

Perspectives on Ecocriticism

Perspectives on Ecocriticism:

Local Beginnings, Global Echoes

Edited by

Ingemar Haag,
Karin Molander Danielsson,
Marie Öhman
and Thorsten Pöplow

Cambridge
Scholars
Publishing



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This book first published 2019

Cambridge Scholars Publishing

Lady Stephenson Library, Newcastle upon Tyne, NE6 2PA, UK

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

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ISBN (10): 1-5275-3200-3

ISBN (13): 978-1-5275-3200-7

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INTRODUCTION

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KARIN MOLANDER DANIELSSON,
MARIE ÖHMAN AND THORSTEN PÄPLOW

This collection of articles and essays originated in the conference “Ecocriticism in the Nordic Countries: Yesterday, Today, Tomorrow,” held in Västerås, Sweden, in May 2017. Initially, the conference was an attempt to survey ecocritical activities in the Nordic countries, occasioned by the ten-year anniversary of the foundation of Ecocritical Forum, a research group at Mälardalen University. Ultimately, it turned into something much less limited: a lively exchange of ideas that transcended the Nordic boundaries, involving scholars from other European countries and the United States. It may not be an overstatement to claim that this expansion from the local to the global mirrors the subject of the conference: ecocriticism.

This dynamic is encouraging in the face of rapidly increasing effects of climate change. The distribution of knowledge on a global scale may, after all, be instrumental in our efforts to come to terms with the problems we are facing. This volume is our contribution to an area of research that is multidisciplinary and complex, and we anticipate that it will be relevant for readers from many academic contexts both in the Nordic countries and internationally.

Arising from various subjects and theoretical positions, the chapters in this volume engage in global ecocritical issues, such as the Anthropocene, materialism, dark ecology, animal studies, sustainability in education, and civilizational critique. An international cluster of scholars has contributed chapters on such varied topics as visual media, educational design, and literature from various language areas. Although the essays and articles have been grouped thematically, they inform each other and their voices and insights echo and connect across division boundaries, just like ecocriticism itself.

The first thematic section “The Anthropocene – Visions and Visualizations” brings together two essays discussing discourses on and visual representations

of various phenomena related to the human centered geological period declared as the Anthropocene. In her essay “Fire and Ice: Thinking Film, Climate Change, and (Stealth) Environmental Humanities with Paolo Sorrentino’s *Youth*” Elena Past traces the elemental power of fire and ice in Sorrentino’s film *Youth* (2015) to reveal how such a reading can trace anxieties about the future of the planet, climate change, and cinema’s possible role in a climate-changed future. She examines the back-and-forth between elemental, social, and political forces, focusing on the “fires that fuel the cinematic machine,” and the rapidly melting ice of the Alpine glaciers that shaped the landscapes featured in the film. The essay is an experiment in “stealth environmentalism,” and it concludes by suggesting that we need quirky, creative readings of media and of the world in order to maintain focus on the complex, polarizing problem of climate change. In “Rhetoric and imagery of the Anthropocene” Björn Billing approaches the Anthropocene as a culturally mediated discourse of ideological significance. By focusing on the frequently used phrase, “welcome to the Anthropocene,” and a selection of visual representations, Billing demonstrates how an ecocritical perspective can illuminate the contested concept of the Anthropocene.

The first two articles in the section “Matter and Place—Ecocriticism and the Nordic Novel” exemplify how an ecocritical reading can add to the prevailing understanding of a literary text, while also addressing environmental concerns. It is often assumed that Nordic people have a unique emotional and sensitive relationship to nature: “Swedes often respond to nature in ways that, to non-Nordics, seem eccentric or downright weird,” Anna Paterson asserts in *The Translator as Writer*, suggesting that nature writing is as much an expression of nationality as of an individual.¹ While questioning such slightly hasty assumptions, Hennig et al. note that “constructing and telling an idealizing narrative of Nordic greenness” might put pressure on people “to at least in part achieve this ideal in reality.”² Discussing representations of nature, and pointing out the importance of nature in the work of an individual author, could thus possibly enhance the interest in nature per se. In “Nature, Literary Ecology and Changed Desire in Aksel Sandemose’s *The Seasons*,” Anna Forssberg points out that although Sandemose’s ideological criticism cannot strictly be described as

¹ Anna Paterson, “The Alien Made Known: The Compact of Writer and Translator in Kerstin Ekman’s Writing about Nature,” in *The Translator as Writer*, eds. Susan Basnett, Peter Bush (London, New York: Continuum, 2006), 150.

² Reinhard Hennig, Anna-Karin Jonasson, and Peter Degerman, eds., *Nordic Narratives of Nature and the Environment: Ecocritical Approaches to Northern European Literatures and Cultures* (Lanham: Lexington Books, 2018), 1–2.

ecocritical, his recurrent representations of nature present a critique of civilization. Understanding *The Seasons*, and the way nature functions in this work, Forssberg argues, calls for new and non-Lacanian ways of theorizing desire. In the article “Is All That Is New Therefore Good? The Swedish Author Lars Gyllensten and Ecocritical Tendencies of Today” Camilla Brudin Borg addresses the problematic situation in the Anthropocene with the aid of the 20th century Swedish author Lars Gyllensten’s general ideas of the function of critique (*iconoclasm*) and creativity (*iconoplasm*).

Other examples of Nordic novels are discussed in the following two articles in this section which trace reflections of materialist thought in Swedish novels. During the last few decades, a new conceptualization of materiality has become a fruitful means of theorizing and discussing environmental concerns and human/non-human relationships. Theories and developments within the natural as well as social sciences, technology, and the humanities have placed new focus and significance on matter, in ways that undermine the conceptual opposition between matter and thought, body and mind, and force us to move beyond the humanist traditions. Scholars such as Karen Barad have described how processes and relations rather than properties are decisive for agency, thus turning away from a Cartesian essentialist view.³ Others have drawn attention to the vitality of material objects by suggesting that they act in assembled ways without human participation or initiative, or that agency emerges as the effect of ad hoc configurations of human and nonhuman forces.⁴ In “Water as Motif, Metaphor and Matter in Kerstin Ekman’s Novel *The Spring*,” AnnaCarin Billing discusses water on three different levels in the text: the story, where the water question is connected to the power structures of a patriarchal society, on a discursive level where the metaphorical contrast between different waters activates ideas of water as impure or pure, as possession or respected resource, and, lastly, on a material level, where water is examined as matter on its own terms and with its own agency. Material agency has been described as expressed by narratives. Matter is understood as “storied”, or “a corporeal palimpsest in which stories are inscribed,” as Serenella

³ Karen Barad, *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* (Durham, London: Duke University Press, 2007), 132–188.

⁴ Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham, London: Duke University Press, 2010), 1–20.

Iovino has put it.⁵ This way of understanding matter is discussed in the article “More than Sand? Landscape and Movement in Dagerman’s *De dömdas ö* (*Island of the Doomed*),” in which Johanna Lindbo explores the possibilities of storied matter in the classic novel by Stig Dagerman. The readings illuminate how different species and organic elements on a fictive island together create unexpected narratives of becoming.

Ecocriticism is often assumed to be green, as can be noted in a number of titles of books (*Green Shakespeare*, *Postcolonial Green*), articles (“Green(ing) English”), and at least one journal such as *Green Letters*.⁶ The foundation for this assumption has been an association of ecology and ecocriticism with pastoral and romantic representations of certain kinds of nature: the distant, pristine, and revered pastures and forests, rather than the urban rivers, the farm factories, or the cityscapes. This assumption, which has positioned humans as separate from the rest of nature, is now being challenged, however, from several directions. One of them is the recent focus on materiality, discussed in the previous section; another is the insistence, by Morton, Cohen and others, on a significantly more diverse, less pretty, and distinctly darker view of ecology and its representations. In the section titled “Dark Ecology and the Non-Human—Theory and Poetry” two articles discuss this view. In the opening article of this section, “The Dark Turn,” Erik van Ooijen offers a genealogy of a turn from the romantic green, via Arne Naess’s dark green *deep ecology* and the *Gaia hypothesis*—characterized by its obvious tendency toward an anti-humanist stance—towards Timothy Morton’s *dark ecology*, and Scott Wilson’s *melancology*, informed by black metal theory. In the following article, titled “‘The Overwhelming Indifference of Ingen.’ On the Dark Ecopoetics of Aase Berg and Johannes Heldén,” Sofia Roberg relates the dark turn to ecopoetry, and gives two examples of contemporary works of poetry that voice distinct versions of dark ecology. The question she explores is how contemporary poetry contributes to the development of critical ecological thinking. According to Roberg, ecopoetry goes beyond green environments, and describes relations between organisms and their environments in all

⁵ Serenella Iovino, “Stories from the Thick of Things: Introducing Material Ecocriticism,” *Interdisciplinary Studies in Literature and Environment* (ISLE) 19, no. 3 (Summer 2012): 451.

⁶ Gabriel Egan, *Green Shakespeare: From Ecopolitics to Ecocriticism* (Abingdon: Routledge, 2006); Bonnie Roos and Alex Hunt, eds., *Postcolonial Green: Environmental Politics and World Narratives* (Charlottesville: University of Virginia Press, 2010); Heather Bruce, “Green(ing) English: Voices Howling in the Wilderness?” *English Journal* 100, no. 3 (2011): 12–26; ASLE-UKI, ed., *Green Letters: Studies in Ecocriticism*, 2000—.

biotopes. Roberg argues that ecopoetry has the potential to bridge the notorious nature-culture divide.

The dark turn, in all its manifestations, is notably anti-anthropocentric, a stance which relates it to another turn in the humanities and the social sciences. *The animal turn*, although begun around the turn of the century, became noticeable about ten years ago with publications such as Harriet Ritvo's "On The Animal Turn," and an issue of PMLA that was devoted to the theory and methodology of animal studies.⁷ Today the study of animals in a cultural context is as prolific and diversified as the study of inanimate nature, and is informed by many different scientific fields and strands of theory. Amelie Björck's chapter "Discerning the Ghostly Voices of Animals" utilizes Elizabeth Freeman's term chrononormativity which refers to the normative use of time to organize individual human bodies toward maximum productivity. Björck's close readings of poems by Ted Hughes and Sonja Åkesson reveal the ghostly voices of farmed animals, slaughtered to become meat. By lingering or returning instead of dying and disappearing, these undead literary animals—a pig and a horse—arrest the chrononormative progression of both meat production and storytelling. When time is undone other futures may be possible.

Education and pedagogy have had a place within the ecocritical movement from its earliest beginnings. The fourth section "Education—Sustainability in Course Design" includes two articles that show how ecocriticism could be put into practice in higher education in a Swedish context. Emile Bellewes' article "The Use of Educational Design Research for the Application of Ecocritical Discourse Analysis to an English Teacher Degree Programme" details a teacher research project investigating the implementation of pro-environmental critical discourse analysis to the English teacher degree programme at Linköping University, Sweden. The aim of the implementation is to develop in future English teachers a critical literacy that addresses linguistically constructed, ecologically negative bias in texts. In the article "Hållbarhet i språkutbildning" ["Sustainability in language education"] Petra Platen describes experiences from developing and implementing courses with a distinct sustainability focus in German language education, concentrating on the relationships between nature and culture, as well as between humans and nature, in order to promote sustainable human actions.

⁷ Harriet Ritvo, "On the Animal Turn," *Daedalus*, 136, no. 4 (Fall 2007): 118–22; "Animal Studies" (Theories and Methodologies), *PMLA* 124, no. 2 (March 2009): 472–563.

In the final section, “Civilizational Critique—Modernity and Apocalypse,” ecocriticism is related to concepts like modernity, decay, apocalypse, and, not least, to the question whether this theoretical perspective can make a difference with respect to the environmental challenges that we face. Adrian Tait’s essay “When the Map Appears More Real Than the Land” revolves around the now neglected works of D. H. Lawrence which present a powerful critique both of industrial modernity and the liberal values and political formations (such as democracy) that in Lawrence’s controversial view collude with it. Radical, committed, and contrary, Lawrence’s works speak to contemporary ecocriticism, which, rooted in liberal humanism, may itself be trapped in ways of thinking that limits its horizon. Emanuela Ettorre’s essay “Deconstructing Natural and Post-Natural Binaries” demonstrates how two Victorian writers like Thomas Hardy and George Gissing were as disenchanted by the illusion of the rural idyll as they were thoroughly unconvinced by the supposed freedoms of urbanity. Both Hardy’s rural topology and Gissing’s urban microcosm exemplify the vision of a post-Darwinian environment as a place of unfitness, characterized by degeneration and decay. What the two Victorian authors suggest is that in both the country and the city darkness walks with us: modern life and urbanization have simply concentrated ‘unfitness and debasement’; they have done nothing more than sharpen it, and accelerate its darkest consequences. Andreas Hedberg’s essay “A Living Home” deals with the critique of modernity in Swedish novels published shortly after 1900. The essay shows how this critique bears resemblance to contemporary ecocritical and/or posthuman visions concerning Man’s relation to Nature and the non-human. Contrary to the novels by Lawrence, Hardy and Gissing, these Swedish novels all share a pastoral vision, in which man lives in harmony with nature, but a vision in which at least parts of the modern project are affirmed.

In Rut Elliot Blomqvist’s essay “The Ecocriticism of the Future,” ecocriticism itself is at stake. According to Blomqvist, ecocriticism as an academic discipline has to a great extent become abstract, intellectual and descriptive; it has withdrawn from the very materiality of the world. Blomqvist maintains that even though ecocritical analyses identify the political structures that underlie the effects of climate change, they will not take action; they are, rather, the embodiments of the very system they call into question. Blomqvist pleads for the necessity of political *action*, in order to bridge the abyss that separates mankind from the environment, and demonstrates how this system-changing action is at work in environmentalist popular culture.

The final essay in this section and this book, Ingemar Haag's "The End—of What? The Beginning—of What?" deals with representations of the apocalypse. The modern, secular apocalypse centres upon the transformation of body and matter. Haag's essay discusses the re-figuration of matter in Mary Shelley's *The Last Man*, Kurt Vonnegut's *Galápagos* and Margaret Atwood's *Oryx and Crake*. What will become of *us*? In the end, there is (almost) no "us;" mankind is transformed, configured, and matter takes new shapes. Still, in these literary representations, man is desperately trying to form archives and recollect the achievements of the human race, Haag argues. The apocalypse becomes in itself a monument to man that we have erected, a monument that might stand as a sign of rationality as well as of failure; reason has been the source of our glory, and might be the cause of our defeat.

But we do not have to define ourselves as moderns; like Bruno Latour, we can declare that modernity is a parenthesis and that we have the power to liberate ourselves from the complacency that has prevented us from acting. Ecocriticism can make a difference by making us aware of and reformulating our position in the world; it may enable us to attach ourselves to the world that modern man separated himself from. This collection of essays is our modest but serious contribution to the consolidation of that awareness raising power of ecocriticism.

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**THE ANTHROPOCENE—
VISIONS AND VISUALIZATIONS**

FIRE AND ICE: THINKING FILM, CLIMATE CHANGE, AND (STEALTH) ENVIRONMENTAL HUMANITIES WITH PAOLO SORRENTINO'S *YOUTH* (2015)¹

ELENA PAST

Nothing feels as urgent or as perpetually out-of-date as writing about climate change. As I wrote these lines, a Russian tanker carrying liquefied natural gas made record time through the Arctic Passage, completing the voyage from Norway to South Korea without needing an icebreaking ship to accompany it.² In Italy, my intellectual home, the slopes of Vesuvius burned to a crisp in the summer of 2017, but not because of volcanic fires. Although arson set the National Park on the volcano's slopes to blaze, the conflagrations spread because of the severe drought conditions and heat that most scientists attribute to climate change.³ This is a decade—maybe a generation—in which to frame human existence by thinking with fire and ice.

This essay proposes strategies for reading climate change in texts that are not explicitly environmental, focusing on the elemental forces of fire and ice as signal actors in the Anthropocene. I unravel how the dramatic narrative and visual power of fire and ice can help us understand matter's agency, one of the key steps vital materialists, posthumanists, and material

¹ My thanks to the engaged interlocutors at the conference “Ecocriticism in The Nordic Countries – Yesterday, Today, Tomorrow” for their insightful comments, to the anonymous reader of this manuscript in the editorial stage, and to Serenella Iovino for her excellent feedback.

² Patrick Barkham, “Russian Tanker Sails Through Arctic Without Icebreaker for First Time,” *The Guardian*, August 24, 2017, <https://www.theguardian.com/environment/2017/aug/24/russian-tanker-sails-arctic-without-icebreaker-first-time>.

³ For detailed information about drought conditions in Italy in 2017, see Franco Desiato *et al*, *Gli indicatori del CLIMA in Italia nel 2017* (Rome: Istituto Superiore per la Protezione e la Ricerca Ambientale, 2018).

ecocritics say is necessary to understanding our entanglement in a world that exceeds the human. Examining Paolo Sorrentino's 2015 film *Youth*, however, I suggest that it is the disappearance of fire and ice that challenges our contemporary imaginations, since the fires that fuel internal combustion and melting glaciers are most often processes out of our sightlines, and thus too easily pushed out of mind. Facing climate change requires us to keep fire and ice intellectually present even when they are out of the frame. For film scholars, this means looking off screen to the fires that fuel the cinematic machine and to the glacial advances and retreats that shape the landscapes of location shoots. It also means working with films, like *Youth*, that play with these forces in ways that compel our aesthetic and narrative sensibilities. In other words, we need the imaginative critical practices and teaching strategies of the environmental humanities to help us open unexpected ways—and unanticipated places—to think climate change.

Fire and Ice: Burning Questions in the Anthropocene

Robert Frost's famous poem, published in December 1920 in *Harper's Magazine*, memorably evokes the apocalyptic, world-unmaking powers of fire and ice:

Some say the world will end in fire,
Some say in ice.
From what I've tasted of desire
I hold with those who favor fire.
But if it had to perish twice,
I think I know enough of hate
To say that for destruction ice
Is also great
And would suffice.⁴

Frost's fire and ice are formidable anthropic, affective forces capable of destroying the world, but the poem's ironic parlor game ("what do *you* think would be most effective in destroying the planet?") boldly undermines the significance of their elemental might. No one asks, in "Fire and Ice," whether we should care that the world is ending. Rather, fire and ice should both work just fine: the poetic "I," who knows how best the planet might perish, addresses apocalypse with chilling casualness.

⁴ Robert Frost, "Fire and Ice," in *The Road Not Taken: An Introduction to Robert Frost*, ed. Louis Untermeyer (New York: Henry Holt, 1951), 259.

A new materialist approach might see in this poem, though, that fire and ice are also active agents: they are, after all, the elemental forces at the very heart of planetary life. Massive, perhaps total glaciations alternated with cycles of warming, often driven by volcanism, to make and unmake the world time after time. Bernd Herzogenrath eloquently summarizes a geological history of fire and ice:

Starting from the poles, the ice crept through the oceans, shock-freezing them, and eventually also covered the land. Underwater volcanoes, after millions of years under the ice, eventually made their gases break through the frost cover, and after some centuries turned the atmosphere into a hothouse, or a fiery furnace. Out of fire and ice—according to [geologist Paul] Hoffmann—out of catastrophic events, complex life as we know it today emerged.⁵

Fire and ice thus push “apocalypse” toward its etymological meaning as “revelation,” disclosing the fact that the powerful energies that enable life can also extinguish it. Today, about 10% of the earth is “permanently” covered in ice,⁶ but the retreat of many glaciers and the melting of sea ice, accelerated dramatically by anthropogenic fires burning fossil fuels, mean that fire and ice are of central concern in environmental discussions.

Read a bit anachronistically, “Fire and Ice” thus advances a succinct definition of the Anthropocene, where a strangely flippant human poetic subject seems intent on disregarding the magnitude of the planetary forces at work. If the poet is critical of the blasé tone of the poetic “I,” then perhaps Frost was gesturing toward something that environmental humanists know: namely, that overestimating, or overemphasizing, the centrality of human experience on the planet has ironically led us into the epoch when our species is now a pivotal geological force, and when we also risk being one of its victims. As Noel Castree asserts, humanity’s new status as a geological planetary game-changer is “either shocking or hugely flattering, depending on one’s perspective,” since it assigns humans a “collective power over the non-human world.”⁷ In the twenty-first century, it is critical to resist the temptation to anthropocentric hubris and focus on the lively material agency of the elements in Frost’s title. This is a first step towards engaging in what Jane Bennett calls a “dogged resistance to anthropocentrism,”

⁵ Bernd Herzogenrath, “White,” in *Prismatic Ecology: Ecotheory beyond Green*, ed. Jeffrey Jerome Cohen (Minneapolis: University of Minnesota Press, 2013), 6–7.

⁶ *Ibid.*, 6.

⁷ Noel Castree, “The Anthropocene and the Environmental Humanities: Extending the Conversation,” *Environmental Humanities* 5 (2014): 235.

and it acknowledges, as she says we must, that “the locus of agency is always a human-nonhuman working group.”⁸ In the Anthropocene, and when thinking about climate change, this kind of reading strategy is a survival strategy.

For cinema studies, such a reading strategy widens our understanding of film to apprehend the screen more holistically, not just as a vehicle for human stories, desire, and agency but also as the site of encounter of more-than-human actors of all kinds. It situates cinema in a longer temporal frame to consider the time of production, post-production, the pre-life of a film as extractive practice and resource, and its post-life as a celluloid or digital product, or as e-waste. In other words, such an environmentally progressive film criticism roams around the compact, relatively discrete experience of space-time that we often think of as “a film,” to place it contextually in a broad spider web of relations. In the same way that the field of animal studies locates the human firmly *within* the realm of the animal, or transcorporeal feminism shows that the world outside is actually always already within our bodies, ecocinema studies urges us to understand cinema as embedded in and continuous with the world. In this philosophical framework, all of the world, whether assembled in a factory or molded by winds and waters, is the environment; and all art is environmental. Stephen Rust and Salma Monani argue that film is in fact: “a form of negotiation, a mediation that is itself ecologically placed as it consumes the entangled world around it, and in turn, is itself consumed.”⁹

***Youth* and the Pyric Regime of Cinema**

Youth, by Neapolitan director Paolo Sorrentino, can be succinctly outlined as the story of two friends. Retired orchestra conductor Fred Ballinger (Michael Caine) and his best friend, the well-known film director Mick Boyle (Harvey Keitel), vacation at a mountain spa resort in Switzerland. Fred and Mick dine together, walk up and down a gravel road flanked by Alpine prairies, socialize with the hotel’s eclectic, international clientele, visit doctors and massage therapists, and muse about aging. Fred, a hypochondriac, refuses to take up the baton to perform his most beloved orchestral piece for the Queen of England; Mick cannot figure out how to

⁸ Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham, Duke UP, 2010), xvi, xvii.

⁹ Stephen Rust and Salma Monani, “Introduction: Cuts to Dissolves—Defining and Situating Ecocinema Studies,” in *Ecocinema Theory and Practice*, eds. Stephen Rust, Salma Monani, and Sean Cubitt (New York: Routledge, 2013), 1.

conclude the film that is supposed to be his masterpiece. The sumptuous, painterly Alpine landscapes shot by cinematographer Luca Bigazzi, in this version of the story, offer a sublimely beautiful setting for the men's existential crises.

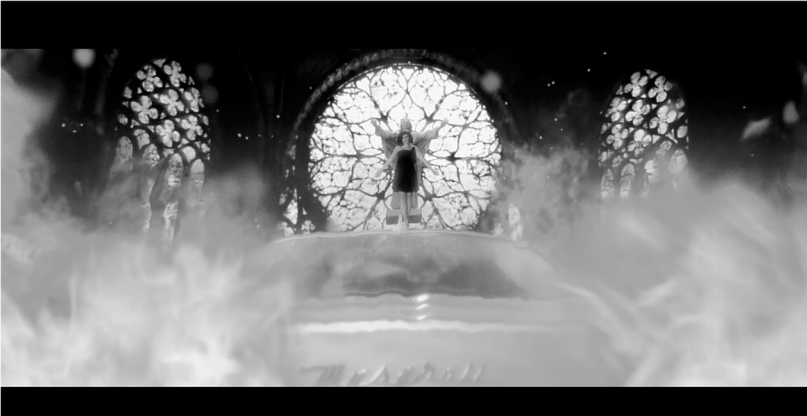
But the sweeping cinematography and subtle narrative threads that compose *Youth* frame much more than just the existential trials of two men; the film offers multiple opportunities to perceive the ways that personal and environmental crises are radically, inextricably co-constituted. This is because a film is not just a story, but an encounter of material texts: landscapes, forces, bodies of all kinds. As Serenella Iovino explains, elaborating on this spacious idea of textuality, texts emerge “from the encounter of actions, discourses, imagination, and physical forces that congeal in material forms.”¹⁰ Onscreen in *Youth*, entangled texts tell emergent stories of the co-constitution of cultures and natures. For example, the story unfolds outside of Davos, Switzerland, the highest town in Europe and home of the annual, lavish World Economic Forum, where discussion topics like “Better Growth, Better Climate” unproblematically erase any potential conflicts between neoliberal economies and environmental futures.¹¹ When Miss Universe appears as a hotel guest, chagrined contemporary viewers are reminded of the 45th United States President, who used to own the pageant, and is currently in the process of gutting climate legislation, silencing climate scientists, and appointing climate deniers to key cabinet positions.¹² Global tourism and the equally global workforce that supports it, evident throughout the film, are facilitated by petroleum culture, as scenes framing roaring jet engines recall. Innocent-looking pastures of Alpine bovines call to mind the significant role that global livestock production plays in emitting greenhouse gases, specifically methane, and their presence in the mountains gestures to the thinning of mountain forests that can lead to hydrogeological instability and result in natural-cultural disasters like floods, avalanches, and landslides. With all this in mind, the rising water levels in Venice's Piazza San Marco in an oneiric dream sequence suggest that Fred's nightmares indeed have something to do with a global environmental crisis.

¹⁰ Serenella Iovino, *Ecocriticism and Italy: Ecology, Resistance, and Liberation* (London: Bloomsbury, 2016), 3.

¹¹ In 2015, the year *Youth* came out in theaters, the World Economic Forum featured talks on “Closing the Climate Deal,” “Better Growth, Better Climate,” “Tackling Climate, Development, and Growth,” “What's Next? A Climate for Action.”

¹² Donald Trump's name is in fact visible in the article Fred reads about Miss Universe. For more on Trump's climate politics, see John Bellamy Foster, “Trump and Climate Catastrophe,” *Monthly Review* 68, no. 9 (February 2017).

Fred's Venetian dream is eerie and potentially prophetic, yet another, stranger dream sequence in the middle of the film foregrounds fire in an intriguing way, and suggests how climate discourse and cinema intersect. Fred's daughter Lena (played by Rachel Weisz) learns that her husband, Mick's son Julian (Ed Stoppard), has left her for another woman. When Julian arrives at the hotel accompanied by the woman in question, it provokes a nightmare where Lena envisions her husband speeding through idyllic Swiss valleys in a Maserati with his new lover, the singer Paloma Faith (in a cameo role). Lena's nightmare lasts one minute, and takes the form of a stylized music video with a pulsing pop rhythm. Retro titles announce the song title, "Can't Rely on You" (from the album *A Perfect Contradiction*), as Faith sings, dances and lounges seductively in the Maserati. The montage concludes as Julian speeds into a mountain church, flames engulf the screen, Faith blows a fiery kiss, and Lena, suspended on a burning cross, screams as her face melts.



Lena's nightmare about her husband and his sexy singer-lover aptly performs the angst of a jilted spouse, but cinematic and environmental anxiety materialize in this sequence, too. The nightmare montage contrasts eloquently with what comes before and after, for its speed, noise, energy, color, and tone. A film-within-a-film, it is a consumerist, escapist fantasy in the midst of an art-house production. In the meta-cinematic *Youth*, the sequence seems to harbor some of the concern expressed by Italian auteurs that the "piccolo schermo," or "small screen," might triumph over the "grande schermo" (big screen), or that contemporary attention spans—whether of romantic partners or film viewers—might prefer succinct

expressions of explosive passion over slow, meditative film.¹³ Here, film's fear is Lena's fear: fear of obsolescence, of irrelevance, of being superseded by something faster, younger, and more spectacular.

But thinking through fire as elemental matter further charges the petroleum-fueled atmosphere, and the repressed pyric regime of cinema rages to the surface of the screen. From its origins, cinema has been pyric. The original nitrate film stock was both chemically unstable and highly flammable—so flammable that a short trailer reel, if ignited, can produce flames that roar like a jet engine. As it decomposes, nitrate film stock can spontaneously combust, and once ignited, such a film fire can't be put out with water. The fumes released when it burns are highly toxic.¹⁴

Over its short history, the losses of film to fire have been breathtaking. There were fires in film studios, projection booths, and archives. Human lives were lost in some of these conflagrations, too. In 1937, for example, a huge fire in Fox Studios in New Jersey destroyed 40,000 cans of film, erasing decades of cinematic history, and killing a thirteen-year-old boy who lived near the storage vaults.¹⁵ The archivist Heather Heckman writes that nitrate fires consumed:

“all the films that had been produced by both camps during the [Spanish] Civil War”; at least fifty unique actuality films documenting Czech life in the interwar period; nearly all of the pre-1951 holdings of one of Egypt's major film studios; more than 12.5 million feet of unique Universal outtakes; “irreplaceable material” held in Canada's National Film Board Archives; all but three of early master Victor Sjöström's silent Swedish works; and an unknown number of unique titles held by the Cinematheque Française.¹⁶

¹³ There are many meta-cinematic moments in the film: acclaimed director Mick and a team of young screenplay writers discuss how to end the film he plans to make; another hotel guest, played by Paul Dano, is an actor who has retreated to prepare for his next role; Jane Fonda passes through the film as the diva who was Mick's muse and is supposed to star in his film-to-be.

¹⁴ Heather Heckman, “Burn After Viewing, or, Fire in the Vaults: Nitrate Decomposition and Combustibility,” *The American Archivist* 73 (Fall/Winter 2010): 483.

¹⁵ Anthony Slide, *Nitrate Won't Wait: A History of Film Preservation in the United States* (Jefferson, NC: McFarland & Co., 1992), 13.

¹⁶ Heckman, “Burn After Viewing,” 484.

Archivists estimate that 90% or more of silent films have been lost, and perhaps 50% of all films ever made.¹⁷ Fire in a film about film, then, provocatively exposes cinema's own combustible legacy.¹⁸

Yet in the Paloma Faith sequence, this pyric reading is complicated by the fact that the fire onscreen was almost entirely created in post-production using special effects. It thus begs the question: is computer-generated fire, crafted by digital wizardry in a studio, "real" fire? Digital effects supervisor Marc Hutchings explained in an email that:

Paloma and the Maserati were shot on green screen. We then keyed the shots in a compositing software called Nuke. A full CG church was created in Softimage XSI and rendered in Arnold Renderer. Plate elements of fire were composited along with the CG background, heat haze and CG embers added and CG reflections rendered using an aligned 3d model of the car.¹⁹

Far more than elsewhere in the film, here *Youth* foregrounds its status as digital creation. From the shallowness of the landscapes to the stylized movement of the Maserati, and from the sharp edges between people and backgrounds, to fiery kisses and melting faces, the scene openly signals its lack of realism. Fire at first seems to speak as immaterial matter: composited digital magic that evokes, but does not involve, actually burning something. Computer-generated imagery substitutes the "real" special effects that, in earlier cinema, used to combust and consume sets, props, vehicles. But in the transition from celluloid to digital, from soundstage to postproduction, the fire is not really gone.

"Real" fire is not matter, and not an object, but rather a combination of forces, specifically fuel and oxygen. "Real" fire is, as Catriona Sandilands explains, the "life-sustaining process by which the chemical energy created by photosynthesis and stored in plants is converted, through oxidation, back into the light and thermal energy from whence it came."²⁰ In contemporary petroleum culture, however, closed combustion and the powers unleashed by industrialization make this fire harder to see. In his "quick story" of our "pyric transition," environmental historian Stephen J. Pyne notes that

¹⁷ This estimate was made by Jan-Christopher Horak, director of the UCLA Film & Television Archive, in the documentary *Lost Forever: The Art of Film Preservation*, directed by Paul Mariano and Kurt Norton (2011; Martinez, California: Gravitas Docufilms).

¹⁸ This legacy is of central importance in Quentin Tarantino's *Inglourious Basterds* (2009), where a nitrate film fire will change the course of World War II history.

¹⁹ Marc Hutchings, email to author, April 13, 2017.

²⁰ Catriona Sandilands, "Combustion," *The Goose* 15, no. 1 (2016): 2.

electric lights replace candles; gas stoves replace wood ones; fossil-fueled factory farming breaks down biomass for chemical fertilizers.²¹ Movie nights, we might add when thinking as humanists, replace campfire stories. Fire's energy is encased or redirected into engines, processes, and substances that defer or disguise its biochemical power. In other words, in our contemporary world, fire, once a central visual figure in human culture, has become mostly invisible.

As Pyne explains, the Anthropocene's "environmental maladjustments—the onset of global warming, the explosion of human population, modern planetary pollution, the triggering of mass extinctions"—can all be mapped onto the timeframe of anthropogenic, industrial fire and its accelerated release of millions of years of stored carbon into the atmosphere.²² One last important corollary: because anthropogenic fire in the Anthropocene occurs, mostly, "internally or invisibly—distilled into petroleum fuels or sublimated into electricity,"²³ it is more easily forgotten.

In the unfolding "quick story" of cinema that I am tracing, volatile nitrate film stock and burning projectors are replaced by safety film and then ephemeral digital, but although the first of these burns openly, closed combustion fuels them all. Although in a way different than combustible nitrate film, in other words, Lena's nightmare reveals that digital media also burns. In her exceptional study of the material cost of filmmaking, Nadia Bozak argues that digital media "must be pulled down from the ether of the incorporeal and affixed with the ontological, environmental, and cultural designations appropriate for all resource-derived commodities."²⁴ The Paloma Faith sequence's "fake" fire, I propose, is thus an eloquent contradiction, because it reignites our thinking about the apparent "immateriality" of digital media. In dialogue with the placid, green Alpine sequences of much of the rest of the film, the music video's digital fire stands in the film's subconscious, and can remind us that digital technology—and digital escapism—run on hidden fires, however cleverly repressed.

²¹ Stephen J. Pyne, *Fire: Nature and Culture* (London: Reaktion Books, 2012), 161.

²² Ibid., 158. Pyne writes that the notion of the "Anthropocene" maps onto the concept of industrialization, and that, "for fire history," it thus marks "the shift in fuels from surface biomass to fossil biomass, with all that means for how humanity applies and withholds fire on the land" (158).

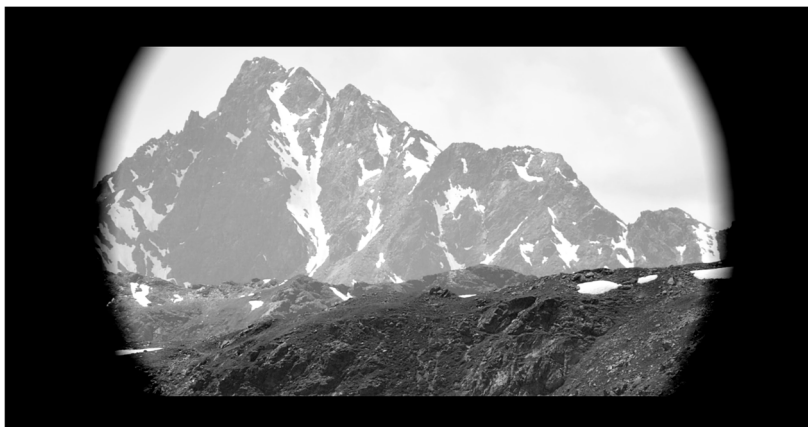
²³ Ibid., 163.

²⁴ Nadia Bozak, *The Cinematic Footprint: Lights, Camera, Natural Resources* (New Brunswick, NJ: Rutgers University Press, 2012), 60.

A Farewell to Ice: Climate Change and Mourning the Future

Reflecting on the cinematic legacy lost to spectacular archival fires, critic John Carr observes, “It’s true. All these films, they are like the polar ice caps. They are vanishing fast. We’re playing beat the clock here.”²⁵ Carr’s metaphoric rendering of lost film history as cultural climate change speaks eloquently for this meta-cinematic, eco-material reading of film fire, because melting also matters in the story of pyric cinema. In the Paloma Faith sequence, Lena’s face melts; in other scenes in the film, where the hidden fires of industrial combustion drive the flows of images, climate-changed landscapes marked by disappearing Alpine ice dominate the screen.

In a poignant scene, filmed on an observation deck high in the mountains, Mick urges a member of his team of scriptwriters to look through a telescope, which frames a distant peak. The future, he explains, looks close when you’re young. In the subsequent shot, Mick turns the telescope around and frames the rest of the scriptwriters, in miniature, at the end of the lens. When you are old, he says, everything seems far away. Mick’s pedagogy sutures together mountain peaks and human figures, geological presents and anthropogenic pasts; it urges his devoted crew to understand a human lifespan in spatial, temporal, and social terms. These comments also evoke the difficulties of conceiving of massive-scale environmental problems in human time.



²⁵ *Lost Forever* (2011).

Looking through the telescope at an Alpine peak, viewers gaze on a landscape carved by glaciers. Although the Alps originated in convergent plate movements, glaciers sculpted the dramatic landscape, polishing and eroding their surfaces and deepening and broadening Alpine valleys.²⁶ If the landscape appears beautiful, or even sublime, ice, at least in part, is the driving force. But in the Anthropocene, we cannot take ice for granted. In *A Farewell to Ice: A Report from the Arctic*, Peter Wadhams, a sea ice scientist and polar researcher, writes an urgent personal appeal to his readers to explain the rapid, dramatic changes in Arctic ice as our earth's climate warms. His book's scientific explanation of glaciation and sea ice and its impending disappearance includes a poignant "farewell to ice":

I have spent my entire scientific life [...] working on the science of sea ice and the polar oceans. What do these changes mean to me as I prepare to say a personal farewell to this magical landscape? Overwhelmingly I feel that this is a spiritual impoverishment of the Earth as well as a practical catastrophe for mankind. Our own greed and stupidity are taking away the beautiful world of Arctic Ocean sea ice, which once protected us from the impacts of climatic extremes. Now urgent action is needed if we are to save ourselves from the consequences.²⁷

The melancholy of Wadhams' "farewell to ice" is equally relevant in Davos. In their study of "very small glaciers" in the Swiss Alps, Matthias Huss and Mauro Fischer outline that the melting of such glaciers due to climate change affects hydrogeological stability, landscape erosion, and will even contribute to global sea level rise.²⁸ This melting is happening quickly. Huss and Fischer report that: "Over the last four decades, very small glaciers in Switzerland lost roughly 70% of their area making them the size class with the highest shrinkage rate. A considerable number of very small glaciers has already vanished throughout the last century, although more than [a] thousand of these dwarf glaciers are still present in the Swiss Alps."²⁹ By 2060, the scientists' model predicts "negligible ice volume" for very small glaciers like the ones near Davos.³⁰

There is thus virtually no doubt that the Swiss landscape will be, geologically speaking, significantly different in forty years. Such a hypothesis

²⁶ O. Adrian Pfiffner, *Geology of the Alps* (Hoboken, NJ: Wiley-Blackwell, 2014), 10–1, 343.

²⁷ Wadhams, *Farewell*, 4–5.

²⁸ Matthias Huss and Mauro Fischer, "Sensitivity of Very Small Glaciers in the Swiss Alps to Future Climate Change," *Frontiers in Earth Science* 4 (2016): 1–2.

²⁹ *Ibid.*, 2.

³⁰ *Ibid.*, 10.

might cause septuagenarians to fret for their children and grandchildren, but does it provoke them to act, or to mourn, or neither? Psychology professor Peter Kahn worries that we tend to ““environmental generational amnesia,”” that we are too adaptable, quickly integrating the realities of a climate-changed world into our frame of normalcy.³¹ Novelist and essayist Amitav Ghosh instead condemns, evocatively, our “great derangement,” or the fact that “our lives and our choices are enframed in a pattern of history that seems to leave us nowhere to turn but toward our self-annihilation.”³² Jon Mooallem frets that “the future we’ve been warned about is beginning to saturate the present.”³³ How can it be that humans and Alps suddenly transform on the same timeline?

Such perplexing existential framings, which are mirrored in the innovative telescope and camera lenses layered on screen, help underline that climate change is not just a technoscientific problem, but also a problem of vision and the imagination. Mick’s outline of a geological future (the mountain peak), juxtaposed with the anthropogenic past (the friends on the overlook) screens the difficulty of understanding the coincidence of human and geological time. Where is our climate future located, and what does it look like? Is it imperative to act if we are young, but mourn if we are old? What if the future is now, and we are looking right at it? Alpine peaks and valleys without glaciers will have a different geological future than the ones in an alternate possible world where human civilization expresses itself differently, and where ice flows melt more slowly. Looking at a glacier, knowing that it is melting, is not just to mourn the absence of the object, but to mourn a future that will never be. Looking at it through a telescope, framed through a digital camera lens, should be to know that our high-powered cultural instruments are implicated in bringing a climate-changed future closer, even while showing that perception, storytelling, and media are important partners in the conversation about what to do now.

³¹ Kahn argues that “we all take the natural environment we encounter during childhood as the norm against which we measure environmental degradation later in our lives. With each ensuing generation, the amount of environmental degradation increases, but each generation in its youth takes that degraded condition as the nondegraded condition—as the normal experience” (106).

³² Amitav Ghosh, *The Great Derangement. Climate Change and the Unthinkable* (Chicago: University of Chicago Press, 2016), 111.

³³ John Mooallem, “Our Climate Future is Actually Our Climate Present,” *The New York Times Magazine*, April 19, 2017, <https://www.nytimes.com/2017/04/19/magazine/our-climate-future-is-actually-our-climate-present.html>.

The proximate future, which looks so close in the telescope, is one where we must, urgently, begin to recognize the significant footprints of our passage across even remote-seeming places on the globe. The proximate future—so close—is now. It is time to change everything, as Naomi Klein urges: even the way we read media that may not intend to say anything about climate change.

Youth and the Anthropocene, or, Why We Need (Stealth) Environmental Humanities

In his preface to *The Glaciers of the Alps* (1860), the Irish physicist John Tyndall writes:

In the following work I have not attempted to mix Narrative and Science, believing that the mind once interested in the one, cannot with satisfaction pass abruptly to the other. The book is therefore divided into Two Parts: the first chiefly narrative, and the second chiefly scientific.³⁴

In 1860, just before Italy became a unified nation, Tyndall, a physicist, mountaineer, and writer, decided that narrative and science were not easily reconciled in the mind, so he opted to conceptually segregate them in his book—one could not, he thought, take in the glory of the Alps and simultaneously understand how a glacier works.

Tyndall's conceptual problems continue to resonate as we contemplate the “wicked problem” of climate change, because they conjure up a series of rifts—disciplinary, narrative, technical, social—that threaten our ability to respond. Solutions to climate crisis are often presented as exclusively technological fixes (for example, geoengineering volcanoes, carbon capture, renewable energy technologies) that fit neatly into capitalist systems, and that are framed in the same logic of man's mastery over nature that precipitated the crisis in the first place. Stacy Alaimo argues that abstract, technical climate science, the modern cousin of the sort of glaciology that Tyndall found difficult to mix with narrative, is often characterized by “delusions of hyperseparation, transcendence, and dominance” that “only engender denial of the many global environmental crises.”³⁵ Climate

³⁴ John Tyndall, *The Glaciers of the Alps, being a Narrative of Excursions and Ascents, An Account of the Origin and Phenomena of Glaciers, and An Exposition of the Physical Principles to Which they are Related* (London: Longmans, Green, and Co., 1896 [1860]), vii.

³⁵ Stacy Alaimo, “Insurgent Vulnerability and the Carbon Footprint of Gender,” *Kvinder, Køn & Forskning* 26, no. 3–4 (2009): 28.

science can be alienating, and it can also reinforce the “hegemonic masculinity” that some people accuse Sorrentino of celebrating in his films. Mapping climate science requires perspectives from above, from afar, compacting millennia of data, and as such, argues Alaimo, it relies on “the form of masculinity with the most power—the invisible, unmarked, ostensibly perspectiveless perspective.”³⁶

This is the point that a team of researchers at the University of Oregon makes in their article on “Glaciers, Gender, and Science.” Led by environmental historian Mark Carey, the research team proposes that knowledge about glaciers, which they recall are “icons of global climate change,” “has historically participated in the imperialist, colonial, and capitalist projects associated with polar exploration, mountain colonization, resource extraction, and Cold War and other geopolitical endeavors.”³⁷ In their subsequent proposal for feminist glaciology, Carey *et al* argue that Tyndall, who refused to marry Narrative and Science, dominated early debates about how glaciers moved partially by performing his masculinity: he “mobilized his greater fame as a mountaineer—having achieved many pioneering first ascents—and deployed a rhetoric of manly risk and exertion,”³⁸ and as such, he got significant press and also scientific credibility. Ice is neither politically nor socially neutral.

Climate science, instead, should show our vulnerability to risk, and awareness to vulnerability must engender cultural shifts, not just technological ones. Vulnerability, Alaimo explains, is “a sense of precarious, corporeal openness to the material world,” and she believes it “can foster an environmental ethics.”³⁹ Vulnerability is one of the compelling drivers of narrative, and it is a central theme in *Youth*.

In another memorable scene in the film, an awkward hotel employee named Luca Moroder (his long beard and ropy arms call to mind the corporeal aesthetic of nineteenth-century outdoorsmen) struts over to Lena and attempts to strike up a conversation. He explains that he teaches climbing at the hotel, then extols the virtues of his watch, which can calculate VO2 max. Vaunting a puffed-up posture and offering a litany of technical qualifications, Moroder draws on the rhetoric of manly risk and exertion outlined by Carey and his team in their evaluation of Tyndall’s scientific performance. For a number of painful minutes, nothing impresses

³⁶ Ibid., 28.

³⁷ Mark Carey, M. Jackson, Alessandro Antonello, and Jaclyn Rushing, “Glaciers, Gender, and Science: A Feminist Glaciology Framework for Global Environmental Change Research,” *Progress in Human Geography* 40, no. 6 (2016): 773.

³⁸ Ibid., 778.

³⁹ Alaimo, “Insurgent Vulnerability,” 23.