemic in early 2020 had settled, a more general anxiety about the future of the United States and of the world more broadly began to take shape. One manifestation of this anxiety in the US was the myriad of social movements that exploded that summer; both sides of the political spectrum, galvanized by issues laid bare by the pandemic and its handling, took to the streets and to the internet to make their grievances heard. At the same time, there was a parallel movement in which both sides, but perhaps especially the political Left, imagined the pandemic as an opportunity to make deep, structural changes to the social, political, and economic tapes-

try of the nation. As Stephen Leitheiser and Lummina Geertuida Horlings observe, "[T]he pandemic has merely laid bare the flaws of a system built on foundational vulnerabilities" (2021, 181).[1] According to Hanna Alhashimi and Vahd Nabyl Mulachela, these revealed flaws are a precursor to change, and they echo the sentiment that we should see the "COVID-19 pandemic as an opportunity" to solve those problems (2021, 3).[2] This rhetoric of opportunity in the face of crisis can be seen even in popular media; a simple search on Google shows a recurrence of phrases, all in relation to the pandemic, like: "opportunity to change" (Friedman and Goldberg 2022), "opportunity to reform" (Blumenthal et al. 2020), "a 'once-in-a-generation opportunity'" (Fore 2021), and, a "final opportunity" (Kraaijenbrink 2020). In his 2022 *State of the Union* President Biden paid lip-service to this trope, saying that the United States had "turned [the] crisis [...] into an opportunity." It is clear that this rhetoric, what is called the jeremiad, is a common response to times of crisis and doubt.

The Encyclopedia of American Literature (Imbarrato and Burkin 2013) offers some useful background on the jeremiad:

> Jeremiads were ministerial accounts of the misfortunes that befell and were going to befall the Puritans of seventeenth- and early-eighteenth-century New England. Jeremiads interpreted these misfortunes as punishment for social and moral evils, although they also held out hope for a happier future if proper reforms were instituted. A response to the waning of devotion seen in the second generation of Puritans, the jeremiads were a call to revitalize the original intentions and passions of the founders.

Sacvan Bercovitch, in *The American Jeremiad* (2012)*, lays out the shape as "first, a precedent [...] that sets out the communal norms," laying the foundation for "a series of condemnations that details the actual state of the community," which in turn gives way to "a prophetic vision that unveils the promises, announces the good things to come, and explains away the gap between fact and ideal" (16). We may consider this description of the jeremiad to be u-shaped: the lofty, ideal past arcing down into the lowly, morally degraded present and then gliding back upward toward a future that resembles the old ways.[3] Important here is the moment of the upward arc, the moment of the return toward a better version of humanity; implicit in this moment, and something we see in many jeremiads, are certain actions, structures, and beliefs—which vary depending on the source of the particular jeremiad—narrativized as necessary to achieve the promise at the end of the arc. In this way, the jeremiad both

1 This observation from Leitheiser and Horlings especially applies to food supply chains interrupted by the pandemic.
2 Here, Alhashimi and Mulachela are concerned, in particular, with diplomacy and national relations.
3 I am indebted to Dr. John Hay for this image of the jeremiad.

describes the perceived state of the current society and prescribes the path to something better, and that prescription is often the very point of the structure. The jeremiad, then, is a way to not only prophesy but also becomes a narrative structure through which subjects can attempt to understand their times in relation to what came before and what may come after.

The bottom of the u-shape is also fundamental, for it is there that the need for change is realized. This idea—that some sort of catastrophe is necessary for real, lasting change—is anything but new or historically uncommon. Indeed, the trope, if we may call it that, can be found in a number of social and political mediums, including literature. Here, the trope is a key feature in stories, whether literary or otherwise, that deal with apocalypse, especially those interested in the postapocalyptic state of being.[4] Mark Payne, in his book *Flowers in Time: On Postapocalyptic Fiction* (2020), explores how various authors have utilized this idea in their fictions. With these authors, "[p]ostapocalyptic fiction imagines forms of human freedom, sociality, and capability" that offers a deeper form of agency (3). Peter Y. Paik, in *From Utopia to Apocalypse: Science Fiction and the Politics of Catastrophe* observes that this framing "arises out of the awareness that the wellsprings of political conflict generally lie in the tragic struggle between two irreconcilable forms of the good" (2010, 19). That is to say, the human beings that live through and after an apocalyptic event are given access, precisely because of the catastrophic erasure of civilization, and, as such, civilized life, to ways of being "that afford the protagonists a more varied use of their own capabilities than was possible before" (3).

This new freedom, granted through disaster, undercuts the (unrealistic) idea "that a change for the better in human social relations can proceed directly from a vision of the collective" (Paik 2010, 25). Rather, the postapocalyptic subject, in order to attain this new freedom, "must be grounded in an individual, body-centric recovery of capabilities that only emerge outside of the polis walls" and that "can only emerge from a lack of political deliberation" (25–26; 3). From this perspective, the apocalypse is a "reset" that "rescales human aspirations for a better life from illusory macro social goals to the level of individual capabilities grounded in the human body" (3). This is truly a kind of jeremiad that enshrines past forms being while deriding current forms in that it imagines the return to a pre-polis state as a return to "the consistency and coherence of actuality" (2).

This particular jeremiad falls somewhere between what Bercovitch differentiates as the "European jeremiad" (2012, 7) and the "American Puritan jeremiad" (9). The former, according to Bercovitch, "pertained exclusively

[4] Payne offers a useful distinction between apocalyptic and postapocalyptic fiction: "A basic distinction can be made [...] between apocalyptic fictions, which focus on the end of days itself, and postapocalyptic fictions, which imagine that life that human beings might lead after the apocalyptic event has passed" (2020, 1–2).

to mundane, social matters, to the city of man rather than the city of God" (9) while the latter "entailed a fusion of secular and sacred history" and tried to "direct an imperiled people of God toward the fulfillment of their destiny" (9). Payne may not mention God in his analysis of postapocalyptic fiction, but the emphasis on catastrophe he traces as "the necessary ground for choosing the freedoms and capabilities we would want to see preserved in any future collective that might emerge from them" (2020, 34) and his reading that these fictions entail "not just the recovery of bodily capabilities but that this recovery will lead to new forms of ethicality" (164) instill a moral character to postapocalyptic possibilities that is hard not to see as quasi-spiritual. The apocalyptic event clears "a space of freedom that a would-be subject of freedom can access in order to enact their emergence as free" (34) in a postapocalyptic landscape freed of politics where the subject may live and learn "until the real world of becoming is available again" (169). It is in the word 'again,' here, that we see the back end of the jeremiad, the upward line of the historical arc as a "prophetic vision that unveils the promises, announces good things to come, and explains away the gap between fact and ideal" (Bercovitch 2012, 16).[5]

For this paper, I use Anne Washburn's 2012 play *Mr. Burns: A Post-Electric Play* to theorize the ways in which contemporary social structures—generally pop-culture and specifically entertainment—survive the apocalypse and how that survival affects the people who engage with them. Washburn's play is situated in a constellation of apocalyptic and postapocalyptic theater; as Peter Eckersall observes, "[c]ontemporary performance has played a crucial role in rendering apocalyptic futures and end times" (2019, 308). Some notable entries in this subgenre include: *Dance Dance Revolution* (2008) by Les Freres Corbusier; *The Honeycomb Trilogy* (2012) by Mac Rogers; *The Nether* (2013) by Jennifer Haley; *Radiant Vermin* (2015) by Philip Ridley; *The Children* (2016) by Lucy Kirkwood; and *Salvage* (2016) by August Schulenburg. In *Mr. Burns*, the structures of popular culture and media operate much like the historical, political, and religious structures of prophecy and apocalypse but that, in these forms, explode the bottom of the u-shaped jeremiad and propel their characters into an abyss of 'bottomless memory.' For Julia Kristeva, whose writing on abjection helps to make sense of what happens in the play, this abyss "is such a memory, which, from stopping point to stopping point, remembrance to remembrance, love to love, transfers that object to the refulgent point of the dazzlement in which I stray in order to be" (1982, 12).[6] In my use, when, as we shall see, the subject becomes the object—when the subject becomes the zone of apocalypse—'bottomless memory' becomes the moment of abjection, which Kristeva describes as "[a] bor-

5 Foucault's concept of 'biopolitics' is, as a general background, useful here as Payne emphasizes the individual. For Foucault, one of the principal features of modern human relations is a new form of power that "is applied not to man-as-body but to the living man, to man-as-living-being" and, furthermore, to "man-as-species." He specifies that State discipline, in this newer form, "tries to rule a multiplicity of men" through their "individual bodies" with surveillance, training, and punishment" (2018, 1442).
6 Kristeva uses the phrase "boundedless memory" on which I base the notion of bottomless in relation to the sublime: "As soon as I perceive it, as soon as I name it, the sublime triggers—it has always already triggered—a spree of perceptions and words that expands memory boundlessly" (1982, 12). While I do not consider the sublime in this article, I might argue that the effectiveness of *Mr. Burns*, its power and force, are related to its engagement with this perhaps darker side of the sublime.

der" and an "ambiguity," which is, in turn, "a time of oblivion and thunder, of veiled infinity and the moment when revelation bursts forth" (9). In *Mr. Burns,* this process leads to society-as-abjection, as we will see and return to at the end of this article; that is to say, these structures deny the characters access to the new future the jeremiad promises. Key to this reading will be the concept of the jeremiad as a narrative structure that not only describes but prescribes, theories of apocalypse and prophecy that bring the past into contact with both present and future, and treatments of the body as the zone in which these structures coalesce. *Mr. Burns*, then, considers the place of self/subject and the role of art/literature/[pop] culture in the tensions among the stories of the past, the realities of the present, and the unknowns of the future.

Washburn complicates the vision of the postapocalypse Payne (2020) and Paik (2010) explore through its representation of the ways in which the structures its characters lived in during their lives prior to the end of civilization continue on after whatever event it is that triggers said apocalypse. These structures have been long recognized: one need only think of Marxism's hegemony, Jung's archetypes, Saussure's signs, and of the deconstructionists and their ideas on subjectivity and identity formation; indeed, I will rely on these ideas to explore the ways in which Washburn envisions humanity in a postapocalyptic epistemological and semantic space. Perhaps closer to home, one only need to look at the ways in which memes perpetuate culture and become modes of thought and expression to see how semiotic and cultural structures can take on what appear to be lives of their own. Yet, Washburn offers something new to the conversation and thereby argues against the 'apocalypse as space clearing' vision that Payne (2020) explores in his text. According to Payne's readings, the apocalypse resets the world by clearing it of its ties to history, be they ideological, structural, or material,[7] allowing humanity to develop new ideas that harken back to previous abilities in the back end of the u-shape of the jeremiad. What the works he explores miss, when we take into account Washburn's work, are the ways in which these structures not only exist and perpetuate in human culture but also live in the human body through behavior. The recursive relationship between structures of culture and behavior points towards an integration in the body that simply cannot be undone overnight. The fact that this text is a play, embodied in actors on a stage and reproduced over different performances through time, is important, and I will return to that later. Rather, these behaviors immediately reassert themselves at the moment of the apocalypse and then continue until they coalesce into cultural and social forms that are not identical to the past but synthesize them with the new

7 Indeed, it would seem for the fictions Payne studies that the power of the apocalyptic catastrophe is that it does all these at once: "What all these kinds of postapocalyptic fiction have in common, however, is a commitment to staging human beings living on after catastrophe, and to showing why catastrophe is necessary for the new forms of human sociality they envision [.] […] The claim I make throughout is that while critical readings of postapocalyptic fiction have rightly identified its commitment to starting over, they have generally mischaracterized it as beginning at the macrosocial level with the social contract and other large scale forms of social organization, rather than the single human being and their body" (2020, 18, 21).
8 It should be noted that this synthesis carries with it "traces," to use Derrida's word, of the previous forms. As Derrida puts it, trace is the "common root, which is not a root but the concealment of origin and which is not common because it does not come to the same thing except with the unmonotonous insistence of difference, the unnamable movement of difference-itself" (1998, 93). Derrida is drawing from Freud here, who observes that "what is past in mental life *may* be preserved and is not *necessarily* destroyed" (1962, 18) in the "final form" of any development; Freud was writing of mental states and Derrida of the history of metaphysics. For more on the connection between Freud and Derrida, in this line of thinking, see the *Translator's Preface* of *On Grammatology.*

present.[8] *Mr. Burns* offers insight into the possibilities of the future by calling into question the imaginings of a hard break from the past and present, an idea that many ideologies, from communism to neoliberalism,[9] rely on for the fulfillment of their utopian ambitions. The past and present, as embodied realities rather than overarching concepts, are much harder to achieve. They have a mass and a gravity that extends further into the future than we might want to think.

Pop Culture Structures and Social Reconstruction

This, then, brings us to the world of *Mr. Burns,* where the characters survive a very real and complete apocalypse, that is the complete breakdown of the social contract, and enter into the postapocalyptic clearing left after a total catastrophe. They are in the position that apocalyptic 'realists' see as the necessary precursor to true change, to true revolution: the bottom of the u-shaped jeremiad. And yet, when we meet the characters of the play, who are in the forest in order to avoid the chaos happening in the world beyond,[10] they are discussing not their own futures nor the future of whatever society they will build but, instead, are trying to reconstruct from memory episodes of *The Simpsons.*[11] When Matt says, "It starts […] the episode starts with Bart getting letters saying 'I'm going to kill you Bart'" (Washburn 2014, 13), which is a part of a larger dialogue about the episode, two things are worth noting. The first is the emphasis on where the episode "starts"; given their place at the bottom of the jeremiad, the moment before the upturn, the characters are already harkening back to a previous (fictional) beginning, undermining their own supposed claim to a new future. We should also note the violence that enters into the narrative with this line. The episode they are referencing—which, we shall see, not only operates as a thread throughout the whole play but becomes the form of the lives of the characters—is *Cape Feare* (1993), which itself is an appropriation of 1991's film *Cape Fear,* starring Robert DeNiro, which in turn is a remake of the 1962 version featuring Gregory Peck and Robert Mitchum.[12] The films are psychological thrillers that hinge on perhaps the most egregious form of violence: rape. Note, as well, the recursive nature of these references; the *Simpsons* episode is a pop-culture parody of a remake of an adaption of a book. The ways in which art and culture filter through and trickle down various mediums into the lives of the consumers of that art and culture itself is an important theme of the play and offers a view as to how these structures of language—in this case story-

9 In this way, Payne's reading is less a break from previous understandings of apocalyptic fiction and more an application of this reliance on fundamental breaks—class war in communist thinking and technological intervention in the posthuman—to the apocalyptic through the event of the catastrophe.
10 The audience is never directly exposed to this chaos. Rather, they are given hints and clues about it only through the stories the characters tell.
11 The choice of *The Simpsons* is important, as the series represents the place where pop-culture and the issues of contemporary life intersect. Fink describes the show as "globally recognized" and as "a pop-culture institution […] whose major subject is popular culture itself" (2021, 15).
12 For more on the history of these films, which are adaptions of John D. McDonald's *The Executioners* (1957), see *Cape Fear* (2021) by Rob Daniel.

telling and character — become significant elements of both personal and social subjectivities.[13]

There are, however, moments in the first act where the reality of the situation interjects the pop-culture reconstructions of the characters. In the moments before Gibson appears out of the forest, the characters already in the scene hear his approach and arm themselves: "*SAM reaches behind him and pulls out a rifle. MATT pulls out a revolver*[…] *MARIA and JENNY have pulled out revolvers*[…] *JENNY has also pulled out a bowie knife*" (Washburn 2014, 21). Here, we can see that the specter of violence is always on the edges of their awarenesses; that is to say, the violence in the episode they are recreating is mirrored by the actual violence implicit in their situational reality. Gibson's appearance into the scene precipitates a conversation about the outside world, giving readers/viewers their first and perhaps only indicators as to the nature of the catastrophe that has befallen the characters. This is a bit of a digression — we will return to Gibson's appearance and eventual acceptance into the group — but an important one. While the audience is not given an exact explanation, it becomes clear some kind of massive electrical outage has led to a failure of nuclear power plants around "[t]he whole country" (23). The characters speak opaquely of the mechanics of nuclear power plants and about "cit[ies] […] put under quarantine" (24): "that whole system continues to operate and that the radioactivity, the rods, are fine, basically, for as long as there's electrical power to the plant" but "when the power goes out" (33) the system fails and the radioactivity leaks out, infecting the surrounding environment and the people in it. Multiple metaphors are at work here — one of particular strength is the need to continually feed systems that have become so fundamental to the operations of society[14] — but the image of radiation is of particular interest given the context of this paper. The half-life of U-235, the fuel nuclear reactors commonly used, is about 700 million years (Salters 2018, 1465). Radioactivity, in this play, speaks to the ways in which pop culture like *The Simpsons,* "drags along with it the whole of the previous metaphysics" (Derrida 1978, 251) of whatever came before; that is to say, there is no complete break so long as language and story continue through the event of the apocalypse. Just as radiation lives within the environment long after the event that allows for it to seep into the tissues and both the living and non-living, narrative has no form that "has not already slipped into the form, the logic, and the implicit postulations" of whatever comes after it (Derrida 1978, 250).

It is now that we may return to Gibson's entrance and acceptance into the group. His appearance from the forest disrupts the social unit already under construction in this part of the play; he is, at first, not

trusted and treated with suspicion, and, therefore, the threat of violence underpins their initial interactions with him. This can be seen in the very moment Gibson is accepted into the group, a moment that could have gone another way. When Gibson, somewhat suddenly, says, "O I'll stay away alright. I'll stay away… *forever,*" Jenny "[pulls] *out her gun*" (Washburn 2014, 36). In this "[g]*hastly moment,*" we see the hinge upon which social acceptance lies, what Latour calls the "ongoing process made up of uncertain, fragile, controversial and ever shifting ties" (2005, 28). This moment of acceptance is also the potential moment of abjection, the implications of which are violent. When Gibson explains himself, saying: "That's the line. It's: Oh I'll stay away from your son/alright" (Washburn, 2014, 36), he engages in Latour's "rule [of] performance" in which the "making and remaking of groups" relies on "to the means necessary to ceaselessly upkeep the groups" (2005, 35).[15] For this group, in this time, this episode of *The Simpsons* is the form of that means, and when Gibson signals his knowledge of that form, his willingness to fit into it, by providing the line the other had not been able to remember, he is almost immediately accepted a member. This pop culture knowledge, then, is "the hard currency of recruiting and extending" (Latour 2005, 218) that allows the individual members of the group to join together through this shared form. Ursula K. Heise's *Sense of Planet and Sense of Place* can be of use here to further understand Gibson's transition from outside to inside the group; for her, "modes of belonging […] are defined by human intervention and cultural history more than by natural processes" and are "painstakingly established and safeguarded through a multiplicity of political, social and cultural practices and procedures" (2008, 46). In *Mr. Burns,* the political and social have both collapsed, leaving only the shared cultural knowledge of the characters left for them to use as an organizing principle. In this situation, according to Latour, "[s]ubjectivity is not a property of human souls, but rather of the gathering itself" (2005, 218). In a way, the form of the group—in this case a form dependent on pop culture—comes to replace individual human subjectivity. Here, in the first act of the play, the characters are still in the early stages of that exchange; the second and third acts of the play continue that process.

In the second act, this process expands beyond individual subjectivity and becomes the new, rebuilt socio-economic structure itself, undercutting claims of the jeremiad by creating a social structure that is not new in the strict sense but instead is a reconfiguration of past social elements with new emphasis and focus. The second act takes place seven years after the initial catastrophic event, and it appears that society has somewhat recovered itself: the audience sees a "*cozy living room*" with

15 This process relies, at least in part, on performative language, what Jonathan Culler describes as "utterances [that] do not describe but perform the action they designate" (2011, 96). Culler goes further, writing that "the performative brings to centre stage a use of language previously considered marginal—an active, world-making use of language" that "transform[s] the world, bringing into being the things [it] name[s]" (2011, 97).

an "*armchair*" and "*TV.*" We are given a familiar, domestic scene: Gibson in his chair while "*QUINCY enters wearing an office suit, blouse, the heels, the leather purse, the earrings*" (Washburn, 2014, 42).[16] Yet, this is not a 'natural' or authentic scene of social cohesion, of restructured contemporary life after the apocalypse; rather, this scene is a scene within itself. As soon becomes clear, the characters are themselves playing characters now, recreating not the social (at least, not in its previous form) but instead are acting out a scene from an episode of *The Simpsons* on their stage within a stage; they have 'substituted' the form of the cartoon for the form of their social structures. This reproduction supplants all other needs. What follows is a discussion on how to best achieve the recreation they are striving for. When Sam shatters a mirror so as to make the flicker of their fake television—for they, it appears, still do not have electricity, a sign of the shallowness of their reconstruction—he says: "Sorry 'bout that folks. Towel's gone, didn't want to risk a blanket" (Washburn 2014, 50). There is an inversion of need here; Sam is willing to give up a mirror and a towel, two items that may have some survival value,[17] in order to improve the simulacrum of the episode they are acting out. This disruption of the hierarchies of need is apparently not local to their group; Maria points out later that "a guy in Dayton who has a stash of Diet Cokes" is selling them for "lithium batteries. 2 a can" (54). And while she recognizes the irrationality of the trade, she also admits that she would "wait until winter" so as to "have it over ice," relishing "[t]hat *pop* sound, the sparkly fizz" (54).[18] This line of cultural reproduction that hinges on the mass-produced culture and products of the pre-apocalyptic times is not limited to simple exchanges as those described above but has, instead, become the entire basis for the socio-economic structures of the new world they are actively creating.

As the second act continues, the audience is given clues as to how this new world operates. We learn that the characters are "buying lines" (61) from other groups with names like "The Primetime Players" and "The Reruns" (57) in order to recreate episodes "[p]eople remember loving" (58). Memory, specifically memory of cultural artifacts from the past, has become its own marketplace and has, in turn, begun to dictate the nature of their social structures. Rather than reading the moment to understand its import, to build something new and different, the characters are "negotiating for it" (57) through a dialectic that heavily favors past forms of entertainment over new ideas for social structuring. Capitalist culture—mass produced products like Diet Coke and pop culture television series like *The Simpsons*—becomes a form of monoglossia, which always operates as a justification for the past, a process that extends forward

16 The use of the article 'the' on this description indicates something timeless about these objects and indexes them as elements of social forms that are synonymous with the domestic scene being reproduced in the characters play-acting. .
17 As *The Hitchhiker's Guide to the Galaxy* reminds its readers: "A towel [...] is about the most massively useful thing an interstellar hitchhiker can have" (Adams 1980, 28).
18 There is something of what Timothy Morton calls "happy nihilism" in this conversation, where the forms of solutions this group has created in light of their situation "reduce[s] things to bland substances that can be manipulated at will without regard to unintended consequences." (2018, 52).

beyond the present, thereby prescribing what possible futures subjects have access to.[19] This, then, becomes their principal form of social interaction and seeps into other aspects of their lives. When they discuss their political, group dynamics, as Quincy says, „[o]bviously we can't decide every decision by quorum, but I think we should decide on a category of decision which is decided by quorum. And I think repertoire should fall within that category of decision" (57). As such, this new pop culture economy is the basis for the discussion; is the principal problem their politics needs to solve. But this new structure seeps even deeper than their economy[20] and becomes the way in which they are "trying to create a […] richer sense of reality" (70). When Quincy argues that "giving everything motivations" goes against "the *point* of a cartoon," that the main purpose of what they are doing is that there is "no consequence," he asks and answers himself: "Where else do we get to experience that, *nowhere*" (70). Maria responds that they "have an opportunity here to provide...*meaning*," to which Quincy responds: "Meaning is everywhere. We get *Meaning* for free, whether we like it or not" (70). This argument indicates the tensions between simply existing, that is surviving, and 'living'.[21] Quincy's argument here contradicts itself; if meaning is "everywhere," as he says, then it is also in *The Simpsons* episodes he is trying to separate from meaning. This fact undercuts the possibility that the arc of the jeremiad can signify a complete break from meaning, as the apocalyptic event itself is pregnant with a meaning that drags into it the ontologies and epistemologies of the past, perhaps refracting and refocusing them in whatever comes next but never removing them completely.

Pop Culture Becoming and the Zone of Apocalypse

This is what happens, then, in the third act of the play when we find the characters far enough in time from the apocalyptic event that they might be considered on the upward arc of the jeremiad. The stage directions here are telling: "*75 years later. / Ranged across the stage: a chorus of the citizens of Springfield. / Their faces bear a blurred similarity to faces we may recall from the TV series: Chief Wiggham, Nelson, Principle Skinner, Apu*" (Washburn 2014, 74). Given enough time, they have now 'become' the characters they played. The very reproducibility of *The Simpsons* has, in turn, caused the characters—men and women who survived a catastrophic event that should have, given the idea of apocalypse as a kind of clearing out, been given access to forms of being that bring back their

19 This understanding of monoglassia and its application to popular culture is derived from Bakhtin: these structures become, as Bakhtin points out, "[t]hat center of activity that ponders and justifies the past and is transferred to the future" (1982, 31) and that is, "as an essentially indifferent continuation of the present or as an end" (1982, 20), "transformed into the absolute dogma it had been within the narrow framework of a sealed-off and impermeable monoglossia" (61).

20 The play itself uses the word "[s]eepage" when Gibson is discussing the radiation event that has caused their apocalypse: "We don't even know what's been seeping all this time from. Wherever through shale or any or […] We're breathing, we're drinking, we're eating. It's all broken open. You know it has" (2014, 58–9).

21 Foucault's aforementioned biopolitics becomes pertinent again here, as does its attendant biopower. According to Paul Rabinow and Nikolas Rose, "the concept of 'biopower' serves to bring into view a field comprised of more or less rationalized attempts to intervene upon the vital characteristics of human existence" (2006, 196–7). In a way, then, pop culture might be considered a form of biopower.

previous capabilities—to reproduce the culture of the previous era in their own subjectivities. This process makes the self, then, the space of reproduction. The role of the body is important here, but first note the movement of the subject from the consumer or critic of culture to the zone of it, from the producer of culture to the one being produced by it.[22] This is an extreme version of the observation Mikhail Bakhtin makes, namely that humans "experience [the] adventures" in the stories they tell and that these stories "become a substitute for [their] own lives" (1982, 32). While Bakhtin is here focused on the novel, the fact that this work is a play adds another dimension to the intersection between pop culture and subjectivity. For if novels, as Bakhtin adds, allow "the individual [to acquire] the ideological and linguistic initiative necessary to change the nature of his own image" (1982, 38), so the more does theater, which hinges on actors embodying characters on stage in real time before a live audience.

While I am primarily looking at *Mr. Burns* as a text, an extended note about the actual performance is cogent here. Just as *Mr. Burns* recursively loops both the various ontologies of the pre- and postapocalyptic lived experiences of the characters with the narratives from either side of the divide, the medium of the stage play adds to that "strange loop form of ecological being" (Morton 2018, 37)[23] by including in it the layers of performativity stage narratives require and by collapsing the distances between story and audience, character and actor, narrative and discourse. This makes visible "the unconscious style of a certain mode of human beings sprayed all over what lies outside the human" (Morton 2018, 23). Given that, as observed by Jessica Teague and who is here commenting on her own experience seeing a performance of *Mr. Burns*, "the characters can only reproduce these multimedia works orally through labored acts of recollection and performative speech" (2021, 191), the theatrical performance takes on a reflexivity that deepens the structures of reproducibility the play is engaged with (think back to my previous discussion of the many layers, from book to film to remake to television show, of pop culture), which in turn further exemplifies my argument. The "performance is transformative" and hinges on "the [audience's] ability to recognize the intertextual references and quotations," thereby bringing the audience into the very structures the play is exposing (Teague 2021, 191–192). Furthermore, the performance of the third act, in terms of style, imposes still more cultural layers onto the characters—and the audiences—by "harken[ing] back to classical theatrical traditions such as Greek tragedy, Japanese Noh theater, and European opera," signaling the "power and persistence of [the] aesthetic forms" subjects engage with (Teague 2021, 193). The performance

22 Vygotsky speaks to this when he writes: "[A]rt takes its material from life, but gives in return something which its material did not contain" (1971, 243). For Vygotsky, the "new principles" and the "reorganization of new social and economic processes" that are a necessary part of the unfolding of human history will result in "a rearrangement" and a "'remolding of man[kind]'" according to these new realities. (243) In this light, it becomes clear that the "role of art will also change" for "art will have a decisive voice in this process" and "[w]ithout new art there can be no new man" (259).

23 This is what N. Katherine Hayles describes as "the linguistic code system" of "technological embodied practices" in which humans are "necessarily enmeshed" (2012, 134).

itself, then, adds to the work the play does in deconstructing the narrative of the apocalypse that engages in the structure of the jeremiad.

Laid bare in this final act, both in the text and in the performance, is "how the connections between bodies and techniques [accelerate] and [catalyze] changes in conscious and unconscious assumptions about the place of the human in relation to language and code" (Hayles 2012, 157). This, then, becomes the logical result of the apocalyptic subject filtered through the catastrophic destruction of at least half of the "techno genetic cycles" (Ibid) that created them: they become all form and no content in a kind of subject-Armageddon, a kind of abjection of subjectivity. As Kristeva observes, abjection, especially in the apocalyptic genre but perhaps in all literature, hinges on "the fragile border" in which "identities… do not exist or only barely so — double, fuzzy, heterogeneous, animal, metamorphosed, altered, abject" (1982, 207). This describes almost exactly what has happened to these characters and what has happened, as a result, to society. The etymologies of the words apocalypse and Armageddon become noteworthy and relevant, as we consider how "technical media" become "causal agents," turning the subject in a "deterritorialized spatial dynamic" by being, in this reversal, "the source rather than the expression of a conscious subject" (Hayles 2012, 223). The subject here 'is' Armageddon — that is, the field or location of the final battle — and this process itself is the true apocalypse (Lagasse 2018) — that is, the unveiling that is the deeper definition of the word.

Just as the words apocalypse and Armageddon are generally associated with physical violence, the postapocalyptic condition, here represented through pop culture, of the human subject does a kind of violence through the very "[c]onstant presence in social and physical space" that the narrative frames the characters embody end up reproducing (Morton 2018, 50). When the end of the play explodes into violence, it is not just the identities the characters have taken on that are attacked but their bodies as well; the subjective violence of the postapocalyptic process results in embodied violence. This breakdown of subjectivity — which is in truth a kind of substitution — and of body then rejoins the etymologies of apocalypse and Armageddon as they all indicate an epistemological breakdown as well. In the end, when Bart sings, "And I do not know what next will be/ and I cannot know what next I'll see" (Washburn 2014, 94), he indicates the potential abjection on the other side of the apocalyptic unveiling. That is to say, he reveals the fault in the line of thinking that we began with, namely that the apocalypse will clear space for new possibilities to emerge and the jeremiad makes the upward turn towards a better future. Rather, the apocalypse instead reveals and potentially reproduces the emptiness

of the moment insofar as that moment is a reflection of the dispersed and replaced subjectivity of the abjected individual, who is thrust through the bottom of the u-shape into unfamiliar space. While Bart and all the rest strike a defiant and hopeful note about the future, ending the play with the lyrics "Yes I will meet life so gloriously" (95), we must ask the question: who is singing this? The characters we started the play with are, by this point, gone in terms of their subjectivities, and all but Bart are killed in the final scene. These narrative points undercut any sense of hopefulness the audience may feel at the end, as does the Sisyphean final image of Mr. Burns pedaling the treadmill/bicycle contraption to failure, with which the lights go down and the narrative ends.

Conclusion

This returns us to the jeremiad and to where we began this article: the new, better future promised by the jeremiad is lost forever by virtue of the very past and present the jeremiad drags into that future that then condemns the subject to complete abjection. The jeremiad depends on social structures for its reproducibility and on mythic structures for its foundations (generally biblical). When we replace these social and mythic structures with pop culture, the end of the jeremiad is lost due to the reproducible tendencies of pop culture structures that embed them too solidly in our culture.[24] Now we must consider where that leaves these characters (and us). They end up abjected, losing their subjectivities and their bodies through forms of violence. They are the makers of their own demise. They create dependencies they cannot sustain but that they cannot live without. This at least complicates, if not completely deconstructs, the "realisms" portrayed in Payne and Paik's readings of apocalyptic fiction and of catastrophe and in the rhetoric of opportunity that surrounded—and still surrounds to some degree—the COVID-19 pandemic. These fictions are fundamental to our understanding of human perspectives of the future: "far from being a minor, marginal activity in our culture, as general consensus seems to have it, this kind of literature, or even literature as such, represents the ultimate coding of our crises, of our most intimate and most serious apocalypses" (Kristeva 1982, 208). In some ways, we might consider these optimisms to be at best hopeful fictions and at worst forms of blockage that keep us from truly looking at ourselves and looking at the world we have created; a world then reflected in our own subjectivities and that recursively affects our own abilities to be subjects in that world. Here is the kernel of truth in Payne's analysis: humans are

24 It should be noted, also, that the previous version of the jeremiad too contained something of an empty promise for similar reasons.

different now than they were in the ancient past, a truth we read in the stories we tell and the lives we live. This faith in the resetting power of apocalypse and catastrophe is what Washburn's *Mr. Burns* calls into question. From this angle, the jeremiad is never a return to some previously attained glory, nor is it a path to something fully new; instead, it leads to epistemologies and ontologies that synthesize the past and present. Key here is the directional arc of the jeremiad: it is never a circle, never a true return. Rather, at the moment any generation begins to traverse the valley of the path, they break through the line and into something both old and new, for the very act of traversing the line is a kind of constant remaking and reproducing, for better or for worse, that leaves the human different than it was before and sets the next generation off into uncharted territory.

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Bren Ram   *Lucy*'s Apocalypse:
Placing the End of the
World in Narrative

Abstract: The study of apocalypse
stands to gain much from literary perspectives because imaginative nar-
rativizing, or the practice of arranging events into temporal relationships
with one another, is necessary for understanding what is meant by 'end'
(as in 'the end of the world'). However, narratology — the study of narra-
tive — has a troubling tendency to misrecognize this temporal arrangement
as the sole meaning-bearer when it comes to plot. In this article, I make
the case for a new understanding of narrative, centering "apocalypse" as
an imaginative practice. Using Jamaica Kincaid's *Lucy* as a case study, I sug-
gest that, instead of seeking universal narratological laws about worlds and
their endings, apocalypse studies would benefit from an understanding of
apocalypses as local and historically informed. Colonialism is a world-end-
ing practice creates poetic and aesthetic constraints which necessitate a
non-universalizable understanding of apocalypse as a condition that is vis-
ited upon people unevenly. Drawing on Caribbean thought, narratology, and
recent work in apocalypse studies, I read *Lucy* to show how it is possible
for a narrative to be post-apocalyptic without belonging to the genre of
speculative fiction; with colonization acting as the apocalyptic event. Such a
practice of reading will help clarify what is meant by "the end of the world"
and make it possible to understand how "apocalypse" functions even in
situations and stories that are not about disasters and cataclysms. Finally, I
suggest that reading practices that center apocalyptic poetics bear decolo-
nial possibilities in their unsettling of White, imperial futurity.

Keywords: Narratology, novels, poetics, aesthetics, Caribbean, Carib-
bean literature

Lucy's Apocalypse: Placing the End of the World in Narrative

'Apocalypse' is a literary mode. The origins of the word itself speak directly to this designation—it named a genre of ancient Jewish prophetic text, based on the first word of the *Book of Revelation* ("*apokálypsis*") which appears in the Christian New Testament. Moreover, though, 'apocalypse's' textuality appears through its contemporary deployment as the signifier for '*the end.*' Imaginative narrativizing—that is, the literary practice of arranging events into temporal relationships with one another—is necessary for the contemplation of the end; if something is to end, it must have a temporal relationship to the world. It seems intuitive, then, that the study of the end benefit from perspectives characteristic of the study of literature, as theorists such as Frank Kermode (2000) and Paul Ricœur (1985) have suggested. After all, when a novel ends, a world ends—a diegetic world, that is, the world of a story.

Unfortunately, though, the word 'world'—as in 'the end of the'—rarely appears in studies of narrative endings. Narratology, the field of literary studies that takes as its primary object the form and structure of stories, is preoccupied with the temporal at the expense of the spatial. For the purposes of studying the apocalypse, such a temporal framing might seem prudent. However, in his incisive monograph *Tropical Apocalypse*, Martin Munro (2015) offers an exciting invitation: to consider apocalypses as locally and historically informed. Treating Caribbean history, thought, and literature (and focusing on Haiti in particular), Munro argues that to say that an apocalypse is the end of *the* world is to ignore the localized, specific worlds that have already come to an end at the hands of ecological crisis, war, famine, slavery, criminality, and colonization. Specifically, he supposes that the Caribbean apocalypse "has its own particular meanings and paradoxes [...] most notably in the sense that the apocalypse has endured for centuries, and that the end times have no apparent end" (Munro 2015, 2). This situates the apocalypse not just as a global phenomenon but also as specific and local. In the Caribbean, Munro suggests, "one has a particularly precarious situation, and a sense that the region stands at the edge of an apocalyptic abyss that is deeper and more long-standing than the one envisioned [...] for the Western world. One feels indeed that the Caribbean has been [...] living its own version of the end times for centuries" (Munro 2015, 7). While this sweeping claim applies unevenly across the Caribbean, its provocation is useful in its gesture at disturbing the smooth narrative of progress that the West applies to said region.

Jamaica Kincaid's *Lucy*, a novel about a woman who leaves the West Indies to become an *au pair* in North America, is not a Francophone text like the ones Munro analyzes, and the entirety of the novel takes place outside of the Caribbean. However, while the novel begins as Lucy arrives in the American city where she is to live, it is shaped by experiences, characters, and events that are situated non-sequentially and in a different place (that is, Antigua). As narrator, Lucy uses her past childhood experiences to contextualize and inform her present (and future) ones, with her understanding of herself rooted in a space and time that turns on the axis of colonialism. *Lucy*'s plot extends beyond its first and last pages, but not in the sense that there are more narrative events not contained in its text; rather, *Lucy*'s diegetic world grants it an aesthetic context which cannot be universalized due to its historical specificity. Lucy, as narrator, writes through a sense of time which is ruled by the anticipation of conclusions to come: a future that, paradoxically, coheres around endings. In other words, the only future worlds available to her are from her past: a temporal constraint placed on her by the historical condition of colonialism. Colonialism's influence on Lucy's narrative proves that a sense of endings which misrecognizes time, history, and world as separate and cordoned-off from one another is too narrow and misplaces aesthetics onto a demand for Lucy's narrative to close or satisfy. Indeed, *Lucy*'s attention to endings confirms Jaccques Rancière's observation that aesthetics is best understood in terms of "who can have a share in what is common to the community [which] is based on what they do and on the time and space in which this activity is performed" (Rancière 2006, 12). In other words, it suggests that the local apocalypse seeps beyond the strict bounds of narrative to inflect not just representations of disasters, endings of texts, or post-apocalyptic tales, but the ways that stories themselves are told; that is, their poetics.

My aim in this article is thus twofold. First, I read *Lucy* for the local apocalypse: that is, the kind of apocalypse that is legible through the lens of colonialism as a world-ending practice that has temporal *and* spatial resonances. Second, and emerging from this first practice of reading, I seek an understanding of apocalypse as a narrative conceit that is flexible, open, and non-universalizable. Indeed, the traditional modes of studying "narrative" may be wholly inappropriate for this kind of investigation; instead, I forward poetics—defined by Lauren Berlant as "a theory-in-practice of how a world works"—as a more useful mode for understanding what is meant by the end of the world (Berlant 2011, 16). If apocalypse studies as a field of inquiry is to grow and grant understandings of non-linear, non-teleological, and non-redemptive kinds of thinking, I argue, it

must let go of the kinds of narratological parsing that would see time, place, history, and culture as independent variables. The way 'the world' ends in *Lucy* — while still, paradoxically, going on — gestures towards the capacious thinking that will allow us to widen our scope beyond speculative fiction and disaster stories to see the machinations of apocalypse everywhere.

The current state of narrative theory does not leave much room for considerations of plot as more than an arrangement of events in time. Narrative theorists from Paul Ricœur to Peter Brooks prefer the term "fabula," a term which emerges from Russian Formalism. Russian Formalism was an early 20th century school of literary criticism wherein the 'functions' of poetic language take center stage, often in the form of diagrams and formulas, and emerges from the work of such towering figures as Vladimir Propp and Viktor Shklovsky. *Fabula* is a useful term: it refers to the chronological sequence of cause-effect events in a narrative, and thus refers to the structural components of what we might call 'plot.' In terms of the study of endings, this sort of form-content separation allows the end of a *fabula* to be considered separately from the end of the text in which it appears (e.g. in Christopher Nolan's 2002 *Memento,* the death of the main character marks the end of the *fabula,* but is the first scene of the film). The term also necessitates some arbitrary determinations. For example, Guiliana Adamo supposes that the end of a *fabula* would be best considered from a "compositive and narrative" perspective whereas the end of a text — which she defines as nothing more than its last thirty "lines" — is better suited to a "stylistic and linguistic perspective" (a view which would hold that the compositive character of a narrative is not part of its style) (Adamo 1995, 87).

One of narratology's most pervasive tropes in describing endings, though, is to liken them to deaths. In his vital essay *Freud's Masterplot,* Brooks links the structure of narrative (beginning, middle, and end) to the structure of life (birth, life, and death). Brooks reads Sigmund Freud's *Beyond the Pleasure Principle* to give psychoanalytic scaffolding to a very common tendency: to see a text's *fabula* as mimetic of life in general, and to read a narrative as if it were a living being. From this perspective, aesthetic judgments of narrative endings depend on the play of elements such as closure, satisfaction, and fulfillment; mirroring Freud's description of cells maintaining homeostasis: the narrative is "maintained in a state of tension, as a prolonged deviance from the quiescence of the 'normal' […] until it reaches the terminal quiescence of the end" (Brooks 1977, 291). A series of 'incorrect endings' are threatened (in *Pride and Prejudice,* for example, will Elizabeth pursue Mr. Collins? Will she end up with Mr. Wick-

ham?) until the ending finally confirms what we've always known (she was destined to be with Mr. Darcy all along).

A focus on narrative as a series of events (*fabula*) that can be "in order" or "out of order" in a text, all leading towards a 'terminal quiescence,' privileges time over space and instills a sense of 'progress' towards the horizon of the correct ending. Kermode analyzes this supposition in *The Sense of an Ending*, in which he proposes 'apocalypse' (specifically, the Christian *Book of Revelation*) as a heuristic by which to read narrative endings. This theological approach is, by definition, literary. The meaning of the Greek word *apokálypsis* carries over into its English definition, which the *Oxford English Dictionary* records, first, as "[t]he 'revelation' of the future granted to St. John in the isle of Patmos" and "[t]he book of the New Testament in which this is recorded" and, second, "[b]y extension: Any revelation or disclosure" (*OED*, 2d edn., s.v. "apocalypse"). The more expected meaning, which would deal with the end of the world, currently exists in the *OED* only in draft form, and even then only as an extrapolation of the "events described in the revelation of St. John." Ricœur, observing that *Revelation* is the last text of the Bible, supposes that "Apocalypse can thus signify both the end of the world and the end of the book at the same time" (Ricœur 1985, 23). The world as book, the book as world: this is the aesthetic dream of closure which animates Christian theological apocalypse (and, as a result, the narrative theories to be gleaned from such a perspective). The Christian concept of the impending end is part of a tradition which, Kermode argues, divides history into "fundamentally arbitrary chronological divisions" which "are made to bear the weight of our anxieties and hopes" (Kermode 2000, 11). By this, Kermode means that the organization of time proposed by apocalyptic eschatology (or even by temporal delineations like millennia and centuries) gives meaning to human history by implying a narratively coherent teleology. Indeed, Kermode slips back into a familiar analogy between narrative and life: "Men [sic] ... to make sense of their span […] need fictive concords with origins and ends, such as give meaning to lives and to poems. […] [T]he End is a figure for their own deaths" (Kermode 2000, 7). Just like poems and novels, humans need "The End" to confirm the meaning of what has come before.

Kermode's interpretation is textually rooted. The apocalyptic texts which made it into the Bible, *Daniel* (in the Old Testament) and *Revelation* (in the New), use prophecy *ex* ēventū to grant legitimacy to their predictions and to periodize history in a way that grants it an overarching narrative. Like Brooks, who observes that a narrative's ending "determines, shapes, necessitates" its content (Brooks 1977, 284), Kermode argues that the expectation of an apocalyptic end-time causes people to make "imagi-

native investments in coherent patterns which, by the provision of an end, make possible a satisfying consonance with the origins and with the middle" (Kermode 2000, 17). These coherent patterns, borne out of attempts to predict the second coming of Christ, persist despite the failure of the apocalypse to appear. So, Kermode concludes, "[i]ncreasingly the present as 'time-between' came to mean not the time between one's moment and the Parousia [second coming], but between one's moment and one's death. This throws the weight of 'End-feeling' on to the moment" (Kermode 2000, 25). Unfortunately, though, Kermode leaves the difference he assumes between theological apocalypses and literature unquestioned. Ricœur's interpretation of his study makes the astute observation that this new interpretation of 'time-between' could indicate "the conversion of the imminent end into an immanent end" which is an important distinction that allows the apocalyptic to appear in other places than the end of a story (Ricœur 1985, 24). However, it does not seem that Ricœur is speaking of an apocalyptic poetic structure; instead, he stops at the reader's expectation of a coming end to the text they are reading.

But what if the "end" has occurred before the events of the novel even commence? *Lucy* is the ideal case study for such an investigation because it shows how the Caribbean apocalypse—as Munro describes it—ripples beyond geographic (and narrative) borders to create implications elsewhere. Kincaid herself has treated this very topic in her essay collection *A Small Place*, which invites readers to consider the legacies of colonialism as it manifests in the contemporary tourism economy: "people cannot see a relationship between their obsession with slavery and emancipation and their celebration of the Hotel Training School" (Kincaid 1988, 55). A richer reading of *Lucy* emerges when "apocalypse" becomes a non-universal way of understanding endings, instead probing the conditions of possibility under which certain apocalyptic poetics become legible. Put simply, the connection between worlds and endings is, first and foremost, an aesthetic one, which, in turn, relates to what it is possible to see, experience, and comprehend.

The aesthetics of endings plays out in *Lucy* when the main character considers her relationship to colonialism. As a child, her chafing against her "place" on Antigua springs not from a civil scene but from a scene in choir class:

> I had realized that the origin of my presence on the island—my ancestral history—was the result of a foul deed; but that was not what made me, at fourteen or so, stand up in school choir practice and say that I did not wish to sing 'Rule, Britannia! Britannia, rule the waves; Britons

never, never shall be slaves," that I was not a Briton and that until not too long ago I would have been a slave. My action did not create a scandal; instead, my choir mistress only wondered if all their efforts to civilize me over the years would come to nothing in the end. At the time, my reasons were quite straightforward: I disliked the descendants of the Britons for being un-beautiful, for not cooking food well, for wearing ugly clothes, for not liking to really dance, and for not liking real music. If only we had been ruled by the French: they were prettier. (Kincaid 1990, 135–36)

Here, Lucy links her "presence on the island" and her "ancestral history" together so closely that they don't even need a conjunction to bind them (just a dash). However, the "foul deed" of colonialism is not the motivator for her disobedience; indeed, she indicates, tongue-in-cheek, that colonization by the "prettier" France would have been acceptable. Her discontent, figured in scenes of poetry and music, is of a specifically aesthetic character that is particular to her — e.g. the Britons don't "really" dance or like "real" music, by Lucy's standards, but by *their* standards she remains uncivilized. The colonial project of aesthetic discipline can only be "wonder[ed]" at "[a]t the time" [by the choir mistress], and then retrospectively evaluated "in the end."

This passage makes a few very elegant and complicated connections: the historical conditions of British colonialism have determined Lucy's presence on the island and the aesthetic regime imposed upon her, and as a result her aesthetic tastes are informed by historical conditioning. But the temporal character of those conditioned aesthetics coheres around the difference between "in the end" and "[a]t the time" (which is, in this passage, a period: a mark at the end of a sentence, a span of narrative time — or, as Jacques Derrida would put it — "[t]he unheard difference between the appearing and the appearance [between the 'world' and 'lived experience']" (Derrida 1976, 65). If the aesthetic experiences demanded of Lucy cannot be separated from their time, their history, and their world, then neither should *fabulas* be divorced from worlds and histories in which they occur, and which also come to a kind of apocalyptic end when the novel does.

The school figures often as a site of colonization in *Lucy*. At school, she was forced not only to sing *Rule, Britannia* but also to memorize and recite William Wordsworth's *Daffodils*. This encounter further establishes poetics as the primary way she figures colonial difference and the time lag that constitutes those aesthetic experiences. After she recites the poem at the age of ten, "everybody stood up and applauded with an enthusiasm

that surprised me, and later they told me how nicely I had pronounced every word, how I had placed just the right amount of special emphasis in places where that was needed, and how proud the poet, now long dead, would have been" (Kincaid 1990, 18). This sentence, a series of temporally-related phrases strung loosely together by commas, indicates that the content of Wordsworth's poem is not as important as Lucy's ability to imitate Britishness. Lucy's relationship to the text of the poem occurs on a purely aesthetic and performative level, that is, her ability to speak herself, as a colonized subject, into being. The value of her performance, communicated to her "later," is measured in terms of her voice (pronunciation, emphasis, etc.) and also in terms of how pleased "the poet, now long dead, would have been." The conditional perfect tense situates the aesthetic value of Lucy's performance in terms of the retrospective meaning granted to it by a figure who is no longer alive. The "foul deed" of colonization determines everything available to Lucy for the aesthetic construction of her sense of self. The *Daffodils* recitation separates her temporally and physically from the aesthetic experience expected (and demanded) of her: by the time she sees daffodils in person, Lucy is an adult. Aesthetically, Lucy constantly finds herself arriving in "a world that has already been made for her" by the colonial project (Joseph 2002, 674). Poetics, then, is a practice of world-making as well as world-destroying.

'Poetics' is a slippery term; my reading here emerges from the work of Édouard Glissant, whose *Poetics of Relation* takes a uniquely placed and historically legible approach to the concept. For Glissant, poetics is best understood as the process by which "each and every identity is extended through a relationship with the Other" (Glissant 1997, 11). He critiques structuralist approaches to poetics, accusing them of an obsession with language itself. This narrowness betrays a disinterest in the 'world;' "[r]ather than discovering or telling about the world, it is a matter of producing an equivalent, which would be the Book, in which everything would be said [.] [...] The world as a book, the Book as world" (Glissant 1997, 25). Here the resonances with Kermode's invocation of the Bible as the story of everything, from beginning to end, ring through even this secular reading. Glissant is skeptical of universalizing claims which would say "the Book" is a metaphor for all of life, all of time, and so on. Instead, he forwards a kind of poetics that is informed by the history of colonialism and the global movement of people and capital, with the anthropological "discovery of the other" losing its charm to the "end of the world [...] in the geographical sense" (Glissant 1997, 26). In other words, what is poetically apocalyptic in terms of history is imperialism; the very notion that the sun would never set on the British empire, for instance. With no more

"world"—no more Other—poetics reaches an impasse of meaning, leaving behind nothing but the kind of meaningless repetition and aesthetic homogeny that makes Lucy's school have all the children sing *Rule, Britannia*.

Interestingly, Munro classes Glissant among the "least apocalyptic" of his Caribbean contemporaries, because he is interested more in the "silence and absence" constituted for the region by colonialism than in the drama of apocalypse (Munro 2015, 13)[1]. However, "apocalypse" does not have to mean hopeless cataclysm. Jessica Hurley, one of today's foremost thinkers dealing with the notion of "apocalypse" as a narrative tool, suggests a theory of apocalypse that lets go of the redemptive progress narrative in favor of radical futurelessness. According to the imperialist narrative of progress, the present is the necessary and unchangeable condition for the future; if we seek a practice of reading that is anti-colonial, then reading apocalyptically might mean allowing our relationship to the future to become murky. In other words: "If the dominant culture pairs White heterosettler futurity with minority futurelessness along a determinately teleological timeline, then cutting out the future from this timeline becomes a way of disrupting the temporal structures that organize social domination" (Hurley 2020, 23). To break out of the colonial poetics that Glissant criticizes, apocalyptic poetics could be "a potent force in redefining reality against colonial norms" (Hurley 2020, 191).

Hurley's suggestion that "apocalypse" could be a useful decolonial heuristic is striking. However, as an Americanist, she is working through the lens of North American settler colonialism, which operates on an understanding of space (westward expansion) and time (the realization of manifest destiny) which is distinct from the imperialism visited upon the Caribbean. What I glean from her work is, first, that the specifics of space and time that are local to a narrative are essential to the way apocalypse emerges in it; secondly, that "apocalypse [can be] defined not by the sudden absence of the future but rather by the impossibility of constructing any mechanism by which we might imagine a specific future or futures" (Hurley 2020, 191). It is my project to examine what narrative theory stands to gain from the centering of poetics as practices of world-making that are uniquely textual. Instead of proposing an alternate theory of narrative, my aim is to show the fissures where the existing progress-driven structure closes futures off from itself.

In *Lucy*, for instance, the daffodils figure in a closed aesthetic loop that shows that the future has been, apocalyptically, cut off. Mariah, the white woman for whom Lucy works in the United States, brings her to a field of daffodils she thinks her *au pair* might enjoy. She thinks they are

[1] It is also worth noting that his work is mainly concerned with the "incomplete liberty" of the French Caribbean, of which Antigua is not a part (Munro 2015, 13).

about to share in a common experience: a universal experience of beauty. However, Lucy reacts negatively by describing her childhood experience: "Mariah, do you realize that at ten years of age I had to learn by heart a long poem about some flowers I would not see in real life until I was nineteen?" (Kincaid 1990, 30). History has placed an aesthetic barrier between the two women, with one side of the barrier creating the conditions under which a common experience becomes impossible. Lucy explains: "I had cast her beloved daffodils in a scene she had never considered [...] [S]he wanted me to love this thing—a grove brimming over with daffodils in bloom—that she loved also" (Kincaid 1990, 30). Mariah situates herself as part of the regime demanding particular aesthetic experiences of Lucy, but access to the experience of viewing daffodils is something from which Lucy has been separated—both temporally, in that she would not see them for years, and spatially, in that they were not in Antigua—by colonialism. What is visible and audible, to both of them, is daffodils in the abstract and the words of Wordsworth's poems; but their spatio-temporal social difference renders their common experience anything but common. Colonial aesthetics is an attempt to fold everyone into having access to the 'common'—in this instance, the daffodils—but the political bar placed over subjects of colonization is also an aesthetic one (and one specific to the physical distribution of sensible aesthetic experience). So, when she tries to explain herself to Mariah, Lucy can only ask herself: "Where should I start? Over here or over there?" (Kincaid 1990, 29).

Lucy's sense of temporality itself is overwritten by colonial history. This is evidence that endings and futurity are poetic categories: what is available to Lucy for the construction of her future is controlled by aesthetic qualities. When remembering a woman named Sylvie from her childhood, Lucy begins with a description of Sylvie's face: "she had a scar on her right cheek, a human-teeth bite. It was as if her cheek were a half-ripe fruit and someone had bitten into it, meaning to eat it, but then realized it wasn't ripe enough" (Kincaid 1990, 24). The bite mark is a result of a quarrel with another woman which sent Sylvie to jail, but Lucy supposes that "the mark on her face bound her to something much deeper than its reality, something that she could not put into words" (Kincaid 1990, 25). Lucy's conviction is colored by Sylvie's frequent use of the phrase "years ago, when I was young," which Lucy recalls often in her adult life (Kincaid 1990, 22). A series of temporal figurations informs Lucy's memory of this woman. First, that Sylvie's cheek was like a "fruit," which the "someone" had, 'after' biting it, realized that it was not yet 'ripe' for biting. Lucy sees the mark as an indicator of a premature valuation, the inverse of the time-lag value she experiences with *Daffodils*; something happened to Sylvie before she

was ready, and the time at which it did happen and the time at which it becomes important to her (if it ever does) do not match.

When Sylvie talks about her youth, she adopts a tone of voice which sounds "heavy and hard," and Lucy remembers, "I came to think that heavy and hard was the beginning of living, real living; and though I might not end up with a mark on my cheek, I had no doubt that I would end up with a mark somewhere" (Kincaid 1990, 25). Her childhood self proposes a future in which her life—the life that she is, ostensibly, living during the "present" of her narrative's *fabula*—will become real. Not only does she mark a "beginning" for the future, however, but also an "end"—an understanding that, at the end of her life, she will "end up with a mark." However, the mark itself is more than its reality, indicating that a temporal disjoint separates Lucy and Sylvie from the kinds of aesthetic experiences available to someone like Mariah. What it signifies, as Lucy observes, is "much deeper than its reality."

The conditions for Lucy's life becoming "real" and "heavy and hard" are pain, emigration from her homeland, and, ultimately, adulthood. As she remembers Sylvie, she finds herself, for the first time, able to take a retrospective attitude on her past, reflecting, "I could now look back at the winter. It was my past, so to speak, my first real past—a past that was my own and over which I had the final word" (Kincaid 1990, 23). The temporal figurations here are intricate. She repeats her past experiences as memory, but her childhood self also repeats the future life she expects to live after meeting Sylvie. She remembers anticipation of a future event—at the same time, she looks forward to a time at which she can look back. This is reminiscent of the traditional narratological understanding of endings, and even the apocalyptic anticipation of the end of history, at which time a pattern of meaning in preceding historical processes will be discernible. The end of the story will allow the middle of the story to start making sense. Lucy envisions the ending of her life as being "mark[ed]" by pain, but also envisions her present as only intelligible in terms of her past. The aesthetic marks which Lucy is able to discern transform the present into something which exists exclusively as a difference between the past and the future; thus, it is a poetic category, but also a category of Kermode's "time-between," throwing the "end-feeling" into the present even as that present moment slips away. It converts her life's and narrative's ending, as Ricœur predicts, from being "imminent" to "immanent."

Lucy's understanding of endings comes as simultaneous contemplation of the past and the future, both drawn into the present. She repeats not only past actions but present and future ones, collapsing the distinction between the three while retaining the sense of a 'linear' narrative.

Narratology falls short of being able to fully theorize the complexity of Lucy's temporal experience. The traditional understanding (here exemplified by Ricœur) proposes that, for a plot to be successful, it must be composed of whole, complete actions arranged symmetrically in time: "An action is whole and complete if it has a beginning, a middle, and an end; that is, if the beginning introduces the middle, if the middle with its reversals and recognition scenes leads to the end, and if the end concludes the middle" (Ricœur 1985, 20). Brooks and Kermode, too, both emphasize the "reversals and recognition scenes" of the middle, but in near-opposite ways. Brooks argues that they make the ending inevitable by providing narrative deviations which the plot must correct into a linear beginning-end structure, while Kermode sets up the opposite causal relationship, arguing that "peripeteia depends on our confidence of the end; it is a disconfirmation followed by consonance" (Kermode 2000, 14). The mimetic relationship between life and narrative which Ricœur sees would imply that life, too, would have to follow either Kermode's or Brooks' interpretation of the middle. Real life events would either strive for ending consonance, as Kermode would insist (the apocalyptic myth "projects its neat, naïve patterns on to history" as it is prolonged further and further); or they would gain meaning only retrospectively, 'after' the end, at which point one cannot but see a chain of events as leading inevitably to its current state (Kermode 2000, 14).

This notion that the most important function literature can play is to be mimetic of 'real life' is pervasive but misguided. It elides the power of literature to create and end its own worlds, firstly, but secondly—and perhaps more importantly—it relegates the aesthetic to the level of 'style' (as opposed to the substance of *fabula*). If poetics—that process by which things such as worlds and identities are built—is taken seriously, the fullness of a text's relationship with time emerges. When we free literature from the responsibility of mimesis, a variety of apocalyptic opportunities emerges. Firstly, it becomes possible to read texts that are not themselves figurations of disasters or apocalypses, broadening the scope of the field. Secondly, and perhaps more importantly, the conditions of possibility under which a work emerges become part of the work itself. What it is possible to experience, on an aesthetic level, is—we learn from Glissant—historically constrained. This means that 'apocalypse' and endings look different for different texts, and the poetic conditions under which the world of a story can emerge are not universal. Therefore, it is not possible to study the apocalypse without first asking "apocalypse for whom?" Worlds end in uneven ways. The narratological approach to poetics, for example that of Tzvetan Todorov, who seeks "knowledge of the

general laws that preside over the birth of each work," misses both this locality and also the specific textual qualities that produce stories' endings (Todorov 1981, 6). The endings of novels are mimetic neither of human deaths nor the end of "the" world: they are invitations to investigate the ways textual artifacts can redistribute or change the terms of what it is possible to imagine.

To better illustrate the connection between novel endings and apocalypse, I turn towards the end of the novel, wherein Lucy begins to contemplate death and temporality as occurring in the context of writing. The end of her life and the end of the novel are not the same thing; indeed, the difference between them is so important that it structures, basically, the entire text. Where the end of Lucy's life is an event in her future that she will not be able to experience, the end of *Lucy* the novel appears as an explicitly textual and aesthetic object. The writing of letters becomes extremely important here, with the communicative disconnect between Lucy and her mother taking textual form. She receives the letters by reversing the temporal demands they make on her: "One day a letter arrived for me, and written all over the envelope in my mother's beautiful handwriting was the word urgent. To me the letter might as well have written all over it the words 'Do not open until doomsday'" (Kincaid 1990, 115). Her animus towards her mother appears in the form of a temporal disconnect. Letters already take time to travel across oceans; what was "urgent" at the time Lucy's mother wrote the letter might already have passed the brink at which Lucy knowing it would matter. Lucy's charming invocation of the apocalyptic is worth noting: by "until doomsday," she means "never." So there are three layers of temporality at work, here: "One day," "urgent," and "until doomsday." Neither of these registers are connected with one another, because none of them are operating in the same place. "One day" is in the US; "urgent" in Antigua; and "until doomsday" nowhere, never.

Lucy's struggle to break free from the hold her mother has on her helps contextualize and situate the disconnect between these temporal registers. Her relationship with her mother is complicated, to say the least, and when she tries to explain it to Mariah, the well-educated American gives her a copy of Simone de Beauvoir's *The Second Sex.* The book does nothing for her. Lucy insists on the singularity of her experience: "my mother was my mother and [...] society and history and culture and other women in general were something else altogether" (Kincaid 1990, 131–32). What she learns from this encounter is that "for ten of my twenty years, half of my life, I had been mourning the end of a love affair, perhaps the only true love in my whole life I would ever know" (Kincaid 1990, 132).

This scene clarifies two things. First, that Lucy's experience cannot be universalized; it is only legible in the context of her specific experiences and relationships. Second, that the "end" of her most important relationship—indeed, the relationship that structures her life and sense of intimacy with others—has already occurred, long before the novel began. Obsessed with compartmentalizing her life into periods and sections, Lucy's splitting of her life in half orients it towards that always looming but never arriving "doomsday," the gravitational center of her mother around which her life revolves. The poetic conditions under which love and relationships become possible have already been foreclosed upon. And so, the novel proceeds from after the end.

Lucy's turn towards textuality and writing maintains this sense of having occurred after the end. Note how the words and phrases that establish timing and pace clamor in this passage:

> I had not been opening the letters my mother had been sending to me for months. In them she tried to give me a blow-by-blow description of how quickly the quality of her life had deteriorated since I had left her, but I only knew this afterward—after I had learned of my father's death, written to her and sent her money, and then opened the letter she sent in reply. For if I had seen those letters sooner, one way or another I would have died. I would have died if I did nothing; I would have died if I did something. (Kincaid 1990, 139)

Lucy is a deeply reflective text. The novel's narrator, Lucy, spills a great deal of ink trying to parse out her relationship to time; but this passage in particular brims with temporal disconnects. Her mother's attempts to give her a "blow-by-blow" (real-time) account of her life is thwarted by her daughter's unwillingness to participate in the informational exchange of writing "for months." Lucy only learns that she'd been trying to do this "afterward—after" she'd learned her father died. Then she writes (giving a false address, thereby cutting off contact forever), "and then" opens the letters. Information is introduced out of order, both to Lucy (in the *fabula*) and in the form of the sentences, because Lucy and her mother are no longer operating in the same worlds. Each world has its own temporal register, its own aesthetic, and so is cut off from what is common (i.e. the world of Mariah, in which de Beauvoir can explain the relationship between Lucy and her mother). What has ended is the world in which the information in the letters is relevant: the relationship ("love affair") between the two women. As the repetition in the end of the passage indicates, the meeting of those worlds would have meant death.

Temporality, urgency, and death: all of these thematic resonances gesture towards the apocalyptic, but the aspect of local apocalypse I want to draw out emerges in Lucy's reaction to the news of her father's death. First, she realizes how committed she had been to a vision of her present life continuing on without change: "I had never imagined my parents dying. When I told Mariah this, she said that no one ever thinks their parents will die, ever, and I had to suppress the annoyance I felt at her for once again telling me about everybody when I told her something about myself" (Kincaid 1990, 139). After insisting on the non-universalizability of her experience, she imagines the end of her life as being grounded, physically, in her past:

> I noticed how hard and cold and shut up the ground was. I noticed this because I used to wish it would just open up and take me in, I felt so bad. If I dropped dead from despair as I was crossing the street, I would just have to lie there in the cold. The ground would refuse me. To die in the cold was more than I could bear. I wanted to die in a hot place. The only hot place I knew was my home. I could not go home, and so I could not die yet. (Kincaid 1990, 140–41)

At this point in the narrative, Lucy has passed through the endings of many things. The end of her childhood, firstly, is the object of much introspection, but she has also learned that her father has died; so his life is over, and so is the threat that she might break the promise she had made to herself never to see him again. Her relationship with Mariah, her employer, has disintegrated, and her friendship with her roommate Peggy is nearing its closure. She projects these endings into the future to imagine her own death. Although she has relentlessly been trying to escape Antigua and the colonial constraints it has placed on her, she still sees her life as captured and bookended by it. And not just Antigua as a political, historical, or social phenomenon: Antigua as a hot place, the only hot place she knows. She cannot die "yet" due to the nature of the US as a cold place, and also because she cannot return "home." She draws her past into her future to explain the conditions for her own demise. She does not have the imaginative tools available to think of a different hot place in which to die; again, the only worlds available to her for her future are from her past. This is a constraint placed on her as a result of her colonized history—a history which marks her as *being from somewhere*, barring her from accessing a free, universal sense of place. Her desire that the ground "just open up and take [her] in" reflects the connection of time (the future) to place (the ground). The ground is "cold and shut up;" she can't access a sense

of belonging to it, and it would "refuse" even her dead body. Since she feels alienated in this place, the death she imagines for herself would close the aesthetic loop of her past. Her future is her past; her life ended the moment she set foot on US soil (which is, not coincidentally, the moment the novel begins).

If narrative is a metaphor for life, just as the ground is a metaphor for place, then the entirety of *Lucy*'s *fabula* takes place in what can only be considered a postapocalyptic landscape. The novel is what emerges from the futurelessness that colonialism has left for her. This is, of course, not to say that the novel lacks meaning or temporality, far from it. The novel is simply uninterested in traditional narrative notions of progress, closure, or 'terminal quiescence.' Where a narratological perspective might work to untangle the order of events in the story, my approach attends to the textual features (the poetics) that bear traces of colonialism as a world-ending practice. In this text, the future is not guaranteed, nor is it universally legible. Where Mariah's future without her cheating husband beckons, crowded with possibilities, Lucy's future has already been made for her; with predetermined aesthetic experiences (like the daffodils) and a sense that something very important has already come to an end. The apocalypse is local — 'was' local — and it would be impossible to understand without privileging that locality.

Where the writing of letters creates the conditions for understanding the past, the novel ends with a gesture at an unknowable textual future as Lucy writes in a journal Mariah has given her. Throughout the story, Lucy has grappled with her "desire to imagine [her] own future" (Kincaid 1990, 91). Through writing, she has the power to create textual representations of herself, reflect on her ambitions, or work through her feelings about her past. But the novel ends with these sentences:

> I wrote my full name: Lucy Josephine Potter. At the sight of it, many thoughts rushed through me, but I could write down only this: "I wish I could love someone so much that I would die from it." And then as I looked at this sentence a great wave of shame came over me and I wept and wept so much that the tears fell on the page and caused all the words to become one great big blur. (Kincaid 1990, 163–64)

"Blur" is an extremely evocative final word for a text, especially a text of first-person narration. It's almost a genre convention for a semi-autobiographical bildungsroman to end with its main character discovering her proclivities as a writer, beginning to narrativize her own experience through the practice of self-writing. However, what we get isn't quite a

narrative: it's a desire about love and death. Knowing that she considers her relationship with her mother the "only true love" she might ever experience, this is a desire about letting go of the past and embracing some kind of new, future relationship that would spell her demise. For her, love and death, and the intensity of both, are the same. The desire is, in its anticipation of an end to come, apocalyptic; it is also apocalyptic in its foreclosure. "I wish I could," writes Lucy implying that, currently, she cannot. This future is not yet available to her—she cannot narrativize, cannot predict—and so is left in a state of apocalyptic futurelessness.

The sense of the apocalyptic working through this passage also appears in the textual persistence of the narrative after its *fabula* ends. Instead of seeing the end of the text as the end of *Lucy*'s diegetic world, this passage figures the end as an opening into a new mode of textual being (new writing in a blank journal). Lucy opens a new "world" under the header of her name, with the blankness of the journal gesturing at an unknown openness. Her ending is, as in the passage about the ground, a wish for a particular kind of ending which has not yet arrived because the aesthetics for it have not yet become available. The narrative time-between continues, even when the novel's *fabula* does not.

Reading *Lucy*'s ending through an apocalyptic lens reframes the analogy most proper to narrative endings from life-endings to world-endings. As Kermode (2000) rightly argues, the apocalyptic mythos strongly structures our sense of time and space and that influence also colors the aesthetic emergence of literature as non-mimetic art. However, Hurley's criticism remains salient: that Kermode's theorization of the narrative apocalypse depends on "an imagined future that provides the outer limit of time such that we can see time whole" (Hurley 2020, 19). If we begin from the position of Munro (2015)—that, for a region such as the Caribbean, the apocalypse has already occurred—then the future can only be one of two things. First, it could be a continuation of the slavery, imperialism, ecological devastation, criminality, and war that have produced the conditions for the present. This would be the case for a universalizable understanding of narrative wherein all aesthetics are assumed to be equally accessible to everyone from anywhere i.e. the continuation of the present towards an imaginary future perspective from which we can look back and "see time whole."

Second, though, it could be something else. Understanding the local apocalypse helps us understand that time, history, and world are intertwined in narrative endings, and the aesthetic work which those endings do is not so narrow as to indicate closure or consonance. For Lucy, futurelessness—the blankness of the journal and her inability to under-

stand what futures could await her—do not trap her into replicating the same harmful patterns that have left her here. The only futurity she's ever known is that of imperialism; her refusal to participate in that imaginative project might, as Hurley suggests, be a decolonial possibility.

This last point might feel like a bit of a stretch, but allowing the future to become murky and directed towards a discontinuity with the present might be the only way forward. Reading Glissant, Gary Wilder suggests that "nonhistory, tormented chronology, a painful sense of time, and a prophetic vision of the past [...] could be transformed into a critical capacity" insofar as they "[produce] opacities that cannot be seized and clarified" (Wilder 194 and 201). Discontinuity, opacity, and disruption mark the 'end' of one kind of history; that is, the "tormented chronology" of the colonial project. As far as narratology goes, apocalypse is the best way to introduce this discontinuity. Rather than seeing a narrative as an inevitable progression towards a predetermined end, apocalyptic poetics pays attention to non-teleological textual practices that probe the relationships between time and space. Indeed, the deeper reading begins with the idea that the end of a novel's *fabula* does not mark its only, nor its most important, end. As a growing field, apocalypse studies must be attentive to the specificity, locality, and constructed nature of the narratives it studies. Each "ending" invoked might be the start of a new post-apocalyptic literary landscape. Indeed, in *Lucy*, the most important endings—the colonization of Antigua, the end of Lucy's "love affair" with her mother, and her departure from her homeland—occur long before the novel begins. *Lucy*'s first line shows how it begins 'after' all this, after the endings, at what appears to be the brink of a new story: "It was my first day" (Kincaid 1990, 3).

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Inês Vieira Rodrigues

From Techno-Hope to Vertigo-Trip: an Airpocalypse seen from an Island

Abstract: One of the smallest islands of the Azorean archipelago, Santa Maria, located in the middle of the Atlantic Ocean, has been particularly noticed following the relatively recent news of the construction of a European Space Agency facility with the capacity to launch minisatellites from 2023 onwards. In this context, to imagine that 'we can be astronauts' launching from Santa Maria's spaceport directs to the main purpose of this article: to engage with infrastructural space exploration materiality as an object of concern; through the lens of the techno-hope concept, here conceived as a successful apparatus behind the desire for a Spaceship Island. To reflect on Santa Maria as an example of a 'shortened vision,' what the overview suggests is that the political-technical imaginary envisaged for the island disguises the absence of a project for the actual inhabiting realm, thus, for life in the 'terrestrial' reality. Therefore, this article aspires to be an invitation for 'being-in.' In this direction, an apocalyptic scenario or, as an alternative, a vertigo-trip possibility, might come in the aftermath of the achievement of the techno-hope political tool. Essentially, the techno-hope apparatus might emerge as an eventual revelation, evidencing the loss of terrestrial coordinates, or rather, an utter detachment from the ground. In other words, this is an incitement to think beyond the end of the world seen from an island.

Keywords: Techno-hope, spaceport, island, vertigo-trip, airpocalypse.

Introduction: Escaping the Monstrous

[I]n the face of the globalization wars and technological departures that lent the twentieth century its character, being-in means this: inhabiting the monstrous. Kant taught that the question humans ask to assure

themselves of their place on the world should be: 'What can we hope for?' After the un-groundings of the twentieth century, we know that the question should rather be: 'Where are we when we are in the monstrous?' (Sloterdijk 2011, 630)

More than fifty years ago, the Earthrise photograph and its subsequent multiplications seemed to substantiate 'the whole' as a political category. The totality of the planet captured in a picture sustained an 'external' perspective to such an extent that the ones who live now "are forced to project their hometown as a point perceived from the outside" (Sloterdijk 2008, 38). The intense space exploration carried out during the latter half of the twentieth century appears to have made a robust return over the last years, in a context within which the views from the outside seem to drive 'our' imagination. This reverie, however, might be a contradiction to what happens on the ground, thus, inside. As Peter Sloterdijk (2011) questions, where are we when we are inside? The concrete horror and the actual materialities presuppose a different point of view: being-in means therefore being in the muddy realities of life on the ground. In other words, by analyzing a concrete, contemporary example, what the following argumentation suggests is that this sublime overview 'loses sight' of the terrestrial actuality.

Santa Maria Island, located in the middle of the Atlantic Ocean, has been particularly noticed following the relatively recent news of the construction of a European Space Agency facility with the capacity to launch minisatellites from 2023 onwards. In geographical terms, this island is doubly remote: in relation to the Portuguese mainland, and within the archipelago itself. Remoteness, as Owe Ronström (2021, 272) argues, is "a part of the logic that organizes the world in terms of power and control." In this sense, the island's remoteness is presented as beneficial for the current political vision attributed to it: it is remote, therefore suited for a spaceport. To reflect on Santa Maria as an example of a 'shortened vision,' this article argues that the political-technical imaginary envisaged for the island disguises the absence of a project for the actual inhabiting realm, thus, for life in the monstrosity.

The purpose is to engage with infrastructural space exploration materiality as an object of concern, through the lens of the techno-hope concept: here conceived as a successful apparatus behind the desire for a Spaceship Island, which will be developed later in this text. The space-aspiration for the southernmost island of the Azorean archipelago reveals "the contingency-generating, boundary-dissolving, yet often imperceptible ways in which human-technical systems continually reorder

existence and are in turn reordered" (Allenby and Sarewitz 2011, 159). In this direction, Santa Maria is envisaged as the next Spaceship Island. Within this foresight, one of the goals is to "increase the visibility of the Region as an Atlantic platform for space-related activities" (Regional Government of the Azores 2022, 6). For the necessary disruption with its insular limits, Santa Maria seems to be conceived as a potential full "technoscape," drawing upon an Arjun Appadurai's (1996, 34) formulation, in which "[technology] moves at high speeds across various kinds of previously impervious boundaries."

Along this line of reasoning, and as this article intends to further develop, an apocalyptic scenario or, as an alternative, a vertigo-trip eventuality, might come in the aftermath of the achievement of the techno-hope political tool. In this direction, it seems useful to bring in Rania Ghosn and El Hadi Jazairy's (2014) concept, "airpocalypse," in involving the loss of terrestrial coordinates, or an utter detachment from the ground.

In this context, the eagerness to evade the monstrous rises through its intertwinement with the hopeful pledge that 'we can be astronauts' departing from Santa Maria Island.[1] Let us consider a particular moment during a conference held online, on the 21st of April 2021, when Ricardo Conde, the current President of the Portugal Space, was questioned by a member of the audience about the impacts of the space infrastructures in the Azores:[2] part of the answer was "our main objective is to look as a whole," "the Azores is a key-point of interest"[3] (Climate Science from Space Conference 2021). Despite having the Azorean flag displayed at the back of the room, the answer was directed into a pure global issue, manifesting, it is argued here, the techno-hope within a (geo)political frame: through the emphasis of the 'interconnectedness of everything,' the holistic perspective as the goal, since "we are addressing what we call a Digital Planet" (Climate Science from Space Conference 2021). Indeed, when we look at the whole, we forget the parts, and the techno-hopeful narrative arguably produces definitive technological and technocratic solutions, subject to be applicable anywhere. To put it differently, looking at the whole might be an attempt to escape being-in, or to escape the monstrous.

Archipelagic Geographies of Hope

As Slavoj Žižek aptly put it, myths and illusions are the innermost constituent of society, thus mystifications are part of the State's structure

1 Even if the expression 'we can be astronauts' was not specifically pronounced during *The Strategy of the Azores for Space* conference, this article considers that it resumes the incitement underlined throughout the speakers' interventions.
2 The question was: "how do you see the contribution of the Portuguese infrastructures being created in our Azores islands to mitigate the impact on climate change and environmental disruptions?" (Climate Science from Space Conference 2021).
3 The other part of the answer was: "we cannot look only to infrastructures that are creating an impact, this is an overall synergies and critical mass of knowledges, infrastructures, to act all together on that" (Climate Science from Space Conference 2021).

(Backdoor Broadcasting Company 2015). In this light, "islands form a paradigmatic battleground between scientific method and mythological narrative" (Samuel 2016, 92), and, for the purpose of this chapter, the Azorean islands are considered a contemporary example of such disputes. Indeed, "in the archipelagic system, each island presents the opportunity to dream about the next one" (MAP Office 2016, 65), and the 'island allure' (Grydehøj 2017, 10) is now aimed at Santa Maria.

The 'geographies of hope' (Anderson 2006) require territories of mediation, and this article considers that the islands perfectly fill those imaginaries of conciliation: between land, sea, and space. The confluence of terrestrial, maritime, and aerial condensed in those portions of 'identifiable' land — in fact, one can point to them on a map, even if "islands 'are the rule and not the exception'" (Daou and Pérez-Ramos 2016, 7) — conducts to "the idea that islands are things that we can point to *in* preformatted space" as "an artifact of our anthropocentrically scaled worlds and projects relating to islands. We want to land on them" (Morton 2016, 75). Moreover, the Azorean archipelago has been subject to contemporary multi-layered negotiations, insofar as its geographies and materialities give rise to new ambitious forms of territorial control: the bordering operation is, thus, extending from the terrestrial and maritime domains to the outer space realm.[4] Accordingly, the archipelago composed of nine islands is, today, profoundly 'wet' and 'moist,' considering the current sites of dispute or 'gray zones,' as formulated by Alison Mountz (2013, 830), which are the current ambitioned configurations for the production and operation of geopolitical power.

In this sense, the archipelagic geographies of hope deal with "the political geography of non-terrestrial spaces and territories that are increasingly important as resource prospecting moves further offshore, poleward, and even off-planet" (Stratford 2018, 15), and under which the Regional Government of the Azores characterize the required technological operations as unproblematic, or rather favorable: "[the installation of a spaceport] is intended to attract relevant industry actors in this sector, with positive impacts for the regional economy" (Regional Government of the Azores 2022, 14). In the aftermath of the current planetary acknowledgment of climate change, an 'elite' — meaning individuals or organizations that can influence and can take part in major political decisions — orientates its objectives and investments far-flung from the doomed Earth. Contemplating the Blue Marble from above is already turning into an experience available to the wealthy, and that experience should not be shared with 'others,' the ones who are condemned to stay on the ground,

[4] See "the need to 'search for new opportunities in the Atlantic'" manifested in the scope of the international conference titled *All-Atlantic 2021* (Lusa 2021a).

as the ambition for "the possibility of framing [the spaceport] in activities the so-called 'space tourism'" (Regional Government of the Azores 2022, 14) seems to reveal.

Nevertheless, as a shared imaginary, the archipelagic geographies of hope 'save us' from a perpetual 'being-in' scenario, insofar as they enable the evasion from our condemned terrestrial 'reality.' Let us observe fig. 1: even if "Bernal's cosmic spheres were not hermetically sealed, and his interest in the future was not limited to closed, totalistic scenarios either" (Scharmen 2021, 44), these where "giant spheres that could reproduce themselves, filling the space in the Solar System with environments in which humans could live comfortably" (Scharmen 2021, 43); in that sense, it also might represent an evasion from earthly conditions.
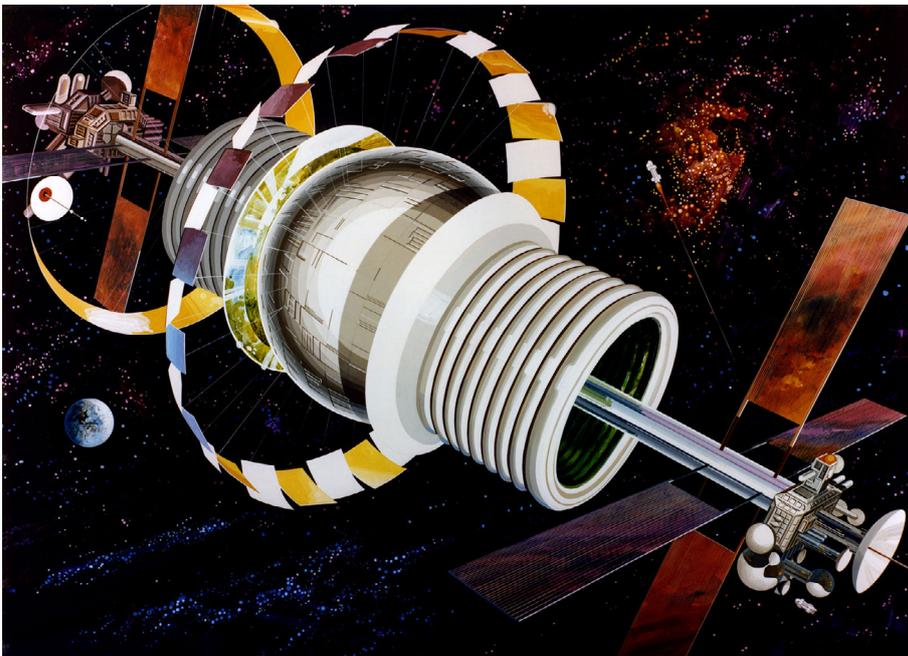

Figure 1. Rick Guidice, *External View of a Bernal Sphere,* (1979) (credit: NASA. Public domain in the United States)

The promise of transcendence out of this planet starts in said locations, where the Earth can be accessed from above, engaging with it within a contemplative dimension; and the spaceport in Santa Maria Island seems to be among the next moves of the relentless demonstration of progress.

Santa Maria, a Spaceship Island

Over the past decade, several technological projects have been installed on Santa Maria Island, such as the Atlantic Network of Geodynamic and Space Stations (RAEGE). At the beginning of 2019, the Portuguese Government approved the creation of the Portuguese Space Agency, headquartered on the Azorean Island. The first launches of small satellites were expected to happen in the middle of 2021, however the two consortiums competing for the construction of the spaceport were excluded. Given this scenario, "the industry is ready, but the lack of a spaceport holds back growth" (*Jornal Económico Especial* 2021). The spaceport is, thus, referred to as inevitable for progress. Subsequently, the Regional Government of the Azores proceeded on reviewing the conditions for the construction and exploration of the infrastructure, also considering the contextualization of the space mission program in the recent Recovery and Resilience Plan for Portugal (Morais 2021). Despite these recent impasses, the small island has been referred to as "a hub," and "a technological axis" (Regional Government of the Azores 2021). Not long ago, in April 2022, a new tender for the construction of the spaceport was launched (Lusa 2022a), following the work on the adaptation of "the documents under the terms and in accordance with the recommendations issued by the court, after hearing various consultants and with the support of an external legal office" (Regional Secretary for Culture, Science and Digital Transition 2022). This news proceeds a series of juridic disputes among the Regional Government of the Azores and the Government of the Portuguese Republic, manifested by the former Minister of Science, Technology and Higher Education, Manuel Heitor, who went even further saying that there was "incompetence" on the part of the Regional Government of the Azores to move forward with the space port of Santa Maria (Lusa 2021b). More recently, however, the Regional Government stated that the purpose of the spaceport is "to be effectively an asset to the island of Santa Maria in particular, and to the Azores in general, taking into consideration all factors, including technical, environmental, and economic, among others. We are not prisoners of anyone's agendas"[5] (Regional Secretary for Culture, Science and Digital Transition 2022). Here it is then, the muddiness of life on the ground, the concreteness of reality once the sublime overview starts to turn into tangible matters. The monstrous, in a Sloterdijkian sense, starts to be exposed through these tensions, when the techno-hope apparatus loses consistency and evolves into a precipitous premonition.

[5] Meaning that the Regional Government is not subjugated to the Portuguese Government in this specific domain.

The technological-hopeful operation comprises the construction of infrastructure, which is the 'ground' for planetary geopolitics and within which governance issues frequently overlap the materiality subject and its related effects. However, as Julie Michelle Klinger (2019a, 11) claims, "on Earth, the environmental geopolitics of outer space are inseparable from questions of environmental justice." The Santa Maria Island's remoteness is essential for the installation of infrastructures unavoidably characterized as necessarily securitized, possibly dangerous, and likely to produce environmental material consequences (Klinger 2019a). Indeed, as Ronström (2021, 285) claims, "remoteness is a fragile and volatile quality."

This case can perhaps be inscribed within a "logic of the contemporary space race — a race that fundamentally entails the transformation of nascent spaces into environmental sacrifice zones" (Desai 2019, 42). In effect, the spaceport is not an abstract 'point' within a network of connections, but, rather, such infrastructure encompasses "material and political sediment dynamics" (Sanjuán 2019, 126). The island's technical infrastructure extends beyond the 'borderless' domain of space exploration, upon which the new territorial claim of ownership is being built. The pursuit of spatial control stresses political-technological solutions, and the technologies comprised in this operation are powerful enough to re-mediate the territorial condition. In this light, the technologies of the visible converge to this earthly infrastructure, as an imaginary Spaceship Island; which appears as extensible, promising, and sufficiently secluded to engender the most technological and hopeful scenarios.

Furthermore, even if "[we] are all astronauts," as Buckminster Fuller (1969, 56) affirmed, it seems that the desire to reach outer space domains avoids undertaking the return path: the operation which involves rising above our terrestrial level is far more attractive if it is stopped once it reaches orbital domains. In other words, it seems to be far less appealing to think about 'the way back to the ground;' and for this activity to be accomplished in such 'incomplete' terms, the present reasoning understands that the techno-hope instrument is paramount in the maintenance of collective imaginaries — or rather, concerns — at higher altitudes. In essence, between the space exploration ambition and the island as 'the' platform, the heavy and 'real' infrastructure seems overlooked. Therefore, considering that "the distinction between infrastructure and sociality is fluid and pragmatic rather than definitive" (Simone, n.d.), its entanglements deserve further analysis. Fundamentally, for the techno-hope mechanism to achieve its purpose, 'one pretends to not see it;' the technical structure is removed from the center as a matter of concern, and the hypothetical scenarios gain prominence, instead. The success of this

oblivion, as conceptualized here, is attributed to the techno-hope apparatus.

Techno-hope, a Performative Apparatus

In 1966, Cedric Price asked "[t]echnology is the answer, but what was the question?" Framing Price's provocation in this case, techno-hope is conceived as a political tool that succeeds precisely on this oblivion of what motivated the use of technology in the first place. Even if "nothing is more human than technology" (Colomina and Wigley 2018, 132), technological perseverance alone could not guarantee consciousness about the operations to be carried out. There is, it seems, a hopeful discursive structure behind it, thus constituting the techno-hope instrument, where "the mighty realm of *possibility*" (Bloch 1954, 202) is played out.

The 'techno-hope' expression is inspired from the 'techno-optimism' term, as Julie Michelle Klinger explores (2019b, 34); however, it differs in its meaning: it is intended to be more determinant in the prospect of an actual change. In this light, it seems necessary to draw upon Ben Anderson's (2006, 747) reasoning, which defends that "becoming hopeful is therefore different from becoming optimistic. It involves a more attuned ability to affect and be affected by a processual world because it is called forth from the disruptions that coax space-times of change into being within that world." In the same way as Klinger (2019a) proposed, the suggestion is to disassemble the hopeful dimension to disclose the potential conflicts, therefore, "attuning how hope takes place" (Anderson 2006, 748).

On the 11th and 12th of November 2021, the Government of the Autonomous Region of the Azores publicly announced *The Strategy of the Azores for Space*, that ran online. In the opening speech, the former Regional Secretary for Culture, Science and Digital Transition, Susete Amaro, asserted that the space strategy "will seek for new ways to develop and to create value," and added: "one thing we are sure of, technology will continue on its evolutionary path" (Regional Government of the Azores 2021). This first intervention, as others did, referred to the 'Portuguese maritime discoveries' in a laudatory manner to point out that "Portugal is a country of dreamers, who aspire to reach further," and that "space is in our aspiration" (Regional Government of the Azores 2021). In this regard, the event seemed guided by a praising discourse when recalling the circumstances of more than five hundred years ago, allowing a historical revisionism of colonialism as glorious considering space aspirations. In other words, the uncritical acceptance of the past, or rather, its enhancement, render the

current aspirations for the island automatically acceptable. Such valida-tion leans on this tautological speech, in which there is an implicit double invitation: to forget all the actions and repercussions, and to focus on the promise for eagerness.

In the same line of hopeful narrative, consider a text by Filipe Alves, the Director of the *Jornal Económico* newspaper, who stated that "the Discoveries of the 21st century take place in space and Portugal has all the conditions to take part in this race" (*Jornal Económico Especial* 2021). This statement integrated a special publication dedicated to the aerospace industry, whose cover highlighted the subtitle "Future commissioned to Santa Maria" (*Jornal Económico Especial* 2021). Effectively, it seems that the techno-hope is revealed in this not-yet eventuality, and according to Erich Fromm's (1968, chap. 2) thesis, "there is no sense in hoping for that which already exists or for that which cannot be;" which means that "if there is a real possibility, there can be hope" (Fromm 1968, chap. 7); see fig. 2, in which Copernicus is depicted around his work instruments, while looking above, seemingly in a vulnerable position: one might add that it probably represents the moment when he confronted his faith with his renowned and, at that time, revolutionary Heliocentric Theory. In this sense, hope appears strongly present in Matejko's painting since it sug-gests a there-is-a-real-possibility instant.

Figure 2. Jan Matejko*, Astronomer Copernicus, or Conversations with God*, (1872) (credit: Wiki-media Commons, Public Domain)

Returning to *The Strategy of the Azores for Space* conference, the commonality or shared hope was tenacious, as this statement attests: "Portugal Space wants to reduce the spaces between us, for the benefit of all," since the goal is to "make the space our space, in a shared dream" (Regional Government of the Azores 2021). Terms such as dream, future, challenges, development, technology, ambition, evolution, progress, and space democratization, were definitely recurrent terms, as well as evidence for the fostering of a concerted hope. In addition, one dimension inherent to 'hope' is the one of 'faith,' and in accordance with Fromm's (1968, chap. 3) assertion "hope can have no base except in faith," and both "are by their very nature moving in the direction of transcending the status quo, individually and socially" (Fromm 1968, chap. 4). A demonstration of this element of faith was performed by the former Regional Secretary for the Sea, Science and Technology of the Azores Regional Governement, Gui Menezes, when stating that: "we believe that the future of our Region is also in Space" (Portugal Space 2030 2018, 12). Moreover, and paradoxically, if hope might exceed the status quo — in the sense of relocating the individual and, above all, the collective imaginary from the current situation — it also enables the preservation of the status quo, namely the one referring to some political institutions and individuals. When both Governments of the Portuguese Republic and the Region of the Azores engage in such events, they direct the attention towards the future, which can also serve to draw attention away from the present, from 'being-in' in its actuality. Therefore, given that "hope is a decisive element in any attempt to bring about social change in the direction of greater aliveness, awareness, and reason" (Fromm 1968, chap. 1), the techno-hope vocabulary cultivates hopefulness.

Concomitantly, the expression 'climate change' was a persistent one throughout *The Strategy of the Azores for Space,* which was seemingly unavoidable as the 26th UN Climate Change Conference of the Parties (COP26) occurred at the same time in Glasgow. Additionally, the 'space debris' issue was periodically emphasized as foreseen, since spatial debris is an issue of genuine concern; considering that "within the sea areas, over a hundred million pieces of debris circulate, ranging from the size of a grain of sand to decommissioned satellites" (Klinger 2019a, 19). Even if the orbital congestion and potential territorial consequences are acknowledged today, the countries involved in this contemporary race do not want to 'miss the opportunity,' or instead, not 'take action' quickly enough. An example of the urgency to act might be found in a recent interview, where Conde declared that the Santa Maria spaceport "must happen next year," and added, "I see no other possibility" (Neves 2022). It is

disappointing that the interviewer did not question the nature behind the assertiveness of Conde's statements, however, I would suggest, here, to cross-examine it with another declaration, that the "ideal moment to position Santa Maria as a privileged place" (Rodrigues 2022) has arrived: the latter was voiced by Bárbara Chaves, the Mayor of Vila do Porto in Santa Maria Island, some months ago. Chaves requested "that all possible contacts be made with the Portuguese State and the European Union," given that there is presently "another window of opportunity," which consists in "a new legislative package, presented by the European Commission, which aims to reinforce the European Union's satellite connectivity system and, at the same time, reinforce Europe's action with regard to the management of space traffic" (Rodrigues 2022). As of 13th of December 2022, "the Government of the Azores ensures that [the] spaceport in Santa Maria will advance in 2023" (Lusa 2022b). The urgency to take advantage of the present context seems evident, and for Miguel Gonçalves, national coordinator of the Planetary Society, "whoever wins the race, wins everyone's attention, and gets to build a space station" (*Jornal Económico Especial* 2021).

Nevertheless, in the rush to make it into the contest, the 'real' impacts concerning the satellite launch operations, just as all the infrastructural apparatus to carry out those strategies, were not a focal point during the conference held over a year ago. Luís Santos, the former Coordinator of the Azores Space Mission Structure, brought up the theme in an abbreviated way, saying that "the implementation plan will have an environmental strategy" (Regional Government of the Azores 2021). Indeed, the *Azores Strategy for Space* (*ASS*) document asserts, in an abstract manner, the importance of "[s]afeguarding land and sea areas of the Azores and their environment" (Regional Government of the Azores 2022, 9).

These strategies developed by the Regional Government, along with the Portuguese State, and several institutions and corporations, demonstrate "how to be political affectively" (Anderson 2006, 748) and, in this sense, 'hope' intertwined with 'technology' withdraws the ideology behind it. Simultaneously, in a paradoxical way, it is filled with ideology, in the sense that the techno-hope apparatus seems to correspond to what Žižek (1994, 15) defined as an ideological phenomenon: "the elusive network of implicit, quasi-'spontaneous' presuppositions and attitudes that form an irreducible moment of the reproduction of 'non-ideological'" practices. In this light, techno-hope seems discernible and profoundly performative in the latest discourses and events: a kind of continuous jubilation, indestructible; it does not rest on a particular individual, it is instead a collective cultivated 'hope,' wherein the collective is determining "what can be

hoped for" (Anderson 2006, 746). Nonetheless, this cultivation is being done within and for a particular sphere: the governmental, institutional, and entrepreneurial one. The promises carried out by this specific type of 'hope' are contingent on the results of the materiality itself: jobs, better life, tourism etc. According to the techno-hope mechanism of discourse, the beyond disrupts actuality, and progress is "transcending without transcendence" (Bloch 1954, 210).

The techno-hope instrument forces the recognition of "technical landscapes of control," an expression transferred from Anssi Paasi's (2009, 226) theory: that these landscapes are gradually realized as distant from the territory *itself*. To put it simply, even if 'hope' alone seems to call for emotive sensations, its association with technological events is nothing but pragmatic. To succeed, the techno-hope instrument seeks for environments other than land; in this case, the extraterrestrial realm. Within the discourse which aspires for an "electronic atmosphere" (Sloterdijk 2008, 21), in which "the field of extended urbanization is pushed upwards into the earth's atmosphere through a thickening web of orbiting satellites and space junk" (Brenner 2014, 198), the infrastructures for such an endeavor are often disregarded. The physicality, materiality, weight, and volume needed to conduct the satellite launch fades away. The 'hope' surpasses the infrastructure 'reality,' insofar as the latter becomes immaterial. Suddenly, it becomes irrelevant, and it is precisely this entire virtualization of the operation that reveals the accomplishment of techno-hope as a political tool.

Furthermore, in the space exploration field, technological production sustains the drive for power and technologies seem to automate, to some extent, the act of decision. It appears that we are going towards a 'ubiquity of solutions' wherein the answers can be scaled-up, or borrowing Paul Virilio's (2013, 7) theory, "a kind of *résumé du monde* obtained by ubiquity." The techno-hope instrument is therefore a pivotal tool in this specialization amplified under the supreme authority of 'development.'

In addition, and returning to Price's provocation, it may be convenient to introduce one of Braden Allenby and Daniel Sarewitz's (2011, v) convictions: "technology is neither the answer nor the question, it's just the condition;" see fig. 3, where *The March of Intellect* depicted the future, with irony and exacerbation, loaded with technology as *the* answer.

In this operation dominated by a technological inscribed hope, state, region, government, companies, corporations, and institutions are implicated on a territorial arrangement, attested by the assertion that: "*The Strategy of the Azores for Space* will unite the nine islands, in a common exercise of improvement of our territory, our knowledge and of our

Figure 3. The March of Intellect, "Lord how this world improves as we grow older," William Heath, (1828) (credit: Wikimedia Commons, image licensed under the Creative Commons Attribution 4.0 International)

capacities towards a new development for the Azores" (Regional Government of the Azores 2021). Techno-hope entails an ambition for progress, and it has a territorial reflection on such improvement aspirations. As Neil Brenner and Stuart Elden (2009, 369) wrote, "the very concept of 'development' has come to be widely understood in territorial terms" and it is visible under contemporary capitalism. The essence of the hopeful operation might be resumed by drawing attention to what Isabelle Stengers stressed:

> we can also say that once it is a matter of what one calls 'development' or 'growth,' the injunction is above all to not pay attention. Growth is a matter of what presides over everything else, including—we are ordered to think—the possibility of compensating for all the damage that is its price. (Stengers 2015, 61)

It is suggested that the previous outline of some of the techno-hope manifestations—its discourses and policies—demonstrate, eventually, that this instrument's goal rests more on an Island Escape project than on a Spaceship Island.

The Island Escape, or the Vertical Standpoint

David Noble (1997, chap. 9) wrote: "what today we call space used to be known as heaven. From its earliest expressions, the enchantment of spaceflight was fundamentally tied to the other-worldly prospect of heavenly ascent." Within the same line of reasoning, "flight also resonated with the deepest impulses and symbols of religious and particularly Christian mythology—nothing less than Christ's ascension" (ibid). This divine dimension, the vertical one—or rather, *the* 'dimension of power,' using Michel Foucault's expression stressed out by Elden (2013, 36)—"gives a whole set of challenges about how you might think about a landscape and how you might construct power relations around those questions." Moreover, "while this vertical domain is conceived as a layering of spheres and flight paths, it is also a site of capital accumulation, filled with metallic hardware, synthetic materials, and toxic waste" (Parks 2013, 419–420). In recognition of the ambition for transcendence, "the nuances of our inescapably anthropocentric perspective must be appropriately critiqued," therefore "the ethical implications" must be addressed (Armstrong 2019, 149).

In fact, vertical geopolitics (Graham 2018) is in motion, and "actual operations of geopolitics" "are mediated through technological arrangements" (Klinger 2019a, 15). All the arrangements seem to be progress, movement, and hope. Under the techno-hope instrument, the dawn envisioned for the island emerges as a resurrection. This resurgence, transferring an expression elaborated by Fromm (1968, chap. 6), "is not the creation of *another reality* after the reality of *this* life, but the transformation of *this* reality in the direction of greater aliveness." Among the expected benefits to be achieved through the investment in the space sector, there is the "capture and retention of skilled labor[6] in the territory, with direct benefits for the Azorean economy, contributing to the establishment of skills and population in the archipelago" (Regional Government of the Azores 2022, 9). In this light, techno-hope emerges as a new means of escape from a 'fallen island.'

Furthermore, Conde wrote the following: "this is the one [life] I know, that I share with billions of other beings in a dependency in perfect balance, which, being fragile and already unbalanced, forces us to look outside ourselves, outside from here, as if this space we occupied was no longer enough, or because there's not that much hope here anymore" (Conde n.d.). In other words, if 'here,' in the terrestrial, hope is disappearing, one might actually 'find it' somewhere else: through techno-hope, these outside realms reconstitute the promise for a 'perfect balance.'

[6] This refers to jobs that require higher education degrees, namely aerospace engineering.

Nevertheless, as Marta Peirano puts it, "the fantasy of dropping this planet that we already wasted and jumping to Planet B—also make us very vulnerable to opportunistic enterprises" (Bauer and Janša 2022, 16). The base infrastructure is set to be located on an island, however the aspiration is to depart from there, to reach other environments. What is left on the ground is the material 'reality' of such infrastructure, the islanders, and the island itself.

Via this reasoning, the techno-hope apparatus as a political instrument generates distance from the territories upon which it performs. Within these politics of hope, the island rapidly loses its territorial importance and, as such, becomes instead 'a position': a 'mere' location to point to on a map during conversations about global strategies and politics. A stain to be seen from above, within a flat political discourse. The techno-hope instrument appears to have this ability to shrink materialities, humans, and non-humans to a useless dimension. If "becoming hopeful embody[s] a 'radical refusal to reckon possibilities'" (Marcel 1965, 86, as cited in Anderson 2006, 742), in this case, the technology associated with the embodiment of desire obscures its potential material impacts.

The aim for transcendence; the aim to reach higher levels within the gravity game, conceals what happens on the ground. If the spaceport is not formalized, the island itself risks 'the fall,' just like the rebel angels depicted in fig. 4; similarly, the island and islanders might be driven into a pandemonium state if the envisioned order is not followed.

In other words, the fascination with the 'figure' of the island does not allow enough space for a significant scrutiny of the technical scenarios to be conducted, which withdraws the importance of the island's geomorphology, to put it simply, the island *as such*. What is missing, this article argues, is precisely to analyze Santa Maria Island "in its own terms" (Baldacchino 2004; Dawson and Pugh 2021).

In *The Techno-human Condition*, Allenby and Sarewitz (2011, 10) remarked that "as Stewart Brand put it in his first *Whole Earth Catalog* (1968), 'We are as gods and might as well get good at it'." In the progression of their theory, they continued the reflection: "We are as gods? No, for we have created the power but not the mind" (2011, 11), until they achieved a sort of conclusion: "We are, it turns out, in neither God's nor Darwin's hands, but in our own" (2011: 19). Indeed, "machinery and transcendentalism 'agree well'" (Ralph Waldo Emerson as cited in Noble 1997, chap. 7). Consequently, divine grace seems to be replaced by technological operations, resulting in digital views towards the Earth. Thus, the vertical standpoint prevails over the island itself—it seems that, ultimately, what was intended through 'techno-hope' was an Island Escape.

Figure 4. *Très Riches Heures du duc de Berry*. Folio 64, verso: The Fall of the Rebel Angels, Limbourg brothers, c. 1411–1416 (credit: Wikimedia Commons, Public Domain)

Vertigo-trip, Towards an Airpocalypse

How can we respond to Sloterdijk's demand that we make air conditions explicit? Is it possible to see the future as dark, and darkening further, thus rejecting the false hope offered by positivist science and desperate economic fixes but without collapsing into despair? (Ghosn and Jazairy 2014, 146)

Let us imagine the aftermath of the techno-hope endeavor. Here *we are*, in a small island, in the middle of the ocean, where jobs were promised, an

economic improvement envisioned, tourism envisaged; as well as social benefits. But where did the extent of such promises go? What about the territorial and environmental unaccounted risks? In this pledge sequel, what are the labor dependencies? How to account for the non-human in this mesh of hope? Fundamentally, as Slavoj Žižek (2011) recurrently puts it, 'what about the morning after?'

This article attempts to argue that techno-hope is based on belief and technology. Basically, the belief that technology *will do it* is driven by the apocalyptic conviction that technology *must do it* to save us from oblivion. The prospect of the Spaceship Island is filled with ideas tempered by the perception of a technology that can save 'us.' The accomplishment of techno-hope premises a sort of 'zero point;' in the sense that it might give rise to an apocalyptic event. It does not have to appear as 'the end of the world' to be, in fact, complicit with it. Through the lens of this example, 'the end' perhaps comes as almost unnoticed, almost 'silenced.'

To achieve the "airpocalypse" (Ghosn and Jazairy 2014), it seems to be necessary that a disruption between the techno-hope impulse and the vertigo-trip breakthrough take place. This threshold foreshadows the future: between dream and despair, this hinge marks a potential deviation in the collective imaginary. It is a shared hypothesis which might reverse the modality of the concerted vision, from a confident mode to one of desperation. In this light, if "war is the technique of disruption par excellence," Hui (2019, n.p.) asks, "[t]oday, could global competition over the development of artificial intelligence and space technology become the new condition of such a war?" (Hui 2019). In this view, it appears that technology becomes "at the same time eschatology" (Noble 1997, chap. 2).

Indeed, the apocalypse here suggested might principally consist in "the moment of disorientation—a loss of direction" (Hui 2019). Furthermore, "such a disorientation can be seen as a desirable and necessary deterritorialization of contemporary capitalism, which facilitates accumulation beyond temporal and spatial constraints" (Hui 2019). The dual operation of abstraction and exploitation of the atmospheric space goes in tandem with the exploitation of the terrestrial and marine realm. Ultimately, Santa Maria Island seems to be part of a territorial synchronization process, in which the 'world' is animated through science and technology. However, transferring once again Yuk Hui's theory into this reasoning, "it also draws the world into the global time-axis which, animated by humanism, is moving towards an apocalyptic end" (Hui 2019).

The insular condition reveals itself as an inescapable one. It begins on the ground, where the operation is being built. And it strengthens and continues as a 'mission,' and as a 'collective imperative.' In this case, sustained

in the Portuguese history, as it was underlined several times during one of the conferences referred to: "we, Portuguese, are explorers" (Regional Government of the Azores 2021). The assignment becomes vigorously entrenched through a repetitive mantra, 'we are destined to explore.' The reiteration of the task easily loses sight of its basis; of the ground. Indeed, similar to aircraft and flying, space exploration offers a "radical rupture" "against a ground-level society" (Graham 2018, 52). On the one hand, the historical revisionism of colonialism, mediated by techno-hope, obscures causes and consequences, as if a steamroller was reducing the past and the present into a single two-dimensional layer, unquestionable and irrelevant: what stands out is the 'higher,' perhaps 'divine' mandate that must have been behind the 'deeds;' on the other hand, the only mission of the obfuscation of the present condition seems to be to set our eyes on the future. The confluence of these maneuvers emerges in the pursuit of an unrestricted action, as Conde's exposition illustrates: "[w]e need to colonize other worlds, but we carry the fragilities of our species" (Conde n.d.).

Basically, the techno-hope vulnerabilities seem extremely linked to an apocalyptic finality. Apocalypse derives from the Greek term *apokálypsis*, meaning 'revealing' or 'uncovering,' as the name of the "Book of Revelation," also known as the "Apocalypse of St. John," denotes David Noble (1997). When referring to the apocalyptic nature of hyperobjects, Timothy Morton (2013, 144) wrote that "they do not catapult us into a beyond. Rather they fix us more firmly to the spot, which is no longer an embeddedness in a world" (Morton 2013, 144). In the scope of this text, this is precisely what this eventual airpocalypse is: the disclosure of the tangible outcomes of the techno-hope apparatus. In this sense, it does not emerge as a disappearance or transcendentalism, rather it is the depletion of the conditions that appeased an earthly existence. A possible revelation, in this context, might put into question the fundaments of the process that leads to that same exposure. The loss of coordinates, in a Sloterdijkian (2008) fashion, might be perceived here as what happens when 'revealing' or 'uncovering' takes place: the population and the island appear as being withdrawn from the center of the operation. In essence, this potential transition—from hope to frustration—is what is suggested as evidence of a potential airpocalypse.

The Angel of History, see fig. 5, as famously interpreted by Walter Benjamin, looks at the past, even though the impetuous force of progress drives him into the future. Perhaps one might recall this metaphor to imagine alternative prospects of an airpocalypse, or rather, "we can also imagine a bifurcation of the future, which instead of moving towards the apocalypse, diverges from it and multiplies" (Hui 2019).

Figure 5. Paul Klee, *Angelus Novus*, (1920) (credit: Wikimedia Commons, Public Domain)

In the face of this potential vertiginous perspective, the entanglement between hope and apocalypse seems to involve a productive reflection. Between the 'not-yet' and its actual accomplishment, there might be a collective imaginary whose essence could radically shift. The focus should be on what is now emerging. The possibility of this spaceport and attached operations to be conducted might unfold into several scenarios, which entail future structures and new beginnings. New earthly cosmologies are needed, as Hui (2019) advocates. More particularly, this anticipated airpocalypse might give way to the search for new cosmologies of islandness. In other words, this is an incitement to think beyond the end of the world seen from an island.

To put it simply, under the techno-hope terms, the materialization of the space mission seems to be left behind. The politics of hope, in this context, remain in the upper spectrum, looking and measuring the Earth from above. The undeniable importance of such activities might be accompanied with a landing on the ground; which is, in fact, what Bruno Latour (2017) urges us to do. Let us, then, land on the island.

Conclusion: Back on the Ground

Since the end of the twentieth century and during all the twenty-first century, projects aspiring for space exploration, regulation and possession are part of the so-called global agenda. The archipelagic geographies of hope envision and summon the 'future,' and Santa Maria Island seems to be the next epicenter, where a new commencement is promised.

The pursuit of a planetary monitorization, its calculation, surveillance, and manipulation encompass the grasp of the Earth-object; of its totality. However, in this process of targeting the global, the singular dimension emerges as (almost) insignificant, or in other words, the goal to track what happens in our 'near' environment exceeds the importance of the earthly ground. Timothy Morton's (2013) thesis on the impossibility of a holism of any sort might prove useful for such an argument. Considering that the "*world* is an aesthetic effect based on a blurriness and aesthetic distance" (Morton 2013, 104), and that the 'world' concept "is by no means doing what it should to help ecological criticism" (Morton 2013, 106), the attention to localized ecosystems could potentially be one of the responses. If the Global Agenda Council on Space Security (2015) uses as one of their mottos 'bringing space down to Earth,' one probably might add: 'and looking upon what happens on the terrestrial ground.' In doing this, "infinity stops being abstract and starts to become very precise" (Morton 2013, 79).

The aim of this article was to articulate the techno-hope concept and the potential of an airpocalypse, in the light of the project for the construction and exploration of Santa Maria's spaceport. One of the outcomes of this exploration is the acknowledgment of a technological-hopeful instrument implicit in the discourses and policies of governmental institutions. In addition, the prospect of an apocalyptic scenario seems to unfold an "eco-colonial gaze" (Grydehøj 2017, 10), a sort of contemporary colonial ecology, which departs from an island in the middle of the Atlantic Ocean. This overlap might enable us to anticipate the scenarios, or at least some consequences, of the fusion of political power with techno-hope in the Azores. In this exercise, critical questions about who will benefit from space exploration projects, should they proceed, remain.

If "hopefulness, therefore, exemplifies a disposition that provides a dynamic imperative *to action* in that it enables bodies *to go on*" (Anderson 2006, 744), techno-hope urges to this progress to keep going. Within this contingency, the 'business-as-usual' arrangement often stands out and, consequently, limits both discussion and public consultation to a narrow space. The techno-hope apparatus seems to be simultaneously originated and directed to the same entities and individuals, justifying

itself through a narrative repetition: it combines progress, future, jobs, better life, evolution, and growth, all under the same 'dome.' To a certain extent, it appears as a circular tale, operating within the same sphere. In this hopefulness roundabout, this article suggests that there is a rift between the governmental/corporate domain, and the territoriality-to-be, expressed in the lack of concern for the materiality of the operations to come — and the techno-hope instrument — which is behind the accomplishment of this division.

The importance of satellite technology within contemporary life is undeniable, however, this progress envisaged under a techno-hope and an apocalyptic frame should be subject to a territorial and societal analysis; otherwise, the needs of the Azorean people will likely turn out to be unaccounted for and therefore neglected. In recognition of the political and strategic role of space exploration speculative scenarios, one might add that this archipelago will probably continue to be subject to new or simply adapted normative instruments, contingent to global politics. Regarding space policy specifically, it is essential to highlight that legislation and regulation are still in the process of being formulated; insofar "the regulatory framework is yet to be completed" (*Jornal Económico Especial* 2021); therefore, this article recognizes the political urgency in approaching the Azorean space strategy.

In fact, there is no such thing as 'virtual,' since it is also material, territorial, and societal; there is no such thing as a digital cloud, nor immaterial control. Through techno-hope, public and private companies construct the oblivion of these interdependencies. When the acknowledgment of this interconnection emerges, the prospect of the situation suddenly might not look so ideal. The material reality of such operations simply seems to vanish — or, at least, is relegated — to the sidelines. In the end, techno-hope could potentially translate into a loss of islandness, or a loss of coordinates; which might reveal itself as an apocalyptic consequence.

To conclude, what the overview suggests is that the crucial standpoint demands an alignment in accordance with Appadurai's (1996, 7) reasoning: "[t]he imagination is today a staging ground for action, and not only for escape." The contemporary hopeful manifestations appear as capable of volatilizing substantial matters, volumes, weights, and impacts. In essence, it seems to be 'techno-hope' over 'infrastructure,' eventually reaching an 'airpocalypse.' Fundamentally, the hope for modernization obfuscates the terrestrial ground from which such an operation is to be conducted, and the Island Escape leaves behind the island itself.

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Emma Blackett   Peroxide Subjectivity
and the Love of
(Knowing) The End

Abstract: This essay thinks about the
politics of celebrating apocalypse via ambivalent comedy. It offers a theory
of "peroxide subjectivity," which riffs off of Lauren Berlant's (2017) work
on "combover subjectivity." There, Berlant describes the universal condi-
tion of having to present to the world a cleaned-up version of the self, all
proverbial baldness covered over: that is, all existential contradiction, such
as the knowledge of death, concealed as if resolved. This condition is typi-
cally what Berlant calls a "humorless comedy," humorless because our very
recognition in the social relies on it, and because we are typically ashamed
of what we cover. But this essay considers a version of combover subjectiv-
ity which has become funny because the subject in question has dropped
her shame in an embrace of existential doom on personal, political, and
planetary scales. Taking musician Phoebe Bridgers as a primary example, I
dub this version peroxide subjectivity, bleach being corrosive and thus void-
exposing, in contrast to the combover. The essay considers peroxide sub-
jectivity chiefly as a mode of relating to apocalypse. I critique it as a mode
common to a white millennial feminist suspended between a recognition
of her complicity in world-ending structures and a lack of political language
that is not premised on the kind of innocence named by the contemporary
term "virtue-signaling," and which Wendy Brown captured in her 1993 work
on "wounded attachments." I argue that the peroxide subject responds to
this problem by exposing her woundedness *alongside* her fault — experi-
enced as a contradiction — and, by extension, welcoming apocalypse as past,
present, and future unfoldings denied by her conservative milieu.

Keywords: apocalypse, combover subjectivity, comedy, whiteness, death
drive, Phoebe Bridgers

Figure 1. I Know the End (Directed by Alissa Torvinen)

Hair is *everything*, Anthony.
– Fleabag

Phoebe Bridgers sparked a little Twitter tizzy when, after playing her apoc-
alyptic song "I Know the End" on *Saturday Night Live* in January 2021, she
smashed her guitar. People said it was a waste of gear, an exhibition of
white privilege; fans responded that no one would say that to a man, as if
this would fatally wound the critique. Nobody seemed to address the real
awkwardness of the performance: that Bridgers is not strong enough to
really break her instrument. Only minimal sparks fly, and after four or so
hits you can see her struggling to drop the guitar hard enough to even
dent the plastic monitor she aims at. She starts to look tired and a bit
panicked, and when she's done, she hugs her bassist. The viewer guiltily
squashes the thought that slight women can't be punk in the right sort of
careless way, and grants her instead a response that, whether critical or
supportive, reads the gesture as what it sought to be.

An emo auditioning for notoriety, this performance and the reception
it invites exemplifies what Lauren Berlant calls "combover subjectivity,"
a humorless genre of comedy in which existence is a kind of perpetual
"Lip Sync for Your Life!" (Berlant 2017, 332).[1] Just as, for Andrea Long Chu,
gender itself exists, "if […] at all, in the structural generosity of strang-
ers" (2019, 38), for Berlant subjectivity in general is dependent on people
confirming others' identities, as if they are complete, in a mutual dance
away from the disintegration of the self. Berlant takes toupees and the
like as the archetype of this phenomenon: a combover mutely asks oth-

[1] Berlant (2017) considers
this *RuPaul's Drag Race*
feature important as "a
sprightly, miserable dedica-
tion to humorless existence
in comic drag" (332).

ers to see intact heads of hair where there are holes, to see a (particular sort of) whole person where there is none. In this schema, all identity claims are combovers, as are everyday choreographies of clothes and hairstyles. Although this is comedic in a technical sense because of the trips and tricks made by insufficient signifiers—that is, because combovers are always on the edge of failing—we typically feel "pretty solemn" about it (Berlant 2017, 332). BBC comedy *Fleabag*'s insistence that "hair is *everything*" is, in the terms of this theory, quite literally true: without our combovers, we are nothing, no (nameable) thing.

As a sub-category of combover subjectivity—and one whose belonging in that category we will test throughout this article, as it could also be seen as an adjacent or even a contrary phenomenon—I propose "peroxide subjectivity," because Bridgers and the bleached white hair she calls her "chemical cut" ("Moon Song") articulate an increasingly popular kind of tragicomic applause for both personal and worldly apocalypse. Peroxide strips hair of substance rather than augmenting it like a combover, and often seems to be, for the already pale musician, part of an effort to embody a sort of ghost. She complements her bleached hair with a fastidiously flat affect and a kitsch pyjama-style skeleton suit (or other gothic fare), and her hair is fully snow-silver, much more literally white than your standard bottle job. This is a project of some devotion for Bridgers, who styles herself (Kerr, 2021). By calling attention to bleach as both a caustic toxin and a whitening device, I aim to provide a sketch of a subject who has understood something about her own historic culpability in world-ending systems of domination and extraction, but refuses (or fails) to defend her innocence in the face of this knowledge, instead leaning in to an ambivalent comedy that commits to nothing so much as her own finitude.

This essay uses psychoanalytic theory to develop a sense that our proverbial baldness is not just a static fact, but a deeply agitating thing, a thing with a dragging, disintegrating agency. I consider Bridgers's work as an effort to make combovers funny again by revealing, rather than concealing, this corrosive void that no subject can ever close. Bridgers seems to welcome her own disintegration, and, especially in the song "I Know the End," narrates this disintegration as simultaneously intimate, national, and global in scale. Her 'End' is at once an environmental catastrophe, an unbreachable rift in the nation, and a broken heart.

To clarify my definition of the peroxide subject, I consider some writers other than Bridgers. The most prominent of these is another recent apocalyptic pop album from Lorde (Ella Yelich-O'Connor's stage name). *Solar Power* (2021) also addresses a many-layered End, as its narrator—who is

as ambivalent and self-abasing as Bridgers — is "caught in the complex divorce of the seasons" (Yelich-O'Connor 2021, "The Path"): a scandalous dissolution, equally planetary and personal, "of the seasons" like a weather forecast and because it is so pressingly now. My definition of peroxide subjectivity thus accounts for a sentiment increasingly visible in the millennial white feminism popular to the United States and other Anglo settler-colonial contexts such as Yelich-O'Connor's birthplace, Aotearoa/ New Zealand. I suggest that peroxide subjectivity is a response to a collision of fates: a reckoning with the idea of end of the world for a subject who, unlike so many, has never been faced with such a thing (has instead been raised with every promise of futurity), and an attempt to reckon with white supremacy for a subject whose politics were likely formed, via 2010s popular feminism, around the idea of themselves as victim rather than perpetrator. This collision is experienced not as a coincidence but as an existential contradiction, even a trap: how do I contribute to climate activism or even social democracy, i.e. projects that might save the world, when I was never innocent, because this land I live on should never have been mine to save, this democracy was designed to protect me at the expense of others, and, regardless of intention, my utterance is likely to contribute to racism?

The peroxide subject responds to this crisis of innocence by calling attention to her own fault, dwelling in her own stuckness, waxing a whole body of words and sounds out of her own seeming inability to be certain of any concept or commit to any action. This would be an apology if she asked forgiveness, and it would be an acknowledgement if it prefaced a statement with any clear meaning, but she would never presume to have enough integrity for either.

My central argument is twofold and somewhat contradictory (the specific terms of contradiction between the two folds will become clear). Firstly, the peroxide subject's insistence on both personal and worldly ruin holds some political promise, especially in terms of the psychoanalytic theory of drive (I will explain this at some length). Secondly, rather than properly denouncing the sociopolitical task of the combover, peroxide functions as a paradoxical and effective version of the combover as Berlant explains it, especially for a white subject. That is, instead of a pretense of wholeness, the property of the self that is presented for recognition in order to ensure the subject's dignity is precisely her indignity, her holeness: but it works. In other words, the peroxide subject is respected by her audience precisely and only because she gives her dignity up.

Bisexual Post-Irony

> i used to think pain was meaningful
> i no longer think pain is meaningful
> i never learned anything from being unhappy
> i never learned anything from being happy either
> the way i feel about you has nothing to do with learning
> it has nothing to do with anything
> but i feel it down in the corners of my
> sarcophagus

– Hera Lindsay Bird (2018b), *Pyramid Scheme*

Punisher, the album that houses the song "I Know the End," was released in June 2020. Bridgers tweeted against the US music industry's move to halt new releases until the Black Lives Matter riots ceased again: "I'm not pushing the record until things go back to 'normal' because I don't think they should. Here it is a little early. Abolish the police. Hope you like it" (@taitorjoe, June 19). On the album, morbid political fantasies such as burying skinheads in the garden collapse into dreams of a future the narrator knows she'll never have (but where she is taller, and has given up some resentment). "I Know the End" folds together a heartbreak with a very American apocalypse: it cites *The Wizard of Oz,* "rap country" radio, lights in the sky that might be UFOs or government drones, and the freeway's kineographic melding of "a slaughterhouse, an outlet mall." Such signifiers of the End are repeated throughout the album, and this repetition creates space for something to happen inside what becomes, as the record spins, a kind of perpetual ending, an ending stuck in a loop. Love is over, the nation is over, life is over (at least as we know it): Bridgers knows this and nothing but this, except that, on a formal level, she can find in the midst of said endings a poetic comedy of pain.

Bridgers learned a humorless poetics of pain from emo, the genre most significant to her 00s Los Angeles youth. Jessica Hopper (2015) describes emo as music from the "armchair comfort of the Clinton era" that swapped punk's "lyrics about the impact of trickle-down economics for ones about elusive kisses" (n.p.). A genre peopled mostly by disaffected suburban white boys, emo, in Karen Tongson's words, "luxuriates in suffering" (2006, 60). Bridgers laughs now about growing up with a "stupid tendency to think that sad people are smarter" (qtd. in Heath 2021), a pose Berlant discusses in relation to a Kevin Spacey-type character whose

Figure 2. Bridgers performing in 2012 with emo band Einstein's Dirty Secret

combover is an "ironic version of the hard truth that life and other people will let you down [...] [.] The disturbance of failed relationality is replaced by an insider knowledge that can be shared with spectator strangers, who in turn [...] enjoy the discomfort of such knowing" (2017, 321). This insider knowledge is emo's key enjoyment, and Tongson considers this centrality of dark feeling to be proof that emo's disavowed but "true contemporary" genres are the equally unfunny dyke punk and what she calls "wounded lesbian balladeering" (the Indigo Girls, etc.). These all "dignif[y] affect and confront structures of repression in a 'home' that functions as a synec-doche for a disaffected nation," and they "opt out of normative time" with their "raw incarnations of arrested development" (2006, 56–62). Bridgers, who was a bassist in the dyke punk band Sloppy Jane as a teenager, reflects a kind of synthesis of these three genres — a blend befitting the mood of late millennials, typically more politicised than the original emos. But having begun in recent years to joke about her younger self's conviction that sadness indexes intelligence (or even is itself a kind of intelligence), Bridgers's emo makes unexpected room for a comedy that emerges at the bleeding edge between sincerity and irony.

The peroxide subject's particular blend of sincerity and irony should be understood as a sequel to emo, the reflexively funny emo 2.0, and, in this mode, Bridgers is not alone. In *Sincerity/Irony,* poet Hera Lindsay Bird critiques the shift from the popular cultural dominance of sarcasm in the 1990s to the early-00s New Sincerity movement's claim that good art is unrelentingly earnest. For Bird, what happens where these modes over-lap is more interesting: "I believe it's possible to say 'deep-purple sunset

over the barn and your lover's hand in yours' and mean it, *both ironically and sincerely at once*, in a way that doesn't contradict but instead elevates it, spinning it in a perfect linguistic hyperspace between joke and awe" (2018a).[2] Another popular example is Phoebe Waller-Bridge's *Fleabag* (2016–19), a sitcom whose central misery-comedy strategy is to play with the sensitivity of combover subjectivity: Fleabag, the main character, breaks the fourth wall to send the audience jokes about combover content that nevertheless do not undermine the seriousness of what is happening, such as accidentally removing your shirt in a meeting with a banker, or a sister's terrible haircut. Narrators in these comedies of depression that commit to the not-contradiction of ironic sincerity express detachment in self-deprecating ways that do not hide or lighten the serious feelings also at play. Implicit in this style is a recognition that irony always fails to convey the disinterest it aims for, registering instead wounding in language.

In other words, these comics articulate their pain somewhat obsessively, but by laughing at themselves and their myriad dysfunctions, negating the tendency of many progressive political narratives to dovetail trauma with innocence — or, in Bird's words, quoted above, to "think pain [is] meaningful" (2018b). This muddies the narratives of wounded subjectivity central to identity politics in the West, narratives notably critiqued by Wendy Brown (1993) as binding the subject to her woundedness more than to politics itself, thus inhibiting her aims. Berlant (2000) builds on Brown's work by focusing on how pain is publicly deployed by the "subject of true feeling" to expose "the State's claim of virtuous universality to an acid wash of truth-telling that dissolves its capacity to disavow the comfort of its violence" (34), shifting the weight of virtue to the wounded subject herself. The peroxide subject put bleach to a different use: as acid wash, it reveals as a screen the virtuosity of that very subject. She admits that she "never learned anything from being unhappy," and that she does not care about this failure, because what she cares about now "has nothing to do with learning / but feel[ing] it down in the corners of [her] / sarcophagus," the crypt of deathly desires most ridiculous and most true (Bird 2018b).

Playing with the heaviness of identarian wounds is, partly, a response to a political experience specific to these writers as late millennial white women in Western contexts. Irish novelist Sally Rooney, often considered a figurehead for this group, explains how she became a Marxist:

> I came to politics, as I think a lot of young women do, through feminism, sort of seeing myself at the centre of the political world and believing everything revolved around me and therefore noticing that because I was a woman, gender was a very important political phenom-

enon [...] Seeing female independence as being a very important goal of the feminist movement, and just uncritically accepting that idea: the *female individual,* the *independent woman,* as being a sort of political unit that we should strive to emancipate [...] And now I just don't believe that [...] My life is sustained by other people all the time, so to believe in myself as an independent individual is just delusional—I'm not independent. Independent from *what?* (2019)

The disparaging tone and the way that Rooney's story refuses to arrive at a political programme—she has just explained that she is not sure it is possible to write a socialist novel because of how commodified books are, and admitted she is not really trying to—but comes, instead, to a dubious question, typifies the peroxide subject's work. Rooney's specific skepticism about "the female individual" also points to the deeply sexual ambivalence at play in all of this: peroxide comedy's major voices are more likely than not to have depressed accounts of their own queerness, typically as bisexual women much more conflicted about sexual identity than the typical rainbow-bearing LGBTQ subject. You will find no rainbows in this media. As well as Bridgers, Bird, and the titular character of *Fleabag,* this includes various characters in Rooney's novels and their television adaptations, as well as in Hulu show *The Bisexual* (Akhavan 2018) and the recent HBO remake of *High Fidelity* (Kuscerka and West 2020). In these, "bisexuality [is] like climbing out of a burning building....... / into a second identical burning building" (Bird 2016, 48),[3] like being "kind of an omnivore" (Rooney 2017, 36), and can make a person feel like they seem "tacky [...], gauche, [and] disingenuous" (Akhavan 2018, s01e03), one hypervisible foot sadly staid in the straight world with the whole body translucent and wavering in the queer. The peroxide subject's sincere/ironic comedy is suspended in uncertainty, suspended between hard truths (all fires) and soft questions (novel food). Its relationship to identity is compromised at best.

Mixing comedic distance and raw feelings is funny because it reveals—just, as Alenka Zupančič (2008) explains, like classic gags where somebody trips over their own feet—the discontinuity between ego and body, the lag between experience and its signifiers, and the intractable limits of knowing or personal sovereignty. The peroxide subject's sincere irony trips specifically and again and again over knowing that it does not know anything, a not-knowing that it tries to articulate anyway through its dedicated ambivalence. In light of this, one can read Bridgers's *SNL* punk moment as a joke about both the absurdity of the original guitar-smashers and also as a joke about how she sincerely still wanted to try, perhaps already knowing that she would fail.

3 Note the hesitancy in the ellipsis.

Driving Out into the Sun

Committing to simultaneously meaning what you say and laughing at your efforts to create meaning poses difficulties for building sure attachments to fantasies like a cohesive political identity, a revolutionary project, or sexual fulfillment. It leaves a person a bit too obviously undetermined, unlike either the stagnant crust of ironic detachment or the flush of earnest passion. In the peroxide subject's work, this undeterminedness finds expression in a kind of dwelling on, with, even in, apocalypse.

Bridgers's "I Know the End" narrates a suspended ending that has been playing on repeat for the whole album (it is the last track). In the first half of the song, the End is the end of a love affair:

> I'm always pushing you away from me
> But you come back with gravity
> And when I call, you come home
> A bird in your teeth.
> But you had to go
> I know I know I know

Returning "with gravity" is a joke because the exchange in this scene takes place on a swing (hence also the "always pushing"), and it speaks also to the serious inevitability of romantic failure, because this is the second time in the album that someone comes to a lover as a dog with a dead bird, a foul offering that still somewhat and somehow endears.[4] In keeping with the bisexual post-ironic's sad and non-rebellious sort of skepticism about coupling, this sad pet is a very different sort of 'third' than the child or the queer figure that, in Lee Edelman's *No Future*, the normative couple produces in a dialectic that negates the would-be shattering negativity at the center of the couple form.[5]

This third is different because the couple wants it but knows it will never feel healed—quite the opposite. In *Fleabag*, similarly, a priest who the protagonist seduces is haunted by a fox. Murderous puppies and following foxes are abject little things, and in both *Fleabag* and *Punisher*, the lovers half-laugh at their canine spectre and concede that they were always ruined.

The "I Know the End" breakup gives way to an apocalyptic dream, as "I know I know I know" repeats so that it collapses the lover's going with the world's end. The repetition also unsettles the phrase "I know" so that one wonders to what extent the narrator really does "Know the End," or whether knowing is even involved:

[4] First in the album it's the singer who has the bird, in "Moon Song": "So I will wait for the next time / You want me / Like a dog with a bird at your door [...] / When you saw the dead little bird / You started crying / But you know the killer doesn't understand."
[5] See Brilmyer et al for a numerological analysis of this dynamic.

So I gotta go
I know I know I know
When the sirens sound you'll hide under the floor
But I'm not gonna go down with my hometown in a tornado
I'm gonna chase it
I know I know I know.

I gotta go now
I know I know I know.

[major lift to the bridge signals departure from the love
scene]

Driving out into the sun
Let the ultraviolet cover me up
Went looking for a creation myth
Ended up with a pair of cracked lips

This is a "hero's journey," Bridgers explains in an interview, about a per-
son bravely facing apocalypse when "all [her] friends too scared to leave
would be in bunkers" (as cited in Genius Lyrics, 2020). The apocalypse
is the sun—the irony of our time, that the genesis star is burning it all
up—and driving out to it is "like Icarus shit," she says in the same inter-
view; you're all bold "then you just get scorched." So a suicidal hero maybe,
if the 2020 Icarus is a pasty Californian lacking in survival instinct. "I'm
super super white," Bridgers continues, "and every time I go into the sun,
it's just like, *poison*." She grins as she says this, befitting the long-term
devotion to poison her hairstyle represents. That is, her grin befits what is
really peroxidal *love* for the End, not a knowledge of it.

   In the aftershocks of romantic love, US politics, and environmental
security all falling apart, the End comes to Bridgers in the song's bridge as
a strange semblance of sociality:

Windows down, scream along
To some America first rap country song
A slaughterhouse, an outlet mall
Slot machines, fear of God

Windows down, heater on
Big bolts of lightning hanging low

> Over the coast, everyone's convinced
> It's a government drone or an alien spaceship
>
> Either way, we're not alone

This "we're not alone" is a sad person giving a sarcastically hearty wink, albeit one that is a kind of dialectical response to the disastrous contradictions Bridgers describes; in other words, a response that doesn't resolve anything so much as affirm that this is all simultaneously true. Just as the sun rises, the dog will return, and "I Know" repeats, the song approaches its end by chanting "the end is here," a declaration reiterated until it wills the End into being. (On one level it succeeds, by closing the album: joke.) This is a good example of Zupančič's (2008) argument that, because of comedy's penchant for mechanistically repetitive failures from which something like life emerges, comedy is a good introduction to the psychoanalytic concept of the death drive, which is also constitutively repetitive. Neither comedy nor drive is satiated by conclusion or by obtaining any object sought, but finds moments of surplus pleasure with its ceaseless turning. In another book *What Is Sex?*, Zupančič (2017) contradicts a common understanding that the drive is anathema to life, and that we live full lives only with the triumph of at least one other instinct (i.e. Eros). She argues, rather, that the drive is the only thing that ensures that we die (and thus, live) in a way that is not biologically or culturally predetermined. In other words, the drive ensures our measure of freedom; freedom is a kind of side-effect of the drive, ensuring that every person dies in their own way. The drive ensures freedom because it is the impress of what is expelled from the symbolic order, the impress of what the social and political world demands a person bury in the process of becoming a subject; it is that hole underneath the combover, a hole with considerable force. Peroxide, making hair shine by stripping out the substance of all its pigment, is a good representative of drive understood so: both are corrosive, murderous, in/organic agencies that are also—incidentally and paradoxically but nevertheless—generative.

Indeed, Berlant's work on combover subjectivity can be understood as a catalogue of ways in which the drive is hampered in everyday life by the desire to be recognised by other people the way we want to be: a combover as a device that stifles the drive. As Andrea Long Chu (2019) describes in *Females* (a book notably steeped in tragicomic ambivalence), our proverbial hairlessness makes us vessels for the desires of other people, a universal ontological condition Chu calls *femaleness* because, though universal, society ascribes this condition of emptiness with the

designation "female." Understood thus, the combover function could be considered as a device of banal misogyny. This chimes with a range of analytical projects that understand structural violence to be produced wherever a type of person in a society is forced to represent the negativity that everyone tries to deny in themselves, as "females" are in Chu's account of patriarchy, and as happens in a myriad other contemporary and historic ways.[6] The drive's negativity insists on universal brokenness and will always be opposed to normative forms of life, especially all those that deny that the world has (that many worlds have) already ended.

As a peroxide subject, Bridgers thus gives something like a comedy of the drive and, as she loops and lags through each song and each fractal layer of The End, a cataclysm with an unusual temporality. Most ideas of apocalypse are teleologically deferred, as Oxana Timofeeva (2014) argues: we project catastrophe onto the future for essentially the same reason that we construct combovers, i.e. because we cannot accept negativity—or in Timofeeva's words, we cannot accept that "we are all already dead," that "it's not going to get worse, it's already worse." Indeed, at the risk of oversimplifying the difference between the subject and the social, projecting apocalypse onto some vague and often distant future functions like a combover for the world itself, intended to make the present (and past) iterations of 'world' seem whole. And for Timofeeva, deferring apocalypse is bad politics because visions of future disaster preclude recognition of the world-destruction both present and past. Timofeeva advocates for a "catastrophic communism" (2014) that knows and can thus respond to the fact that the End(s) have happened and are right now happening. Catastrophic communism could be seen as a radical politics of the drive, a politics that refuses to see climate change as unique but recognises it as an instance in an imperial apocalyptic series, demands to-death action, and, seeing combovers for what they are on a subjective level also, shirks the popular demand to found itself on identity (thus making innocence or lack thereof irrelevant).

By this logic, Bridgers's looping End could be a good rendering of how to relate to apocalypse in a radical way, if not communist in any clear sense, simply because although Bridgers voices a subject who cannot find a political language not premised on innocence, she makes the End perpetually present. In order to test this idea, I want to turn briefly to another example of peroxide subjectivity in popular music. Lorde's *Solar Power* is also a self-deprecating satire that takes up the sun as the central image of a dying world (Yelich-O'Connor 2021), with the slight but significant difference that its narrator does not consistently embrace her demise or consistently commit to what I have (tongue-in-cheek) dubbed bisexual

6 For some diverse examples of thinking on this structure, especially as it connects with racism, including but not limited to anti-Blackness and the Afropessimist critique, see: Benedicto 2019; Brilmyer et al 2019; Edelman 2004; Hayward 2014; Stanley 2011.

post-irony. When Lorde sings about sunburn, as Bridgers does ("let the ultraviolet swallow me up"), she says "wearing SPF 3000 for the ultraviolet rays [...] I'm gunna live out my days" (Yelich-O'Connor 2021, "Leader of a New Regime"). Sunscreen here is a kind of inverted twin of peroxide, nominally a shield rather than a poison, but a paste one imagines to be suffocating were it thick enough to score an SPF in the thousands. This befits a public health problem from Yelich-O'Connor's context: some Aotearoa/New Zealand doctors claim that an epidemic of rickets in children has been caused by people overusing sunscreen due to their fear of a hole in the ozone layer over the South Pacific. Here sunscreen is a concealing balm that just harms in a new way.

This sense that the subject is doomed by her own survival efforts, as much as by anything planetary, characterises *Solar Power* as a whole. On face value, the album is typical of Euro-American utopic solar expression—aestheticised in accordance with solarpunk works, for instance, which Rhys Williams (2019) describes as literally glowing visions of future solar-centric worlds imagined to provide a kind of bountiful equality. The first video single, for the title track, is bathed in light: there are acoustic guitars, and people dressed in linen commune on beaches for yogic rituals and skip fully-dressed into the sea (Kefali and Yelich-O'Connor, 2021a). The album's chief influences are 1970s psychedelic folk and the golden-midriff figures of early 00s pop—All Saints, TLC, S Club 7—and thematically it is about "breath[ing] out and tun[ing] in" (Yelich-O'Connor 2021, "Oceanic Feeling"), about throwing one's phone in the sea and connecting with family. But besides all this halcyon nostalgia and lite spirituality, Lorde seems, as reviewer Carl Wilson (2021) writes, to "smell the rot." The album alternates between all its light and a malaise mostly expressed through a parody of contemporary wellness culture:

> Ladies, begin your sun salutations
> Pluto in Scorpio generation (*love and light*)
> You can burn sage, and I'll cleanse the crystals
> We can get high, but only if the wind blows (...*just ri-ri-ri-right*)

In commentary on the record, she calls "love and light" a "psychotic phrase" (as cited in GeniusLyrics 2021). The song "Dominoes" pinions a man for "go[ing] all New Age" with the celebrated burn: "it's strange to see you smoking marijuana / you used to do the most cocaine of anyone I'd ever met." And in the *Solar Power* video, solar power itself is a kind of cannabinoid (Kefali and Yelich-O'Connor 2021a). Lorde takes a hit from a

bong made of a fennel root before she sings the album's most percussive and memorable line, "blink three times when you feel it kicking in: that solar power."

But even though that first video features lyrics such as "I'm kinda like a prettier Jesus," the fennel bong, and a moment where she skips past a pile of trash on the beach and mimes "ssshh" (finger to her lips), the satire initially failed to register to most listeners. An exception to this was Auckland-based writer Sam Te Kani (2021), whose review of the single calls out "the public's apparent inability to register [this as a] dead-pan satire [...] in which Ms. Lorde riffs on a tongue in cheek aestheticising of the global party-line that's cast [New Zealand] as an Atlantean paradise under the leadership of a benevolent empress." In other words, the prettier Jesus is Jacinda Ardern. And in *Mood Ring* video, it's Gwyneth Paltrow, who Lorde mocks by wearing a platinum wig while she and a clique of thin white women she calls "all the sad girls" burn sage in a calico tent, pour chia seeds between shallow wooden bowls, lay about in loose silks (Kefali and Yelich-O'Connor 2021b). She sings: "let's fly somewhere Eastern, they'll have what I need."

The audience's failure to distinguish this as satire is largely thanks to the sincerity that keeps interrupting it. That is, Lorde, much more than any other peroxide subject, admits that she mourns her loss of innocence. This is most conspicuous in a 2021 promotional video sponsored by *Vogue,* where she performs her apocalyptic lament "Fallen Fruit" after a throaty cover of Britney Spears's 2007 song "Break the Ice." This is also kind of a tribute performance to Britney's 2021 emancipation: Lorde wears red tights and a matching bra, in homage to Spears's iconic pleather jumpsuit from the *Oops!...I Did it Again* video (Dick 2000). Before an intimate, questing camera, Lorde moves with the brittleness of someone who feels uncomfortable but is nonetheless committing to sexualised movement, even overcommitting, slightly, as compensation for the discomfort. The performance reveals the gulf of time and mood between the two artists, the elder of whom was probably the first millennial popstar in the West, while Lorde, at age 25, is the last.[7] Spears, via Lorde, sings:

> I'ma hit defrost on ya, let's get it blazin'
> We can turn the heat up if ya wanna
> Turn the lights down low if ya wanna
> Just wanna move ya, but you froze up
> [...]

7 This is the "Pluto in Scorpio generation" Lorde calls out in *Mood Ring*: according to Western astrology, those born between the mid-1980s and mid-1990s.

Let me break the ice
Allow me to get you right
Once ya warm up to me
Baby, I can make you feel *hot, hot, hot, hot*

By casting back to a time in which "break the ice" could not be punned to sound apocalyptic, Lorde narrates the history in which young Spears's famous lyric "I'm not that innocent" turned out to be mistaken. Arguably, the chief complaint of 2020–1's #FreeBritney campaign is precisely this loss of innocence, given the revelation that her innocence was all along a smokescreen for the Father's captivity and design, and is thus a loss that Spears's career tracks: "we had no idea the dreams we had were far too big," Lorde sings ("Fallen Fruit").

So instead of delivering every line with equal seriousness and humour, as Bridgers does, Lorde seesaws between the modes, and the overall effect is confusing. This confusion is reflected in the album's press coverage, which emphasises that — beside all the album's jokes about white millennials trying to return to nature — Lorde really has set her phone to greyscale to make it less addictive, deleted social media, and spent more time outside. At the end of "Mood Ring" she sings: "watch the sun set, look back on my life / I just wanna know, will it be alright." In an interview seemingly designed to clarify that the song is satirical, she also describes this line as her own voice chiming with the blond Paltrow caricature (as cited in GeniusLyrics 2021). And finally, as if her position had not yet been ambiguous enough, in June 2022, she dyed her once-iconic dark hair the exact blond of the *Mood Ring* wig.

It is tempting to argue that Lorde's interest in surviving the apocalypse — that is, her failure to commit to a comedy of the drive — makes her a more conservative figure than Bridgers. This argument would reflect a sense that Lorde's work is more drawn to cliches, less reflexive about its solipsism, and selectively deaf or indifferent to its likely reception. Such a critique also matches the accusations of cultural appropriation levelled at Lorde's decision to release a 6-song EP version of *Solar Power* in the Māori language, under the title *Te Ao Mārama* (meaning not "solar power" but "the world of light"). The original English-language had already made conspicuous a settler-colonial attitude: in the *Fallen Fruit* music video (Kefali and Yelich-O'Connor, 2021c), Lorde looks at a distinctly Aotearoa/ New Zealand foreshore, framed in a long shot from behind her so as to capture the landscape as beheld by white eyes, in the tradition of settler cinema. In this pose, she sings: "how can I love what I know I'm going to

lose? / don't make me choose," her voice rising pleadingly. To lose some-
thing requires first having it, and looking at this place while she sings this
line implies that what she possesses is this colonised beach, and she wants,
in spite of what she understands about imperialism (remember "let's fly
somewhere Eastern"), to keep it.

Bridgers is so thoroughly bleached it would be very difficult to accuse
her of appropriation. She also feels dislocated from place: where Lorde
still wants the stolen land on which she was born, Bridgers in "I Know the
End" sings "I'll find a new place to be from / A haunted house with a picket
fence / To float around and ghost my friends." She presents an image of
home as only existing beyond the grave, and an image with character-
istically incongruous cuteness. Comparing her with Lorde makes it pos-
sible to frame Bridgers's comedy with a paradoxical kind of logic: Bridgers
is more successful at failing to create meaning. In other words, in being
fully committed to meaning everything at once and thus nothing, no (one)
thing, Bridgers departs from content in favour of a formal ambivalence so
complete it is a form itself: a split form — sincerity/irony — no less read-
able for its splitness. Lorde is unable or unwilling to consistently produce
any particular sort of content or form.

Epitomising this difference is Bridgers's embrace of the end as com-
pared to Lorde's albeit doomed interest in survival. Lorde's interest per-
sists in the face of apocalyptic knowledge and seems to require a renewal
of settler-colonial possession, a sorry return that Freud would describe
as the turning-outward of her death drive: in *Civilization and its Discon-
tents,* Freud (1962) writes that the externalisation of drive in the form of
aggression (or, here, settler possessiveness) is what dooms every society
to violence, so this move from Lorde could be considered a comedian
of the drive after all. This makes it worth noting that the two artists are
collaborators: Bridgers provided backing vocals on nearly half the *Solar
Power* record. Te Kani (2021) registers Lorde's ambiguity as something of
an achievement: "It's not like Ella whatever-her-last-name-is has presented
herself as an overtly political figure to date — no wee feat considering this
climate of compulsive virtue signalling." Yelich-O'Connor concurs: "I'm
not a climate activist, I'm a pop star. I stoke the fire of the giant machine,
spitting out emissions as I go. There is a lot I don't know" (as cited in
Snapes, 2021). To succeed at non-meaning, or to fail at it: is there any real
distinction between these, as reflections of the drive, as ways of relating
to apocalypse, i.e. as politics?

Peroxide as Combover

"Hope everyone's enjoying their apocalypse," Bridgers says cheerfully, standing behind the desk of a very two-dimensional Oval Office: a cheap green screen setup, as if for a comedy skit. This is her September 2020 NPR *Tiny Desk (Home) Concert*. She wears a skirt-suit that would be presidential if it was not so grey—instead it seems she's bringing a precociously washed-out Lynchian realtor into her sartorial repertoire—and her bandmates look like bodyguards in black ties and Aviator sunglasses. She plays a couple of nice songs, and then before the major lift to the "driving out" line in "I Know the End" (always the last song of the set), she switches off the political stage to finish with just the green sheet hanging behind her, framed mostly from the side by a shaky handicam so you can see the edges of the screen, pegs and all.

American politics is propped up by nothing but its own image and in the *I Know the End* video, the drive is depicted as running through the night rather than driving at the sun, what seems to be a perpetual night in brutalist concrete spaces with a surfeit of dystopian signatures (grey stone buildings; long corridors with those replaceable MDF ceiling tiles that always have brown stains; prison-like uniforms and zombie-like uniformity of movement; and, the most contemporary dystopian image, empty arenas). Everything is a bit backwards—she is wearing her skeleton suit in the bath at the beginning—and her running articulates a distorted lifepath: before she sets off, Bridgers is handed the apple of knowledge by her younger self, a dirty blond child; she takes a bite, drops the apple, marches out of a concrete compound that might once have been a grand government building, and runs onto a baseball pitch, where her band is. With a socially distanced handful of robotic inmates as an audience, she starts thrashing her guitar for the song's cascading end. The musicians all wear the signature Halloween-style skeleton suits, and one of the guitarists has a platinum wig, too: a Bridgers copy and reference to an earlier video, *Scott Street* (Lill 2018), in which a motley crew of people dress as her and bash a piñata that also looks like her. At the end of *Scott Street*, you notice Bridgers is one of the clones in this crowd, both self-negating and overcommitted to her aesthetic.

In the middle of the zombie audience at the end of *I Know the End*, an elderly white woman dances, having somehow avoided zombification, and after playing her last few bars of distorted guitar, Bridgers runs to her. They grab each other's faces and begin to scream gutturally, triggering a sequence of jump cuts to pans though the haunted stadium as Bridgers yells into the face of her death, a figure whose hair is the same colour as

the present-day but because of age (peroxide kills). Then, as the music fades, we hear a choked whisper that sounds also like faraway crowd screaming, and the shot blacks out for a moment, flashing back to reveal that the white-haired pair's embrace has become a long kiss that blinks in and out of visibility as though under a police searchlight (see Figure 1, page 1). The kiss is a comic tribute to a sodomitical self that knows it can't be healed, the record's anti-signifying yell routed into visibility through this masturbatory double.

"Apocalypse" in its old form means 'revelation' or 'unveiling.' This etymology implies that the End actually precedes something else, a lifting of a screen. Bridgers reveals that running to the End, at least for her, secures her bond with the one thing she knows for sure, which is also the one thing she always had and can always have: her death. This peroxidal attachment to doom is in many respects a kind of anti-combover. Bridgers embraces indignity and revels in the worldly fault of both politics and love. Naturally she does not articulate her project as one of embracing negativity or drive, but her gesturing towards it gives form to an optimism that almost, or to the extent that any artist could, takes negativity itself as a love object.

In *Sex, or the Unbearable* (Berlant and Edelman 2013), Lee Edelman gets close to endorsing this by claiming that a "fantasy of breaking fantasy down" is the only solution to the problem of hetero-/homonormative sexual optimism (87). Sexual optimism, which this book writes as almost interchangeable with 'fantasy' in the psychoanalytic sense, is a problem because it always negates negativity. Edelman acknowledges that having a fantasy of breaking fantasy down is a contradiction and commits to it anyway, perhaps thinking that the irony of both his acknowledging this and his position regarding fantasy make both radical; irony, for Edelman, has a "corrosive force" against the symbolic order, because that order that relies on language to mean what it says (2004, 23). He acknowledges that there is no way of relating to a political vision or even to other people except via the optimistic structure of fantasy, but insists on a project of destroying fantasy anyway, an all-in commitment to the antipolitical thesis of his *No Future* and a kind of theoretical cheat. Forgetting that irony is a form in and of itself—that irony, too, can be read—Edelman appears as something like the Spaceyesque figure Berlant (2017) studies, for whom irony is a kind of last-ditch defence against a sincerity that irony reveals in spite of the speaker's wish to appear uninvested.

This makes the peroxide mode look a little better: because the subject knows that everything she could say is readable also for what it might contrarily reveal about her, she is armed by nothing at all against her ambi-

valent love of her nothing, a love whose comic double-vision brings her closer to an exhibition of holey subjectivity than Edelman's anti-fantasy. The peroxide subject knows that she does not know what to do or what to think, knows that pessimism always betrays the subject as optimistic on a formal level, knows that all she has is her nothing, but knows also (as opposed to Edelman) that the nothing is not getting her anywhere and is thus terribly funny—funny and terrible—and a little embarrassing, like knowing you're too weak to smash a guitar but trying to be punk anyway.

Conclusion

As the *I Know the End* video indicates, Bridgers has, in the End, her death, and this she shares with her audience. When, after the green screen cracks in the NPR Tiny Desk concert, the "end is here" chant starts, and little phone-in videos of people singing along appear, dotted around Bridgers and her band. There's tension in all the faces as the fans wait for the song to build to the catharsis of bellowing into the void left by US national politics. This devoted echo is sure to be part of the reason Bridgers's fame has risen in the time since. *Punisher* was lauded upon its release for supposedly predicting the major events of 2020 in the US (especially the pandemic and Black Lives Matter resurgence). In the tweet releasing it, Bridgers cheered at BLM rioters to keep going because she loves a burning world. Her interest in staying with disintegration—which is an attachment to the End, not a prophecy about it—has earned her a reputation as a "voice of a generation" (Moreland 2020). Bridgers offers her fans a scream to repeat, choked by its comic ambivalence but, as a choked thing, not hampered in the least, because it wins Bridgers public esteem just as well as any combover.

Apparent in the work of Bridgers and Lorde—as well as the various other contemporaries I mentioned, including Phoebe Waller-Bridge, Sally Rooney, and Hera Lindsay Bird—is a strain of feminist cultural production founding itself on an insistent not-knowing. This is noteworthy, as most feminisms have been premised on expanding knowledge. In Second Wave 'consciousness raising,' the most relevant example, the expansion of knowledge was also a project to make trauma politically useful, which contributed in turn to the overvaluation of what Berlant (2000) calls the "subject of true feeling," establishing the virtue of her pain as guarantee for her rights as a citizen. A true reaction to this, the peroxide subject's not-knowing is intended as an insistence on her guilt, and so it is also a kind of rejection of citizenship. The result could be understood as a kind

Figure 3: Bridgers performing for NPR Tiny Desk (Home) Concert in September 2020

of *juxtapolitics*, Berlant's (2007) term for cultural projects that sit beside politics as such, the prefix *juxta* indicating both *close to* and *in contrast to*. Juxtapolitical culture is so not because its subjects have no stake in politics, but because they have given up on its terms of engagement. None of this erodes the dominance of white women in feminist popular culture; in fact, in this context, the peroxide subject's wilful falling out of (political) life perhaps ensures that dominance better than anything else could.

There is of course nothing new about the reification of white feminine dominance in cultural production. Indeed, the cases I consider and my focus on peroxide as a literal whitening technology call for a more sustained analysis of the peroxide subject as a specifically white, Anglo, and settler-colonial creature, even a contemporary twist on the age-old white supremacist casting of elite women as beacons of cultural purity. Such an analysis would frame peroxide subjectivity as a response to myriad contemporary Indigenous resistance movements, Black Lives Matter, racialised migrant crises, and the rise of neo-Nazism; it would argue that the peroxide subject replaces the wash of virginal/motherly purity that has historically glossed the white woman with a caustic melanin-dissolving agent that binds her to (her own) toxicity but nonetheless still beautifies, so that, in offering up her nothing, the peroxide subject loses nothing, gives nothing up, indeed is met with popular ascendancy. This is indeed happening, and it has an even more definitely white supremacist risk wherever the peroxide subject frames her own hole-ness as an actual property of whiteness — one can sometimes detect hints of in this in or around the work I have considered — as though racialised people are the new bearers of virtue, and whites have exclusive possession of indignity. Indignity must

be universal. This paper is a case study in a particular sort of depressive white femininity as one modality in which a subject meets the revelation of her own culpability and shelter and, faced also with the universals of her primary masochism, impotence, and already-brokenness, chooses to surrender. If her indignity can be praised as universal, this all might not preclude a broader popular shift to privileging subjective fault over subjective innocence, which is no minor event in this climate of compulsive virtue signalling.

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Lena Schmidt ~~Pouring Lead~~
Melting Wax

Synopsis

~~*Pouring Lead*~~ *Melting Wax* is a critical
introspection that seeks to approach the consoling effects of apocalyptic
narratives through the reflection of melting. Melting and rigidity are not to
be understood merely as poles between which this essay moves themati-
cally, but rather as its own mode of movement: When the wings of Walter
Benjamin's *Angel of History* are clotted with black oil, when he can't break
out of doomscrolling, when Icarus and Daedalus fly in sweeping sinuosities
over the debris and the wax begins to melt, when YouTube videos of glacial
collapses and volcanic eruptions trigger a maelstrom and paralyze those
staring at them, when Day X, the X at the top right of the video window,
external hard drives, and *The Exform* of Nicolas Bourriaud intersect; when
Anne Boyer's *Clickbait Thanatos* crosses paths with Althusser's theory of
the teleological structure of every genesis. The essay seeks to wrest from
its analysis the causal concatenation of temporality, temperature, and form
a self-emptying narrative that remains pliable and mobile even as glaciers
and the Svalbard seed archive melt, as magma leaks and hardens, as his-
tory proves eruptive, porous, and incomplete, and yet the future seems so
determined, when the archive above and the future ahead seem to loom
like dark clouds, when people choose to be frozen in death, longing for the
eternal or for the end, and let themselves slide in morbid solemnity into the
infinity pool of the apocalypse, and from there admire the dazzling aesthet-
ics of the sunset.

~~Pouring Lead~~
Melting Wax

No the end is not near
The end is not nearly what you think
No the end is not near
The end is not nearly were you think it is
— Benny Hester (2016), "No the end is not near"

There is a painting by Klee called Angelus Novus. An angel is depicted there who looks as though he were about to distance himself from something which he is staring at. His eyes are opened wide, his mouth stands open and his wings are outstretched. The Angel of History must look just so. His face is turned towards the past. Where we see the appearance of a chain of events, he sees one single catastrophe, which unceasingly piles rubble on top of rubble and hurls it before his feet. He would like to pause for a moment so fair [verweilen: a reference to Goethe's Faust], to awaken the dead and to piece together what has been smashed. But a storm is blowing from Paradise, it has caught itself up in his wings and is so strong that the Angel can no longer close them. The storm drives him irresistibly into the future, to which his back is turned, while the rubble-heap before him grows sky-high. That which we call progress, is this storm.
— Walter Benjamin (1980), *Über den Begriff der Geschichte*

Aufheben *hat in der Sprache den gedoppelten Sinn, daß es soviel als* aufbewahren, *erhalten bedeutet und zugleich soviel als aufhören lassen,* ein Ende machen.
— Georg Willhelm Friedrich Hegel (1979), *Die Wissenschaft der Logik II*

As much as capitalism's humans seem to generally suspect we should or will die off and take the world with us, many of us want to live, at least in a manner.
— Anne Boyer (2017), *Clickbait Thanatos: On the Poetics of Post-Privacy*

With a bang, sparkling wine foams over the bottleneck and runs over the cool green glass in cascades of golden bubbles. The foam of this liquid that was once obtained from grapes—which were once plucked from curly vines, then alienated from its original forms in lengthy processes and stored in cold cellars, and which yet seemed to have anticipated its intoxicating future, being all bubbly as a fruit already—mounts up. A beautiful eruption! The crowd acknowledges the spectacle with murmuration. I am sitting in the middle of a cloud of smoke, in the middle of what would be called a *Menschentraube* in german; a raceme of people, translated into a cloud of people in a kitchen and we are talking about the climate crisis and the mood drops and we let our thoughts dwell on and glide into the apocalyptic as if it were a warm, sparkling bath. We get gloomy and, at some point, the conversation suffocates and everyone looks to their phone screens and sighs and pours another glass of that comforting, foamy champagne. All of a sudden, I think of Pompeji. Of the many people, locked in their poses, eternally holding the grapes above their gaping throats, stretched out on the carpets with their gracefully falling togas, leaning on their elbows, feasting sideways. Out of nowhere, people who had just planned to brush out their stomachs with the feather of a duck appear in my head; who had just bent over a huge vase to retch when death took hold of them and poured them into the mold of this undignified pose forever. The images that immediately pop up in my head are plucked from scenes of decadence: soft figs, clasped by stone, glowing feathers, cleavages, fingers, jars, jugs, mouths, fans clasped by fists, skin eaten by fire, melted glass.

We want to pour lead. I don't want to read the future as a whole, only as much as I can carry with a spoon. However, I had completely forgotten that lead is a toxic heavy metal. Which means that the lead that we usually bought in shapes like four-leaf clover, gold bars or hearts, packed in a plastic kit together with the punily printed paper instructions and semiotic guidance to interpret the fresh shapes, has been replaced by less harmful matter. That's why we are now pouring wax. The round belly of the spoon over the flame darkens in sooty streaks: obscure, like a cave painting. Above, the wax melts in the heat. Like sugar, I think, or heroin. We melt down the future—or rather—we melt down what becomes the future.

What do I imagine my future to be made of?
- *lead*
- *ash*
- *sugar*

- *narcotics*
- *wax*

A German proverb that pictures dying suddenly comes to my mind: *Den Löffel weitergeben*. It literally means: to pass on the spoon.

The melting wax and our fear of self-inflicted doom lead my thoughts to the story of Daedalus and Icarus: how all the techno-futuristic promise of nature's mastery clings to their self-made wings of feathers and wax. How Icarus first begins his flight in the more tempered sine curves of his father, and how hubris pushes his mechanical flight curves into amplitudes that go further and further to the extremes, and how the sun scorches his brain so that his whole construction of ever higher spiraling acceleration eventually falls from the sky like one of the countless, seemingly shock-poisoned birds from one of the YouTube videos[1] that the watchlist algorithm had suggested to me the night before, after the video of a gigantic glacier floe slipping into the water, with eery, agonized (or perhaps satisfied) sounding moans; accompanied by tense laughter and excited murmurs and the words OH MY GOD, repeatedly proclaimed by the doomsday voyeur behind the camera; he persistently holds the view on the chunk of ice that causes the Arctic Ocean to rear up under the pressure (or yet the pleasure) until the boat, and with it the enraptured people, shouting OH and AH and OH MY GOD and the camera filming the scene are tossed up and down by the enormous waves in a gentleness that could not do justice to the violence of that moment at all.

As I stared mesmerized at the screen of the laptop, the sudden fall of all these birds from the sky had seemed to me like an evil omen. I had to think immediately of the Old Testament plagues, of a divine punishment.

These are our amplitudes: record summer, century flood, heat wave, cold wave, melting of the polar ice caps, murderous drought, glacier collapse, blizzard, wildfire.

The wax on my spoon has now melted completely. I turn the spoon over abruptly and expect a hissing sound, the kind I knew from the way lead melts. It does not come. The wax also solidifies, almost as quickly as the lead, but without making any audible noise.

I hardly know anything about Pompeii, actually. I have only seen pictures. I do not know if the pictures I remember are actual photos of excavations, or if other, probably pop-culture representations of 'ancient Rome' have infiltrated my memory. I am not even sure whether or not these representations could be distinguished from representations of 'ancient Greece' or of diffusely confused memories of the extinct peoples mentioned in the history lessons (Trojans, Spartans, Etruscans; not to

[1] (Inside Edition 2022).

mention the innumerable peoples left unmentioned). Only later I find out that the majority of the population of Pompeii should have survived the eruption of Vesuvius. Unlike the inhabitants of Herculaneum, who were completely eradicated by the volcano. I had never heard the name of this other city, which is not called Pompeii. And the pictures of Pompeii, which I then find on the internet, have nothing in common with the opulent feasts of the rich Romans of my imagination. The plaster that was poured into the empty spaces enclosed by caked ashes, where the dying bodies decomposed almost two thousand years ago, shows only schemes. No revelry, no orgies, no vases, no togas artfully thrown over the shoulder, no feathers, or fruit bowls, or banquets.

I think: our flesh is no sweeter than that of figs. Our skin is no thicker than that of grapes. In skin as well as in stone, time engraves itself sooner or later.

In Pompeii, it is the cavities that make visible where slave women were corralled, where horses and dogs tried to break free from the pole. The gaps in the rock are filled in, forming a continuum that we can then use as material for our romantic visions of the approaching end of the world.

One of the first suggestions Google gives me for my search of the Pompeii excavations is "Pompeii lovers."

And indeed, there is something undeniably romantic about the idea of being preserved at the instance of the most intimate embrace, of being embraced together with one's lover or lovers by the glowing molten, erratically emerged core of the earth, crumbling together into dust and forming a single, fused void, cast into a single plaster structure that would still touch many hundreds of generations to come. How nice to be remembered in such a way. As a sculpture of something as fleeting as love. I look at the two central figures in the video HUGE LAVA FLOWS LEAVE PEOPLE IN AWE-MOST AWESOME VIEW ON EARTH-Iceland Volcano Throwback-May31 2021.[2] Their tiny silhouettes stand out dark against the growing lava flows. As they get closer, I find myself speculating about whether they are about to kiss. How cheesy, I think to myself, and then I'm a little disappointed when I realize that the two have only moved closer to take a selfie. Which is similarly predictable, and somehow makes me sad.

I think of the poison and ashes as I scribble away with my pencil later:

> *Daedalus and iCarus flying in gentle up-and-down motions*
> *over the sea, admiring the view. The sun is blazing.*

When I write, I pour lead onto the mould-made paper. The lead then scrapes across the guiltless white paper like a sickle, reaping what is meant:

tireless, selfish, and destructive. I enclose the ideas in the crouched arcs of the letters, expressing them the way one would put out a cigarette. Burn holes into what I mean. I write: crooked black letters, porous as volcanic rock, growing continuously, line by line, break by break, into a surface. What exactly it is that douses and ignites and hisses and consumes the silent scenery inside me, I don't know. Only when everything—hardened into a text in motionless chains of words—lies there and cools down, can I see something. I stare into the letters, the small, brittle rows; epitaphs of my once fluid squadron of feelings. The meant has survived before (or behind) the self death: he has baked it into a form.

Trying to remember the exact story of Daedalus and Icarus, I had searched the internet and stumbled across one sentence. It said: *Ikarus symbolisiert unsere eigene Sehnsucht zu streben.* (Ikarus symbolizes our own desire to quest)

Instead of *streben* (to quest, or to strive for), I read *sterben* (to die). It seemed to me as if the anonymous author of this text had intentionally set a trap to make us fall, and by us I mean everyone who reads too fast, whose reckless or restless eyes are running over pages relentlessly. At least—I thought—I guess I am not the only one who misread this sentence.

I think of the internet as an abidingly reformatting constellation of clouds, running across the skies like a glitch, a programmed piled cloud, looming above our horizons, invisible yet intransparent. I picture the clouds as infinite heaps of data whose voluminous cumulus-bellies contain lost password keys, discarded algorithms, deleted memories, closed tabs, saved links, all of them floating in the guts of the atmosphere: eternally *aufgehoben,* set aside; saved and suspended at once. QR Codes appear to me as encrypted cowslips, because they use the same codes that were once ascribed to death: cryptic, impenetrable, black and white. Their checked pattern curates the following questions: When will our gravestones be digital? Will remembrance soon take place on screens only? Who will take care of my profiles when I am dead? Who will fill my moulds and who will fill my cavities and who will excavate them?

In his book *The Exform,* the Philosopher Nicolas Bourriaud writes (2016, 11):

> Things and phenomena used to surround us. Today it seems they threaten us in ghostly form, as unruly scraps that refuse to go away or persist even after vanishing into the air. Some maintain that the solution would be to forge a new contract with the planet, inaugurating an era in which things, animals and human beings stand on an equal

footing. Until then, we inhabit an overfull world, living in archives ready to burst, among more and more perishable products, junk food and bottlenecks.

Bourriaud's observation of the bursting archives, of a world that is sated with itself and its ghostly forms, conjures in me the images of an eerie ark, chasing the visually distorted waves on the screens of an endlessly flooded world, chasing continuously and without control, chased in reciprocity by the anxious anticipation of its end; and yet, no matter how fast it gets in its mad rush, due to the lack of birds, the lack of olive branches, the lack of a prospect of an end to the flood, the view on the waves never changes and thus it appears as though the ark doesn't move at all. While in its belly, a proliferating freight of pictures, comments, probes, threads, logos, and photos are being set aside to grow their own forms of life.

Countless people in academia and in the arts are dealing with archives at the moment. One archive, that is repeatedly being referenced, is the global seed vault in Spitsbergen. It emerges in articles, novels, artworks and poems. A cousin to Noah's Ark, just that it isn't in the sea, but in the ice. Which, after all, *has* begun to melt. Seeds of all kinds of plants are kept there frozen to revive in case of a global catastrophe. This idea has sprouted amidst the cold war, the first samples were frozen in 1984 — of all years — in a deserted coal mine in Longyearbyen.[3] However, the website of Global Seed Vault Svalbard emphasizes, that the actual repository is, *of course*, not in an abandoned coal mine, but in a compound carved into the rock of a mountain in the permafrost.

But the archive also includes periodic melting on various scales: the carcasses exposed by the thawed permafrost and the bacteria revived by thawing on bones frozen for millennia, as well as all the smells and odors of growth and of decay that scintillate and flitter and eventually fuse in the pollen-heavy spring air every year. It embraces our fist-sized hearts that cramp as the contradiction that spans between the longing for and the fear of melting nearly bursts their chambers.

The archive is also about cryonics: the science (or economics) that was built around the belief that one can simply be frozen shortly before or while dying and revived in a later century. The U.S. company Alcor advertises their service with a vague promise of immortality: *"A fulfilling life doesn't have to end. When today's medicine gives up, cryonics takes over."* And under the title *Pausing the Dying Process* it states: "The definitions of death changes over time as medical understanding and technology improve. A patient who is declared medically dead today could be revived in the future" (Alcor 2020). For an attempt at immortality, one would

[3] The town of Longyearbyen was founded in 1906 by an American entrepreneur named Longyear as a mining town and bombed by German Wehrmacht soldiers during World War II.

have to pay at least 180,000 Euros to Alcor, plus ongoing costs of 170 Euros a year for the storage of ones' body in life-size, metal shock-freeze containers mysteriously shrouded in ice fog. The company is located in Scottsdale, Phoenix. Why Scottsdale? Alcor anticipates the question for browsing future customers and immediately answers with a "Natural Disaster Risk Map" on which Scottsdale is marked as a small red dot in a region that is marked as the least disaster-prone place of the world. The urge to conserve—naturally—goes hand in hand with a keen awareness of disasters:

> The freezing of a body occurs through vitrification. This is a very rapid cooling process that prevents crystallization. Slow freezing of water in the body would produce ice crystals. The sharp edges of these would damage or destroy individual cells. This is why vitrification is chosen for cryonics. The method results in vitrification of the body (Alcor 2020).

Music seeps through the open door from the other room. One of the rappers, Chynna or Oklou says something in the intro to xternal locus in a cool and bored voice that burns into my mind:

> 2018 everybody needs a fucking external harddrive (Chynna and Oklou 2018).

When I'm not writing on my laptop, I prefer to write with a pencil. It allows me to erase anything that has become *überflüssig,* superfluous, literally *too liquid*. Later, when I want to give my search for the connections—between disappearance and liquefaction or retention or solidification, the relationship between archiving, flooding, and spilling—the lofty title *Dialectic of the Archive in Times of Digitization*; I immediately notice the hubris of this title and let it disappear through the friction of my eraser in streaks of lead mist.

With their waxy, flexible shoulder blades moving glued-on wings, Daedalus and iCarus fly over the sea of images, plastics, trash, debris: something Angelus Novus would never have done. Angelus Novus is doom scrolling on and on. He stares, as if his view is adhered at the screen which is moved on and on by his buckled finger and his eyes race and his tired gaze digs, screws almost mechanically into the endless deep layers of the timeline. He is exhausted and wants to return; wants to go and return to the unfragmented world when it was analog and a vessel: full of senses and things, with an unimaginable capacity to grasp. The present has run

out. Sense is melting away, foaming over the rim or seeping through the osmotic walls of the now digital world. And yet Angelus Novus cannot look away. He sighs: Angelus Niveaulos is once again taking a thousand photos. But father and son up there just plow through the clouds, up and beyond, they don't scroll backwards. They don't care about the debris, nor about clay jars or vessels — they leave the mother unmentioned — they care about the higher, the further, the flight forward. Not too high! *calls Daedalus, because he knows: iCarus may overdo it in the end.*

When I write archive, I also mean my need to capture, to document this evening. Our need to take photos of each other and of ourselves and the things around us, of the beautifully set table, of the crystalline glow of the champagne flutes that we want to preserve in their filled state for all times, of the sky cracking open in a manifolded multi chromatic supernova as 00 o'clock strikes and a feverish noise breaks out, as if the city — soaked in humid air, as though in cold sweat — were rebelling against its mortality, as if it had something to prove, as if it wanted to show us, howling and thundering: Look, I'm still here. I mean our fear of disappearing.

I try to imagine the inhabitants of Herculaneum: the shaped gaps in the rock where no plaster was poured. I don't succeed. My imagination of them always falls back into the two-dimensional, like the negative of a photograph: the air around the empty, absent bodies is filled, lead heavy and made of stone

> Das Aufbewahren selbst schließt schon das Negative in sich, dass etwas seiner Unmittelbarkeit und damit einem den äußerlichen Einwirkungen offenen Dasein entnommen wird, um es zu erhalten. So ist das Aufgehobene ein zugleich Aufbewahrtes, das nur seine Unmittelbarkeit verloren hat, aber darum nicht vernichtet ist (Hegel 1979,113).[4]

Writes Hegel, and I think blasphemously: Maybe there is something to the cult of Hegel after all, if he understood the internet long before it even existed.

We live in a gigantic archive. We cower there, barricading ourselves behind a weightless overload of images. Evidence of our smooth faces, the world is a stage, our myriad frozen mines circulate on the net. And as time melts, the need to archive, to save, becomes increasingly urgent. If you live in an archive, you naturally think you have to permanently produce archival material to preserve your habitat.

In the *Theses on the Concept of History*, Walter Benjamin (1980, 694) writes:

[4] The preservation itself already includes the negative, that something is taken from its immediacy and thus from an existence open to external influences, in order to preserve it. Thus, what is kept is at the same time what is preserved, which has only lost its immediacy, but is therefore not destroyed (author's translation).

The chronicler, who recounts events without distinguishing between the great and small, thereby accounts for the truth, that nothing which has ever happened is to be given as lost to history. Indeed, the past would fully befall only a resurrected humanity. Said another way: only for a resurrected humanity would its past, in each of its moments, be citable. Each of its lived moments becomes a citation *a l'ordre du jour* [order of the day] [sic] — whose day is precisely that of the Last Judgment.

And I almost despair of this and think: But we actually have the internet now. What have we done wrong?

The constellation of the satellites, which drift apart continuously, changes constantly, and who has even set out for the tiger jump under the open sky of history, who has even already stretched all fibers almost to the breaking point, stops in the freeze; because, for the jump, suddenly every direction is possible and the sky or the view is suddenly fogged or pixelated.

My hand, or its digital extension on the screen rests on the X at the top right of the video's window frame. The X is a letter that promises resolution: two strokes striving in opposite directions, cancelling each other out: 1 - 1 = 0. Bourriaud writes about the ex-form, Chynna and Oklou rap about x-ternal harddrives, the so-called Day X is feared and summoned by preppers and social Darwinists as they sit on cold cans of ravioli in bunkers, eagerly sharpening their hunting knives. The ex-paradise is where we sit (a little cross on the map) and sweat in the extreme heat even after the sun has set. Deus X Machina flexing. In german, to *ex* a drink means to chug down a drink, for example, if you want to get intoxicated quickly or just want to get it over with: *Ex* the schnaps. *Ex* the medicine on the spoon or dissolve sugar in it, because a spoonful of sugar makes the medicine go down. Isn't X also the variable of exchangeability? The cursor on the small checkbox with the X, directed by my hand, wants to put an end to the video, I want to click on it right away, but in the video, people scream and run towards the camera and the sight of their gaping mouths makes me think of craters, of the earth breaking open and of the mouth and the earth in the mouth once it is under the earth, eventually; and then I see the volcano. The expression of the people running forward is as if blinded, although the lava rolls up from behind them.

Bourriaud names the capitalist longing for a smooth exchange of everything that is commodity-shaped, that is: everything; everything circulates. Everything used to seem like it had a linear current, now everything can barely even be captured in a circuit. Now everything dissolves.

Panta Rei is now flowing in all directions. It deliquesces. When you flow in all directions at the same time, you don't move physically. Instead, you melt away.

> All the while, capitalism boldly dreams its dream of ‚frictionless' exchange: a universe where commodities — beings and objects alike — circulate without encountering the slightest obstacle. Yet ours is also an epoch of squandered energy: nuclear waste that won't go away, hulking stockpiles of unused goods, and domino effects triggered by industrial emissions polluting the atmosphere and oceans (2016, 12).

In 1985, a year after the first plant seeds were frozen in Spitsbergen, Althusser wrote that the structure of any genesis is necessarily teleological. One could, therefore, find in the presumed origin (according to Alhusser, according to Bourriaud, according to what also becomes more and more clear to me) only what one is looking for in the present. Every process is determined from its end. Thus, it is the present that modifies the past, not the other way around. Instead of speaking of births, Althusser, according to Bourriaud, looks for surprising and paralyzing "eruptions" (2016, 50).

Something about this makes sense to me, but I'm still not quite sure I get it. In an attempt to find out more, I stumble upon a web page titled: *Thinking the process from the end*. It's about digitization offerings. Something about thinking digitization from the end sounds exciting, I think. Also, the author calls himself "the simplifier." He writes:

> What is the end? You may be asking yourself: if I am to think of the process from the end, what end should I define as the starting point? The end of a transaction? The end of the customer relationship? A legitimate question (Authors translation, Schmidt 2023).

What I was looking for — from the viewpoint of my present — was actually something else. And doesn't that mean that my present represents an end?

What do you think Icarus is thinking as he stands at the boiling point of his invention? Not true father, we have not built ourselves wings because the sea bubbles below and because the sky glows above us, no, only because we like the view from above. It foams so beautifully; it glows so worthily and woefully. The golden section I apply to the view from above is the color of sunset. Beautiful, melting world. iCarus already feels the dripping of wax on the quills of the artificial wing tips. The magma fingers down

there scroll on endlessly, across the surface and solidify in their writhing, steered by the glare emanating from the glistening bad visions, they congeal and yet they scroll on. Time drips and drips.

I want to get to the point. But then I do: one more point. And one more.
    And drips ...
    Period. Dot. Dot.
    uh...and then?
There is no more pompous punctuation mark than this ellipsis: '...' Even an exclamation mark is more modest! Nothing is more pretentious than to lay out its dots so enigmatically, big gestures of throwing dots like breadcrumbs to lure the gullible reading eyes conditioned to linearity into the trap of an inflated suggestion, its little dots lying on the floor like three dead black birds, feigning fixed laws where, arranged in juxtaposition, individual decisions lie...

How do we imagine the future: aleatory or determinate? As Pompeii, a death from nowhere that lifts one up forever, or as a tragic fall into a seething sea? But conservation turns out to be a trap, and the falling figures—dips and drops—are also dance poses. It seems as if the apocalypse is a wishful thinking of dissolution and annulment, longing for an end that is on the one hand predetermined, and on the other eruptive. As if the sudden fall were a long-anticipated fiction that could thus be avoided. Of course, it is more glamorous to be cast into a mold and preserved for all eternity, or to drop into the waiting arms of doom with the grace of a dying swan, than to decay slowly and gradually and unseen. Of course, it is obvious to indulge in the frothing acids of irony; the garish bile and the treacly morbid metabolism of melancholy. Of course, it's tempting to drift in the Infinity pool of the present until your fingertips have shriveled into raisins, just to admire the view of the sloping landscape. Of course, it's more convenient to resign—to mutter something apologetic and to lapse into corruption and individual-prepping—than to search for allies in the chaos of drifting language and melting vision.

When we land, will we run over blazing ground, save ourselves on smoldering tree stumps, or simply rush on forever? Or is there perhaps even the possibility of an abrupt reversal with a decisive turning point, a rising of the two following points—which until now have been pointing into the future—to a colon, which looks out at what is happening right now and not at what is happening in the threatening future?

As I take the wax out of the water with pointed fingers, it already has a shape, but it still seems malleable. I blow gently and can't fight the temptation to want to interpret the softly curved lines.

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Alexander Luke Burton

The Future is Degrowth, Not Apocalypse

> *Degrowth is not the crisis; capitalism is.*
> — Schmelzer, Vetter, and Vansintjan (2022, 21)

In our age of division and climate crisis, apocalypse can be read into many texts. Intentionally, unintentionally, or even by its deliberate rejection, these ends of days set the agenda. *The Future is Degrowth: A Guide to a World Beyond Capitalism* is an example of the third on this list. This book focuses on the toxic culture of capitalism and anthropogenic climate change, but strains to avoid the apocalypse; both as an aesthetic, and as an outcome from our growth-based trajectory. There are other books for the looming, karmic dread of contemporary collapse. Instead, Andrea Vetter, Matthias Schmelzer, and Aaron Vansintjan take the next step of presenting tangible solutions to the material and cultural problems that define our transformative era.

The Future is Degrowth is a substantial reworking of a previous German version by Vetter and Schmelzer, published in 2019 under the title *Degrowth/Postwachstum zur Einführung*. This amended version, the authors explain, has been substantially updated and is written for an international (English-speaking) audience. The authors have managed a three-part account of history, critiques of growth, and non-apocalyptic pathways away from our pressing present. The book is written as a reference point for discussing growth and degrowth amongst the English-speaking Left. It gives degrowth a constructive rather than destructive agenda, aimed at including lived struggles like rent and housing, care work, and everyday extractivism, breaking the book's own academic confines with a focus on doing.

The strategy and namesake of the book, degrowth, is presented as a holistic, multifaceted process combining economic transition with social

justice. Schmelzer, Vetter, and Vansintjan situate themselves in critical theory. Their work is less of a thought piece and more of an actionable manifesto. Indeed, *The Future is Degrowth* can be summarised as an argument for how a just transition from late-stage petro-capitalism is a real possibility. Eco-Marxism is used to demonstrate this chance, and its basis in existing scholarship. According to the authors, Eco-Marxism highlights the "material and ecological basis of any social system, and the way by which social metabolism fosters or disrupts natural cycles and metabolic exchanges, contributing to the dynamics of capitalist crisis" (Schmelzer, Vetter, and Vansintjan 2022, 85). With references not only to Marx but figures like Rosa Luxemburg and Antonio Gramsci, the authors' revolutionary precedents are not shied away from.

Readers new to degrowth are introduced to a menagerie of new terms, which both splash extra colour into the authors' arguments and reveal more of the background they are writing from. Three important examples are conviviality, social metabolism, and nowtopias. Conviviality is historically entwined with degrowth and refers to the art and practice of living together. Social metabolism is a Marxist concept referring to the flows of materials and energy between nature and society, and how these flows are governed and reproduced. Nowtopias are societal aims or outcomes which are adaptable and achievable. These examples illustrate how the book's theory reflects the authors' goals for enacting widespread social and material transformation, and how transformation is not limited to explicit apocalypticism.

Schmelzer, Vetter, and Vansintjan warn that "existing power structures shape even our visions of overcoming them" (2022, 180); reminding us that transformation itself is not neutral. They warn of technological solutions "indulging in the euphoria of expert-led planning, presenting utopia as a blueprint" (2022, 180) especially when it lacks the adaptability and achievability to make it a nowtopia. The choice to focus on the adaptable and achievable also explains the authors' choice to avoid the 'a' word, which is invisible in the same way a storm cloud is to those seeking shelter underneath it. In a way, we are beyond discussing apocalypse. We are living it.

Assumptions of a destructive apocalypse seem to frustrate the authors. They are hesitant to indulge in apocalyptic, collapse-premised language. The authors even call the fixation with environmental catastrophe "misanthropic" (2022, 175). This is significant because the authors do, however, envisage and advocate for widescale, transformative action. The aesthetic of destruction is avoided on the justification that it is nihilistic and disempowering. 'Apocalypse' is thus reduced to meaning an existential or spiritual disaster. This is interesting, as its broader meaning as a revelation,

transformation, and rebirth actually describes the authors' intentions well. *The Future is Degrowth* is an example of authors drawing from apocalypticism while avoiding its more overt tropes, in the attempt to make it more palatable for a practice-oriented audience.

The distinction between societal degrowth and societal collapse is central to the book. To make this distinction clear, Schmelzer, Vetter, and Vansintjan work to change degrowth's reputation as a stoked recession or policy of austerity. Degrowth is promoted as democratising, decentralising, feminist, anti-colonialist, and anti-racist. These priorities recentre the metrics of the economy (and society more broadly) on human needs rather than GDP growth. But *The Future is Degrowth* does not mislead readers into thinking there does not need to be a difficult rebirth in the global North. The loss of thoughtless consumption, connectivity, and global power is part of the (apocalyptic) revelation. This comes from a moral duty to the people of the global South, for whom climate crisis is a well-established, lived reality. In other words, we need more than solar panels. We need to transform how our lives are lived and organised.

The book's argument for transformation begins with the chapter "Economic growth," which explains how our measurements of progress and growth are products of recent history. "Critiques of growth" addresses the arguments which frame degrowth as anti-modern, privileged, and apolitical. "Degrowth visions" explains different versions of degrowth. "Pathways to degrowth" gives policy recommendations at the political level, while "Making degrowth real" promotes linking organised movements at the social level. Finally, "The future of degrowth" raises areas the authors see as underdeveloped in degrowth discourse. The authors discuss problems with power imbalances and overly privileged framings of degrowth which alienate marginalised groups. Schmelzer, Vetter, and Vansintjan also call out a trend of vagueness in how degrowth can be organised and carried out in a democratic way, which must be explicit for the equitable degrowth advocated in the book.

The Future is Degrowth is written as though degrowth is a term familiar to the reader. The authors' job then, is to connect this familiarity with social justice and free it from any of the mistaken, misled, or incomplete versions of degrowth that are emerging. Throughout the book the authors reverse critiques against degrowth in a way that is almost formulaic. One example reads "[d]egrowth is not against progress; rather, holding on to continuous economic growth undermines real progress" (2022, 22). The authors maintain the same humanist ideals as their critics. It is degrowth, they argue, that best upholds these ideals in our uncertain, changing future.

The authors describe a struggle taking place over degrowth, about who it serves, and the need for these humanistic ideals for degrowth to maintain its integrity. Defining and enacting degrowth is treated like a spiritual conflict over justice in our systems of consumption. This sought-after justice is simultaneously framed as social and ecological. *The Future is Degrowth* warns against a pretender disrupting this message in a way which, perhaps unintentionally, resembles the figure of the apocalyptic Antichrist in the Bible. This threat of a degrowth pretender is expressed as something to anticipate for the future, and a present danger today. Eco-fascism and the Far-Right are named as these pretenders or "contaminants" (2022, 76), because they separate social from ecological justice and thus stray from good degrowth. The pretender motif helps cement the relationship between *The Future is Degrowth* and eschatology.

The degrowth presented by the authors is a future-oriented call to action which is similar, yet distinct from its more 'misanthropic' colleagues, including deep adaptation (Bendell and Read 2021) and collapsology (Servigne and Stevens 2020). *The Future is Degrowth* combines academic style with occasionally irreverent language. The book functions both as a scholarly reference and an approachable introduction to social and ecological justice for the twenty-first century. This is significant as it reflects a core concern of the authors: that degrowth cannot be discussed within academia alone and should be part of a broader public discourse. As part of this concern, the authors are forthright about their claims and sources, and direct further reading through recommendations such as *Doughnut Economics* (2017) by Kate Raworth. The *Future is Degrowth* goes beyond a critique of growth by making its alternative palatable and inclusive.

> [A] critique of growth is not in itself forward-thinking. And indeed, it is possible that such a proposal may eventually be embraced by conservative governments that acknowledge impending ecological breakdown and a changed economic reality but that take advantage of this moment to maintain, and deepen, social hierarchies (2022, 171).

As the authors explain, they are writing for an oncoming future where our ecological challenges may heighten social hierarchies. Overpopulation is an example that catalyses controversy. The *Future of Degrowth* argues population control is the Far-Right and eco-fascist pretender corrupting degrowth. Schmelzer, Vetter, and Vansintjan explain how population control is a racist, anti-feminist expression of colonial North-South inequality and not a useful strategy for reducing CO2. It is fear from wealthy countries mobilised against poorer ones, despite immense disparity between

which countries pollute most. The authors seek to distance degrowth, or at least their version of degrowth, from these suggested controls. In this way, the authors are grappling for degrowth's soul. *The Future of Degrowth* at its core is the constructing of a degrowth canon and popular front to prepare readers for these kinds of debate. This isolates what the authors see as fascist attempts to absorb degrowth and remove the justice which makes good degrowth possible.

Schmelzer, Vetter, and Vansintjan discuss the near omnipresence of growth in our economic, political, and social systems. The authors' self-awareness borders on self-critique, as they hold themselves to account for their privileged relationship to degrowth. The way the authors characterise "growth subjects" is particularly significant. This term refers to how we are subjects in a growth paradigm, and are expected to idealise individualism, status, and personal assertiveness (2022, 111). Unlike apocalypse, a growth subject has no account of renewal. The authors brilliantly implicate academia and authorship in this paradigm. They point at the expectation to grow output, grow readership, grow expertise, and grow influence, and to do so from the finite resources of your time and energy. If you (inevitably) fall behind or experience burnout, this is treated as a failure. In other words, the problems of the growth paradigm are not just material, but cultural.

Further expanding our cultural awareness of degrowth, the authors summarise four common sources of growth critique from outside the degrowth movement. These are: C*onservative critiques of growth*, G*reen fascism*, A*nti-modernism*, and *Environmentalism of the rich*. Like the four horsemen, these movements differ from one another but, together and in our time of climate crisis, can be read as apocalyptic. These are the competitors to a socially just degrowth as degrowth goes mainstream. Combined with recurring topics like the green new deal, this book is written for our specific moment in history. This makes *The Future is Degrowth* both an important reading today, a significant snapshot of historical value, and a product of a larger eco-leftist political context.

Schmelzer, Vetter, and Vansintjan pre-empt many criticisms of degrowth, both pragmatic and scholarly. In an example of the latter, the historical boogeymen Thomas Malthus—an eighteenth-century philosopher associated with the overpopulation debate—is raised and argued to be specifically not part of the degrowth agenda (2022, 129). Once again, potential critiques are inverted as the authors argue that it is in fact Malthus and his followers that are stuck in the mindset of growth. The authors make these arguments with urgency. *The Future is Degrowth*'s topic of existential survival, expressed through action-oriented critical theory, and

without the energy release valve of explicit apocalypticism, has left an important impression on the book's style. The authors demonstrate the arguments for degrowth with the tenacity and energy of a live debate.

The authors have written a practical, ideological guidebook. They have earnestly tried to create something that may be considered non-apocalyptic, or even anti-apocalyptic by their understanding of the term. Indeed, they succeed in separating themselves from the catastrophism and nihilistic clichés of traditional apocalypticism. However, the need for a practical guide for manoeuvring mass change and ideological divisions is itself alarming and resonates with our current sense of upheaval. Maybe *The Future is Degrowth* has something in common with the post-apocalyptic, where revelations of the end times have already been revealed. The esoteric has been succeeded by the material. Climate change is no longer a portent of the future, but a process underway. This book is not a warning. It is about what parts of today should survive into tomorrow.

Schmelzer, Vetter, and Vansintjan walk a scholarly field which is akin to a tightrope, falling neither into the disaster zeitgeist on their Left or the hands-off non-committal slogans on their Right. The socio-material failures of our capitalist system are well defined in *The Future is Degrowth*, and so are the solutions. While it will take the reassembling of our social world, the authors maintain a commitment to significant, measurable, difficult, action, precluding nihilistic pessimism or techno-solution optimism. Whether we call it apocalyptic or not, this is the planned, recentring upheaval being advocated for.

The book is a ferry into the theory of degrowth; not as easy as a bridge, but worth it if taken with a good pilot at the helm. Leftist scholars wanting to familiarise themselves with degrowth would be in their element with *The Future is Degrowth*. Teachers and lecturers among us could raise many of its ideas in the classroom, and all readers could consider their own relationship to the growth paradigm being critiqued. For those who already overlap social justice with a break from models of linear growth, *The Future is Degrowth* will be familiar. Its greatest strength is as a popular signal that the sanctity of growth is tarnishing, and that advocating apocalyptic change does not require a flippant aesthetic of destruction:

> Degrowth is not a blueprint that needs to be followed. Rather, it is an invitation, a broad set of principles and ideas, a path whose twists and turns have yet to be taken. We hope that we have convinced you that degrowth is not just a good, timely, and necessary idea, but one that could, in fact, really work (2022, 283).

As the authors explain, *The Future is Degrowth* makes no attempt at overhauling post-capitalist thought or presenting a one-size fits all blueprint. They do, however, present post-capitalism through an actionable narrative. Incorporating social justice and repoliticising degrowth helps bring the concept out of academia and into the public. An actionable degrowth is underscored by framing it as a process with multiple priorities and structures. It is not a single goal to be started and then finished with. Like apocalypse, in a way, degrowth is simultaneously final and cyclical, future and past.

For a book that does not consistently mention societal collapse until the penultimate chapter, there are key concerns in apocalyptic discourse throughout *The Future is Degrowth*. Revelations and transformation are almost assumed, while collapse from the climate crisis is treated like a choice instead of an inevitability. Other theorists may disagree, but to Schmelzer, Vetter, and Vansintjan there is a clear danger in overemphasising a doomist position, or using doomist language. Unequal consequences from the climate crisis, with our growth fixation as the culprit, are the target for something other than apocalyptic theory. If you will allow me to say, I believe *The Future is Degrowth* is a book about apocalyptic practice. In the time to come, and already, we might see a lot more from this nexus of apocalyptic practice and climate change.

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Michael Dunn

Life in Plastic: It's not Fantastic

Synthetic Entanglements in Heather Davis's *Plastic Matter* (2022)

Rather than declining, plastic production is set to double by 2040 and although it feels like an age since a plastic 'turtle strangler' was spotted in a supermarket, 2022 marks the year microplastics were, for the very first time, found in human blood. In 2020, two years before this startling discovery, it was ascertained that microplastics were found in human organs. Not only is plastic commodification commonplace in almost all reaches of human life, but we, ourselves, are now partially and permanently plastic. Plastic isn't going anywhere anytime soon and not only because plastics, which eventually become micro- and nano-plastics, never truly disappear and break down, but also because of improper distribution and disposal as well as an excessive obsession with corporate profit margins and production. While it may seem that minimalistic and micro-consumerist changes are being made, the intense acceleration of plastic production incentivised by fracking booms, as well as the absurd amount of plastic left behind in our oceans and seas, represented most aptly and uncannily by the 48,000 tons of so-called 'ghost nets,' continue to show us that plastic is a symbol and reminder that all places of this planet have been irreversibly tainted.

Heather Davis's 2022 *Plastic Matter* is, then, in the face of these oddities and absurdities, a timely endeavour offering insights into our state of synthetic sentience in the Anthropocene. In the same way that Donna J. Haraway has offered us ways to reconfigure kinmaking and our relation to the natural 'non-human' world in *Staying with the Trouble* (2016), Davis suggests that the "queer futures of plastic matter bump and crash against its inheritances and transmissions, churning through the violence of settler colonial extraction, creating unexpected openings and

new relations" (2022, 103). These new relations, however, are explored via what Davis calls complicated inheritances; legacies of loss and loathing that must be unsettled. While having worked extensively on decolonising the Anthropocene (2017) previously with co-author Zoe Todd, as well as extractivism (2019), the shift in the work of Heather Davis to focusing on the intricately interwoven similitude of queer ecologies, plasticity, matter, and, as she states, "the creation of kin through all the novel microorganisms that plastic is birthing, offer[ing] ways of living that are more implicated, enmeshed, and earthly, working against some of the universalizing logics that helped create plastic in the first place," is a novel approach to making sense of the 'Anthropocene' (2022, 6).

To illustrate plastics omnipresence, Davis chooses to first explore visual artworks that deal with plastic entanglements of the everyday while still focusing specifically on the communities dealing with plastic waste pollution. In doing so, Davis suggests that we need to move closer to this tainted chemical product, as well as its discontents, for sake of accountability, creativity, and enmeshment. In this way, plastic for Davis can actually offer up surprisingly "earthly lessons" with which to traverse the ecological crisis (2022, 9). From the first days of our celluloid histories, plastics don't merely replace they also create newness and thus further a bourgeois classism defined by painfully placid products; ones that nevertheless come into being because of a problematic understanding to nature and those seen as non-human. In this regard, Davis creates analogies rather than metaphors to point to the elephant in the room: how extractivism links both colonialism (and its extensions of systemic racism and structural violence) and climate change. With a heavy nod to Max Liboiron's *Pollution is Colonialism* (2021), Davis draws us deeper into the rabbit hole of "capitalism [which] itself is able to morph while not fundamentally questioning its founding premises in either antiblackness or plasticity" (2022, 26). While Liboiron focuses on scales of action that address plastics violence, purity activism as a scalar mismatch, and land relationships to explore ways of being in the world with a view to the larger picture of various kinds of pollution (2021, 101–111), Davis zooms in on how with plastics "[f]or the first time, matter could be manipulated at the molecular level" (2022, 29) and how said chemical manipulation creates cautionary but ultimately celebratory expressions of the 'human': "the queering of the body should be understood as opening on to new, and ecological, possibilities rather than reasserting a threatened heteronormative configuration of sex/gender" (2022, 87). Davis does, however, see the cognitive dissonance of allowing while disavowing when she asks the difficult question: "how to celebrate, socially and ecologically, the difference of these queer bodily formations

and also hold companies accountable for the harms that they are dispersing, as often these harms fall on the bodies of Black, Indigenous, and poor communities" (2022, 89). Although these questions aren't always easy, they are incredibly necessary argues Davis.

Through a combination of biographical exploration and incisive analysis, Davis asks a further uncomfortable question of how relevant are 'we' to the natural world as well as how are 'we' to make sense of the synthetic, plastic world that 'we' have created and are now part of; especially when the "proliferation of plastics is now driving evolutionary processes" (2022, 82). Offering us a new and novel perspective of plastic and its associated bacteria as "bastard children" (2022, 82), i.e. substances that will most likely outlive us, Davis explores how these so-called synthetic progeny endanger the already problematic figure of the future child. Rather than expanding on a pressing present we continue to "uphold an economic voraciousness that defies all logic" when "[t]he child stands for resistance to change, through fantasies of enclosure" (2022, 91). By exploring, in a similar vein to Edelman (2004), the idea that children act as a metonymical enticement for a future that is ostensibly a continuation of conservatism rather than focusing on structural violence, Davis alludes to another kind of denial: the climate crisis denial. Here, she does not talk about the regular discourses of delay or climate change denialism but, rather, a kind of commonplace denial "both at the policy level and in everyday habits of consumption and transportation" (2022, 91). EasyJet's latest brand campaign of 'nextGen Sustainability,' a promise to the 'children' of the future even while admitting it is not a long-term solution as there is no sustainable way to fly, is testament to quick fix consumerist greenwashing's continued attempts to circumvent the systemic problem of pollution and the "responsibility of petrocapitalism for the extermination of one world while another is being birthed" (2022, 95).

In concurrence with the important and continued critique of the Anthropocene's universalistic ignorance undertaken by scholars such as Haraway (2016), Liboiron (2021), and Ferdinand (2021) to name just a few, Davis makes it clear that plastic is an often-overlooked aspect of revealing the inherently race oriented prejudices of petrochemical capitalism and consumerism. Plastic as an utterly banal substance can actually help us explore matter manipulation under techno capitalism as well as the entanglement between everyday plastic products and more sinister finite resources such as oil or coal. Davis offers up readers an eye-opening avenue to explore "the ways in which fossil fuels have infiltrated almost every aspect of our daily lives, most intimately through plastic, and what this tells us about Western assumptions regarding matter and material-

ity" (2022, 2). No plastic product is untainted by the darker sides of petro-chemical capitalism. Writing as early as 2011, Rob Nixon has already suggested that "[f]or some eighty years, oil has been responsible for more of America's international entanglements and anxieties than any other industry" (72). It is precisely these ecologically uncanny entanglements that looking at plastic — as the underbelly of the oil industry — furthers and not only as an American construct but as a worldwide endeavour that we must face. The intensity and continued acceleration of plastic transference reveals even more potent questions of consent when landfills are opened up by historically colonial powers and "plastic is imprinted with the colonial logics of dissociation, dislocation, denial, and universality, reproducing itself without regard for local cultures or ecologies" (2022, 5). Davis argues that plastic functions under the same logics as colonialism; whereby largely racialised and poor communities and peoples who are neither answerable for plastic's emergence nor profiting from it are the highest percentage of people dealing with long term illnesses and intergenerational effects of plastic pollution.

That being said, it's unknown just exactly how harmful plastics are at this stage and this is possibly another reason for its continued apathetic acceptance and use across the board from supermarket products and packaging to active outdoor wear, and almost all skincare and hair products. Even if we don't know precisely how harmful plastics are for us, especially in the long term, Davis demands we think with these products through the commonplace apocalypse of environmental devastation that plastics as a very specific industry entangled in fossil fuels create. "They are reconfiguring the atmosphere, biosphere, and hydrosphere," she states, "so it seems imperative to think with this material" (2022, 9).

It's hard to imagine such a laborious material as plastics as ambassadors of an 'apocalypse'. However, the slow yet violent decay caused by climate change is inherently intertwined with plastics as the everyday, household side of the petrochemical industry. In the way that europop of the 90s replicated a bastardised and cliched, highly sexualised version of Motown's best-known riffs and licks, plastic assimilates; from the toys of our childhood to the towering trash of a single use, throwaway culture, plastic is part of our very being which makes it all the more uncanny in both its more obvious pollution washing ashore in waves and its silent ingestion into our system (it's been ascertained that we ingest a credit card worth of microplastics a week). Although we are partially repulsed by plastic products, many of us in neoliberal, Western societies continue to be attracted to their ability, through packaging, to mute our murderous relationship to animals and the taboo of death. "[W]e," says Davis,

"are also attracted to it, and especially to its promises of a clean, sanitary, sterilized life" (2022, 8). And although life in plastic is anything but fantastic, it has, at least, given us ways to rethink the world beyond ourselves and heteronormativity, as well as the necessity to dismantle commonplace petrochemical capitalism. Ultimately, Davis's timely attempt to bring plastic, synthetic matter and its manipulation to the fore succeeds in revealing our "entanglements, inheritances, and enmeshments" to these new forms (2022, 101). Despite the repulsion, acceptance, and intrigue of plastics, as well as matter manipulation in more general terms, plastic is unavoidable and irreversible in its reach. The revelatory aspect of apocalypse is reflected in addressing chemically induced ecocide but, rather, with a focus on responsibility for the non-human. However, the revelatory understanding of queer matter is where the similitude stops. "For nihilistic, apocalyptic, or techno-utopian versions of the future," Davis states, "will only lead us to the continued reproduction of the social order" (2022, 101) which is already so strictly focused on binaries and biology as well as discriminatory exclusions and violent suffering. While Davis is refreshingly open about the influence that Edelman's antifuturity has made on her own research, she rejects his so-called "apocalyptic nihilism" (2022, 96). Davis, rather, shifts the argument into new directions that bear battling with while unearthing the political questions of our turbulent time: who suffers and who regulates and controls said suffering and, of most importance to the future of plastic and its role as an area of critical research, "how to celebrate the queering of the social order while resisting the destruction and oppression of life forms, including queer ones?" (2022, 95).

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The journal explores the many sides of apocalyptic thinking in order to investigate an archive of the apocalyptic imaginary and to explore experiences of apocalypse and post-apocalypse as they unsettle the past, present, and future. Looking for thought-provoking voices and diverse perspectives invested in the end of worlds, we highlight scholarship from a broad range of fields that champions the potential of critical thinking and cultural analysis in the humanities, social-, and cultural science as an imaginative and (potentially) transformative force. The aim is to actively explore the apocalypse as a figure of thought (a practice, relationship, form, experience, aesthetic, or theme) in order to grapple with the cultural politics of disaster, catastrophe, and the (up)ending of worlds.