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#### **ARTICLE**

# Anthroposcenes: Towards an Environmental Graphic Novel

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In this article, I consider how two contemporary graphic novels, Richard McGuire's Here (2015) and Lauren Redniss's Radioactive (2010), take up the challenge posed by the Anthropocene to represent both geologic and human scales. I argue that graphic novels prove a fruitful site for investigating the capacities of both visual art and literature to respond to such a refiguring of the boundaries of the human subject and narrative. While the most commercially popular and frequently studied texts in climate fiction tend to be novels or films, I turn from considering the patterns of genre fiction to the affordances of form. I explore how the conceptual and aesthetic frameworks of the graphic novel form encompass environmental phenomena that are often difficult to visualize elsewhere, stretching beyond human perspectives. In particular, I show how the aesthetics of temporality, or visual time, in graphic novels encourages readings that take notice of the nonhuman presence in plots and narrative events. In arguing for the environmental, more-than-human implications of visual time in the graphic novel form, I focus on how representations of domestic habits and daily routines in Here and Radioactive are articulated within and implicated by unruly scales of time and space (too small and too large to contain). I argue that the aesthetics of time in the form of the graphic novel address representational challenges central to the Anthropocene, environmental justice, and slow violence, in particular, the mediation between the planetary and the domestic.

Keywords: Anthropocene; climate fiction; cli-fi; graphic novels; comics

One of the many visually stunning pages of the graphic novel *Radioactive* includes photographs from Mary Osborn's archive of 'mutant plant specimens' collected from the area near her home in Harrisburg, Pennsylvania. Osborn, who became an antinuclear activist after experiencing the 1979 nuclear meltdown at Three Mile Island, 'can see the Three Mile Island plant from her bedroom window' (Redniss, 2010: 103).

In preserving these specimens she has captured not only a material record of nuclear contamination but also a compendium of images of the Anthropocene, a visual history that documents humanity's ecological impact on both domestic and geologic scales. The specimen that dominates this page in *Radioactive* is a pink rose, structurally complex (with 'two complete sets of leaves and petals') but sterile. These overlapping, decontextualized images of irradiated flowers highlight how the Anthropocene has a visual culture as well as scientific and literary narratives.

Removed, disparate, and often imperceptible, human impacts on the environment demand representation. The concept of the Anthropocene has usefully served to draw attention to the intersections between multiple forms of anthropogenic destruction, provoking debate and responses across a wide range of academic disciplines and in the public sphere. As many have noted, the Anthropocene as a concept at once elevates the human species to a geologic force and contradictorily serves to radically sideline the life of any given human being in the face of the geologic timescale.

What can literary fiction bring to a discussion of the Anthropocene? Some have suggested that is the only way to imagine and represent a future that is post-civilization and post-humanity (Klein, 2013: 84), given literature's rich tradition of imagining life after the apocalypse. In the present, fiction's knack for representing invisible and ephemeral phenomena allows it to act as a record, 'a snapshot of the anxious affect of the modern world as it destroys itself – and then denies even its own traces' (Allewaert and Ziser, 2012: 235). Others point out that literature and theory bring a critical discourse supposedly missing from the sciences, allowing a self-examination of what is 'at stake in the self-naming by a species of an epoch of geologic time' (Boes and Marshall, 2014: 60). Perhaps the most common proposed role for literature is that of a 'scaling' (McGurl, 2013: 634) or 'focusing' (Shaviro, 2011: 4; Higgins, 2016: 120) device, whereby the very large can be shown intersecting with the comparatively very small or whereby the imperceptible can be made 'visceral' (Nixon, 2014: n.p.) by coming into contact with human characters. Yet other writers and scholars question whether the form of the novel can withstand the inclusion of

these disparate timescales. Novelist Amitav Ghosh wonders whether 'to think about the Anthropocene will be to think in images, [and] will require a departure from our accustomed logocentrism. ... Could that be the reason why television, film, and the visual arts have found it much easier to address climate change than has literary fiction? And if that is so, then what does it imply for the future of the novel?' (Ghosh, 2016: 83). As Ghosh goes on to suggest, a form that employs both narrative and images like the graphic novel could be one answer.

In this article, I consider how two contemporary graphic novels, Richard McGuire's Here (2015) and Lauren Redniss's Radioactive (2010), take up the challenge posed by the Anthropocene to represent geologic and human scales. I argue that graphic novels prove a fruitful site for investigating the capacity of both visual art and literature to respond to such a refiguring of the boundaries of the human subject and narrative. While the most commercially popular and frequently studied texts in climate fiction tend to be novels or films, I turn from considering the patterns of genre fiction to the affordances of form. I explore how the conceptual and aesthetic frameworks of the graphic novel form encompass environmental phenomena that are often difficult to visualize elsewhere, stretching beyond human perspectives. In particular, I show how the aesthetics of temporality, or visual time, in graphic novels encourages readings that take notice of the nonhuman presence in plots and narrative events. In arguing for the environmental, more-than-human implications of visual time in the graphic novel form, I focus on how representations of domestic habits and daily routines in Here and Radioactive are articulated within and implicated by unruly scales of time and space (too small and too large to contain). I argue that the aesthetics of time in the form of the graphic novel address representational challenges central to the Anthropocene, environmental justice, and slow violence, in particular, the mediation between the planetary and the domestic.1

<sup>&</sup>lt;sup>1</sup> My sincerest thanks to the issue editors, journal staff, the two anonymous reviewers, and to Mario Ortiz-Robles, Jackson Perry, and Peter Ribic for their suggestions during the editing process. All remaining errors are my own.

## Imagining the Anthropocene

Time is a problem in the Anthropocene. Several chronologies have been proposed, each emphasizing a different scale of human activity and rupture in historical progress.<sup>2</sup> The Anthropocene, by necessity, involves juxtaposing the very large with the very small (the domestic, the planetary), but also the very large with the fairly large, when comparing geologic history with human history.<sup>3</sup> These unruly scales of time and space have implications for both nations and narrative, for political borders and disciplinary boundaries. As Ghosh suggested above, it is an open question how or if literary forms can accommodate these radically disparate scales of space and time. Adam Trexler makes a similar argument in the recently published *Anthropocene Fictions*:

<sup>&</sup>lt;sup>2</sup> Paul Crutzen marks the invention of the steam engine in 1784 as a potential 'start date,' particularly as it coincides with 'growing global concentrations of carbon dioxide and methane' evident in subsequent analyses of air pockets found in polar ice (Crutzen, 2002: 23). Others point to the moment of global self-reflection made possible by increasingly detailed images of the Earth taken mid-space flight in the mid-twentieth century (Biello, 2015: n.p.). Perhaps the most precise proposed start date is July 16, 1945, at 5:29 am in New Mexico, when U.S. scientists tested the world's first atomic bomb and 'radioactive isotopes from this detonation were emitted to the atmosphere and spread worldwide entering the sedimentary record to provide a unique signal ... that is unequivocally attributable to human activities' (Steffen et al, 2015: 93). That start date is why, while Redniss's Thunder & Lightning: Weather Past, Present, Future, may seem a more appropriate choice here, I argue that Radioactive is more concerned with the Anthropocene, with human geologic impact that is at once bodily immanent and difficult to see. As Ference Szasz writes in Atomic Comics, 'the vast implications that flowed from the emergence of the subatomic world proved so complex that [we] needed a new way to comprehend the incomprehensible' (Szasz, 2012: 133). Thunder & Lightning does extend Redniss's focus on global ecological events, referencing Hurricane Irene, the Global Seed Vault, London's 'pea-souper' fogs, wildfires, and geoengineering attempts to 'replace God and magic to claim dominion over the weather' (Redniss, 2015: 142).

<sup>&</sup>lt;sup>3</sup> As Timothy Morton writes in *Hyperobjects*, 'think about it: a geologic time (vast, almost unthinkable), juxtaposed in one word with very specific, immediate things – 1784, soot, 1945, Hiroshima, Nagasaki, plutonium' (Morton, 2013: 5). These juxtapositions and variable start dates serve to interrupt the smooth progression of the past, present, and future. Thus the need for an aesthetics of juxtaposition to convey these new temporal horizons, spawning figures such as 'golden spikes' (Lewis and Maslin, 2015: 171), 'numerous inflection points' (Connolly, 2017: 32), 'ruptures' (Crutzen, 2002; Steffen et al, 2015; Nixon, 2014; etc.), 'fractures' (Ghosh, 2016: loc. 259), and new periods folded within the epoch of the Anthropocene like the proposed Great Acceleration, characterizing the ever-increasing rate and scope of anthropogenic impact since 1950 (Steffen et al, 2015).

In addition to dealing with individuals, families, and the destiny of nations, the narrator's voice would also seem to need to encompass economic processes, the incremental emissions of every grocery run, chemical and meteorological variations, the life cycle of phytoplankton, and any number of systems not typically incorporated into a novel. What narrative could possibly span these scales or make their interrelations comprehensible? (Trexler, 2015: 77)

These difficulties are not posed by the concept of the Anthropocene as such, but rather by the nature of the environmental impact that these narratives must encompass: a domestic ('every grocery run') that is also the planetary ('incremental emissions') and that has material implications. Trexler points out that both readers and texts must adapt to these new concerns, to examine overlooked minutiae: '[M]iniscule domestic choices such as car ownership, vacation destinations, choices between suburban and urban homes, and thermostat settings contribute to catastrophic effects. . . . Climate criticism must develop ways to describe this interpenetration between domestic and planetary scales' (Trexler, 2015: 26). As Trexler notes, one critical tactic in reading Anthropocenically, in asking how texts take up and respond to the Anthropocene, has been to connect 'miniscule domestic choices' to relevant geologic phenomena.

These 'miniscule domestic' scales of the Anthropocene pose representational challenges for visual mediums as well as the literary. To explain the Anthropocene is almost always to appeal to visual phenomena like satellite images, statistical models or other visual evidence of pollution, debris, and contamination.<sup>5</sup> In 'The

<sup>&</sup>lt;sup>4</sup> See Buell (Buell, 2003: 145), Nixon (Nixon, 2011: 2–3), Marshall (Marshall, 2015: 537). Rob Nixon points out that narrating anthropogenic destruction is a matter of survival for both literary forms and vulnerable populations across the globe that face the 'formidable representational obstacles' (Nixon, 2011: 3) and material impacts of 'a violence of delayed destruction that is dispersed across time and space' (Nixon, 2011: 2).

<sup>&</sup>lt;sup>5</sup> Ursula Heise's explanation of the Anthropocene era emphasizes how 'humans have transformed the Earth to such an extent that our impact will even be *visible* in the planet's geological stratification into the long-term future' (Heise, 2016: loc. 4146, emphasis mine). Timothy Morton describes 'aesthetic effects' of anthropogenic environmental impact evident in sunsets and tomato skins (Morton, 2013: 39). Morton writes, 'we only see snapshots of what is actually a very complex plot' (Morton, 2013: 70).

Climate of History,' the 2009 article often credited with bringing the concept of the Anthropocene to literary studies, Dipesh Chakrabarty appropriately describes the representational challenges of the Anthropocene in visual terms, not narratological ones: 'our usual historical practices for visualizing times, past and future, times inaccessible to us personally – the exercises of historical understanding – are thrown into a deep contradiction and confusion. ... It is not surprising then that the crisis of climate change should produce anxieties precisely around futures we cannot visualize' (Chakrabarty, 2009: 198; 211). In using visualizing as a proxy for understanding, Chakrabarty implicitly recognizes the tendency of many narratives to rely on seeing effects, records, and ecological crises as a route to believing. Thus, I argue, the Anthropocene acts as a visual phenomenon even in exclusively written texts and becomes an aesthetic quandary as well as an environmental and narratological one.<sup>6</sup> As I lay out below, graphic novels prove a potent form for exploring the representational consequences of writing across domestic and planetary scales.

### **Environmental Graphic Novels**

The structure of the form of the comic strip has, from its inception, been closely tied to anthropogenic ecological impact and urbanization (and the footprint of cities is closely tied with many of the other markers of the Anthropocene, from population growth to industrial output).<sup>7</sup> Comics critics Jared Gardner and Santiago García link

Recent scholarship has begun to consider the politics of visualizing the Anthropocene in both scientific and artistic modes. In *Exposed* (2015), environmental scholar Stacy Alaimo makes the compelling case that considering the ethical and epistemological implications of how we *visualize* the earth is as vital as considering the way we *narrate* ecological phenomena. She notes how representations of climate change tend to rely on 'the invisible, unmarked, ostensibly perspectiveless perspective' which 'may entrench conventional modes of scientific objectivity that divide subject from object, knower from known, and assume the view from 'nowhere while claiming to be from everywhere equally' that Donna Haraway has critiqued' (Alaimo, 2016: 98). Visual artist Kay Anderson argues that 'current Anthropocene discourse is plagued by narratives that are heroic, solutionist and masculinist, and that re-assert human dominance over the planet' (Anderson, 2015: 346). Nicholas Mirzoeff makes a related claim, in 'Visualizing the Anthropocene,' where he identifies visual art that, by making pollution the painterly equivalent of rose-colored glasses, 'at once reveals and aestheticizes anthropogenic environmental destruction' (Mirzoeff, 2014: 221). I refer again to Mirzoeff in the conclusion of this essay.

<sup>&</sup>lt;sup>7</sup> In Paul Crutzen's 2000 article credited with first proposing the concept of the Anthropocene, he cites as one of his metrics for anthropogenic impact the increase in urbanization (Crutzen, 2000: 14).

the aesthetics of the comic 'panel' to the new modularity of apartment buildings in nineteenth-century cityscapes (Gardner, 2016: 42) and, furthermore, to the new noise pollution, as visually expressed by the speech balloon (García and Campbell, 2015: 47).8 The structure of urban life, the speed of automobiles, and the height of skyscrapers all introduced new relationships between time and space that the form of comic strips aimed to capture and put to work in narratives.

For literature in the Anthropocene, the injunction to confront and represent both planetary and domestic time scales in the same narrative puts pressure on literary character, narrative voice, and setting. Yet representing disparate time scales is a central aspect of comic form, what Scott McCloud calls 'an artist's map of time itself' (McCloud, 2000: 206). Other critics likewise agree that 'to read comics is always to see past, present, and future in a glance. ... We always inhabit multiple temporalities when reading comics — not just imaginatively, as when a film or novel encourages us to imagine what will happen or to recall an earlier event. We actually see past, present, and future laid out before us in space-time with every page' (Gardner, 2016: 167). 9 Yet when confronted with the Anthropocene, where 'our usual historical practices for visualizing times, past and future, ... are thrown into a deep contradiction and confusion' (Chakrabarty, 2009: 198), where time must be compressed, accelerated, and disrupted, how do graphic novelists respond to this representational crisis?

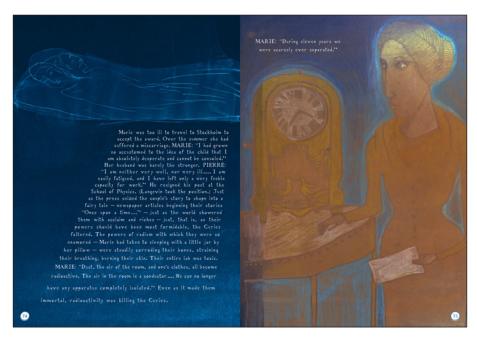
Here and Radioactive are both texts that take time as an environmental problem, engaging with environmental accidents that unfold in non-linear directions. Radioactive, by Lauren Redniss, follows the personal and professional catastrophes of Marie Curie and considers the aftermath of her scientific discoveries. Richard McGuire's Here is a non-sequential graphic narrative that depicts one space over

<sup>&</sup>lt;sup>8</sup> García points out how this link 'between sequential narratives – that is, the cartoon strip – and architecture (the floors of a building)' continues to impact both the form and content of contemporary comics. For example, 'it would serve as the central metaphor' (García, 2015: 42) for Chris Ware's recent experimental text *Building Stories*.

<sup>&</sup>lt;sup>9</sup> Some critics, like Charles McGrath, identify this as an area where graphic novels outpace novels: 'one thing the graphic novel can do particularly well ... is depict the passage of time, slow or fast or both at once – something the traditional novel can approximate only with blank space' (quoted in Baetens and Frey, 2015: 177).

time, as it transforms from wooded expanse in the 1600s, to a suburban house in New Jersey in the 1980s, to completely underwater and back again. Both novels mix genres as well as aesthetics, drawing on multiple forms of visual representation and narratives both historical and imaginative. Redniss traveled to Hiroshima to interview survivors of the atomic bombing, to the Nevada Test Site outside of Las Vegas to talk with weapons specialists, to Warsaw to see the house where Marie Curie was born, and to Paris to interview Curie's granddaughter. McGuire spent 'a year reading about the area surrounding the house where [he] grew up,' and combed through family archives to find 'casual unguarded moments of human activity' (Guarnaccia, 2015: 28). Both Here and Radioactive emphasize how domesticity is an environmental practice as a well as a collection of daily moments of human activity. In one particularly chilling confusion, Redniss structures a page in such a collaged way that it becomes unclear if Marie Curie's statement that 'during eleven years we were scarcely ever separated' refers to her husband, Pierre, or the jars of toxic, ultimately lethal radium by her bedside (Redniss, 2010: 75) (Figure 1). In Here, this anthropogenic domesticity likewise rebounds across time. A panel marks women's labor across a century, with the stooped shoulders of a woman dusting in 1986 visually paralleled by the bend of a speechless woman feeding a calf in 1871. The cross-species labor of feeding a calf becomes a further emphasis of an environmental domesticity comprised of interconnected human and nonhuman worlds.<sup>10</sup> The verbal content of this page serves to supplement the visual's work to challenge a straightforward evolutionary progression by reversing the temporal logic of domesticity. A woman's work is never done, the speech bubble's content in 1986 seems to suggest: 'the more I clean, the more it gets dirty.' Thus the emblematic human character of the Anthropocene is solidly domestic, engaged in reproductive labor as well as all the excesses, tics and

The bent posture, furthermore, works to visually complicate the aesthetics of evolution and posture. As Adriana Cavarero traces in *Inclinations*, 'the notion that erect posture is somehow special' and the tradition in art, anthropology, and philosophy of valorizing 'the simple fact that humans walk upright' perpetuates a masculinist, human exceptionalism that disguises itself as 'supposedly immediate and natural' (Cavavero, 2016: 128). Emphasizing the bent posture refigures *Homo erectus* in favor of a more relational and 'zoological' human subject (Cavavero, 2016: 128).



**Figure 1:** 'During eleven years we were scarcely ever separated.' Redniss, L., 2010. *Radioactive: Marie & Pierre Curie, A Tale of Love & Fallout.* New York: Harper Collins, pp. 74–75. Available at: http://laurenredniss.com/source/uploads/2015/09/Radioactive-p74-75.jpg.

pleasures of domesticity (sightseeing, vacations, driving to work instead of taking public transit).<sup>11</sup> As domestic and planetary scales stretch 'traditions of narrating, space, place, and disaster' (Trexler, 2015: 74) in the novel, so does the Anthropocene become evident in the graphic novel by way of a formal structure that resists straightforward, linear time and emphasizes accumulation and rupture.<sup>12</sup>

Consider the domestic scale of Morton's claim that 'Twenty-four thousand years into the future, no one will be meaningfully related to me. Yet everything will be influenced by the tiniest decisions I make right now' (Morton, 2013: 122).

<sup>&</sup>lt;sup>12</sup> Here and Radioactive are, of course, not the first graphic novels to take everyday life as a subject. García, writing of Gasoline Alley, credits it with pioneering this approach: 'it is not just that Gasoline Alley exploited continuity, the story line that flows day after day, but that we might say that the series made continuity its own central theme. . . . We might say that it gave birth to a new species of story that has neither beginning nor end [but] seemed to be portraying the passage of time' (García and Campbell, 2015: 52).

## Density

In contemporary visual culture that explicitly invokes environmental degradation, accumulation is often central to the aesthetic. <sup>13</sup> Given that these artworks register the conditions of living in the Great Acceleration it is not surprising that accumulation should play such a central role in coming to terms with the increasing density and complexity of, to name just a few of the ecological accumulations, 'atmospheric concentrations of the three greenhouse gases' and the 'global tonnage of marine fish capture' (Steffen et al, 2015: 92). In other words, the Anthropocene creates the conditions for these environmental densities, accumulating in the parts per billion, as well as the conditions for aesthetic forms of density.

Density is peculiarly tied to the status of comics as a form itself, often invoked when comparing graphic novels to the novel.<sup>14</sup> But these cluttered pages are more than an attempt to demonstrate literary worth. In graphic novels imagining the Anthropocene, visual complexity and information density become reflections of the representational and epistemological challenges posed by the Anthropocene as a concept that demands juxtaposing disparate scales and scopes. At the moment that

<sup>&</sup>lt;sup>13</sup> For example, curator Julie Decker's essay 'Art and the Environment' in *Gyre: A Plastic Ocean* charts a brief history of contemporary artists' response to environmental destruction, and most of the artists she selects emphasize accumulation and visual density in their work. She discusses art like Anne Percoco's *Indra's Cloud*, a sculpture of 'more than a thousand empty water bottles bundled together to resemble a cloud' (Decker, 2014: 65). Other artworks that she points to as exemplary of current attempts to address the Anthropocene include responses to and refigurings of landfills (Decker, 2014: 61), air pollution (Decker, 2014: 62), trash collected from various beaches around the globe (Decker, 2014: 63), plastic accumulating within seabirds' stomachs (Decker, 2014, 64), and other forms of marine debris. Ursula Heise refers to this interest in accumulation as 'the enumerative mode' wherein 'painters and photographers [create] visual inventories to capture the magnitude of the biodiversity crisis' (Heise, 2016: loc. 1757).

García describes 'a preoccupation with density' (García and Campbell, 2015: 154) driving early graphic novelists: 'The issue of *density* had been a concern for adult cartoonist for a long time. In 1997, Max declared that, compared with literature, the comic 'is no less elevated, but I do believe that it has less density, of the quantity of concepts per square centimeter of page.' Of course, the rise of the graphic novel had imposed upon cartoonists the obligation of demonstrating its density in their cartoons' (García and Campbell, 2015: 153). Alan Moore, for example, said of his graphic novel *Watchmen*: 'you could probably just about call *Watchmen* a novel, in terms of density, structure, size, scale, seriousness of theme, stuff like that' (quoted in Baetens and Frey, 2015: 2).

the Anthropocene becomes an issue in Radioactive, at the moment that the drive to narrate, depict, and otherwise encapsulate the Anthropocene becomes an issue, Redniss frequently alternates between pages of high and low information density, and her overstuffed pages make the minimalist, abstracted compositions startling by comparison. These variegated aesthetic effects call attention to the forms of representation, to the ways in which the information is presented. One page presents an egg-like saffron-colored explosion seen from above, with resolution and chromatic spectrum so blended as to become almost abstract, a billowy painting rather than an explosive event. The caption, taken from Marie Curie's 1923 biography of Pierre, simply states: 'I coined the word radioactivity' (Redniss, 2010: 47). Even the page numbers are absent, allowing the fallout of this image to bleed beyond the page. 15 Other pages become even more drained of visual complexity. A single line of text, traveling horizontally across two pages – in Redniss, the binding of the book often acts as a de facto gutter, separating the panels – itself visually echoes the wake left by a transatlantic crossing. This starkness comes after a chapter of maps, diagrams, paper cut-outs, witness testimony, interviews, photographs and government Xeroxes alluding to the trail of destruction left in radioactivity's wake.

Suddenly, the Curies' biography exceeds their bio. Just as the temporal scope of the text suddenly exceeds the lifetimes of Marie and Pierre Curie, the scope of documents and images that make up the text suddenly expands as well. The first page of the fifth chapter, 'Instability of Matter,' presents the first unaltered indexical images of the text: photographs of cranial radiation equipment circa 1920 and 2001 (Redniss, 2010: 70–71). These photos, placed like mirror images in the lower corner of the pages, side-by-side, are visually echoed by two photos in the final pages of the chapter. These later photos are not of a scientific advancement made possible by the Curies' research, as one might expect given the supposed subject of the preceding chapters, but rather record a life marked by the flipside of radioactivity. The photos show Sadae Kasaoka, circa 1945 and 2008, and accompany her testimony of her

Images of this page are available from the New York Public Library: http://exhibitions.nypl.org/radioactive/.

father's death in the Hiroshima bombing (Redniss, 2010: 84-85). The reality effect of these photographs is particularly highlighted in contrast with the earlier forms of representation employed by Redniss. In a sharp departure from the previous chapters' hand-drawn illustrations reproduced by cyanotype, this chapter includes photographs, typeset documents, maps, and scientific diagrams. These documents become increasingly overlaid with commentary, becoming palimpsests of image, notation, error, and correction. A photo is obscured with the pinpricked 'rough proof' and 'must be returned' (Redniss, 2010: 77). An FBI file, Xeroxed, becomes more objet d'art than document, as the smudges, stamps, handwritten marginalia, copious markings meant to censor or correct, and irregular angles of the typewritten words make reading difficult (Redniss, 2010: 78). Layers of bureaucracy, secrecy, and national history are made visible by the smudges and evidence of multiple copies made, and the overlapping and contradicting stamps act as a clustered but inchoate system of signs that makes the Xerox much more a purely aesthetic object than a semantically meaningful one. The banality of the information conveyed by the text of the file only draws more attention to the aesthetics of the Xerox, focusing readers on form rather than content. The crossings out and layers of stamps become a kind of bureaucratic rock record of surveillance and worries about leaking, contamination. As media historian Lisa Gitelman describes it, the form of the Xerox ultimately serves to destabilize the content of that copy even as it vouches for verisimilitude. It may be 'frozen on the page' but 'the paint is never dry' as the copy can always be recopied, reiterated (Gitelman, 2014: 100). In this sense, the Xerox is the form par excellence for thinking about what Radioactive demonstrates about representing the Anthropocene; this Xeroxed file, nearly illegible yet still having the indexical force of a government document, makes information density both an epistemology and an aesthetic.

Here likewise emphasizes how information density is an accompanying aesthetic experience of the Anthropocene and its temporal accumulations, accelerations, and ruptures. Like the mix of cyanotype, photography, maps, and illustrations in *Radioactive*, McGuire's investment in overlapping forms of knowledge and

information density comes by way of aesthetics. As Here moves through time and between fiction and nonfiction, the style of the panels shifts between abstraction and realism and between watercolor, pencil, and recognizable comic. McGuire separates the panels by temporal clues like the changing styles of clothing or interior decorations, but also by the changing styles of representation. A panel dated 1623 is composed in blurred but detailed watercolor, while an earlier panel, dated 8000 BCE, is drawn with a much simpler charcoal pencil. Broadly speaking, where the narrative appears to invite a declensionist reading (the house, flooded, eventually destroyed), the aesthetics appear to tell a progressive story, moving from simplicity to complexity, from clouded abstraction to comic realism. But that apparent narrative is repeatedly undone by eruptions of a past style into a present image or by several competing aesthetics within one frame. In one series of panels, dated 1933, figures drawn in watercolor appear against the backdrop of a realistically rendered domestic interior, somersaulting in a small panel overlaid across several scenes and spreads until, finally, the figure instructs us: 'don't look at me.' McGuire also uses these overlapping panels as a form of imaginative archaeology. In 1986, students inform a homeowner that her property 'may potentially be an important site' of 'Native American culture' while panels overlaid on this scene, dated 1622, depict (presumably) the indigenous people those historians now study. One effect of McGuire's aesthetics of temporality, of his use of information density to convey and impact time in the text, is that time becomes a spatial phenomenon. One disembodied hairline and hands, dated 2014, asks, 'where did the time go?' Another pair of hands, floating in a panel nearby, framed so as to include only the gesture and the speech, appears to respond: '... just down the street.' A later spread is structured such that the noise of a doorbell appears to travel backwards, with the 'DING. DONG.' dated 1986 prompting two indigenous lovers in 1609 to react, as though they heard a noise just outside the edge of the panel.

Panels are often proleptic, visually anticipating accidents and catastrophes that later panels will reveal. Approximately fifty pages in comes the first explicit acknowledgement of the two scales of time operating in the novel: geologic and human.<sup>16</sup> Dated 1999, four women sit gathered around a television where several speech bubbles announce: 'In eight million years, with its fuel supply running low, / our sun will start to swell in size, becoming a red giant, / . . . Engulfing the orbits of Mercury, Venus, and our earth.' One of the young women, watching the TV, responds 'Glad I won't be around for that.' In this initial explicit collision of the planetary and the domestic, the limited scope of the chronologies thus far leaves these two timelines as separate as this young woman's comment and the visually fractured speech bubbles imply.

Indeed, the first glimpses of the near future are unremarkable and quotidian, depicting an arm, pointing at something out of the frame and an interior filled with modernist furniture and a flat screen TV (dated 2015, a year after the book's publication). In subsequent pages, the chronologies become ever more expansive and eclectic. In a panel dated 2050, the first representation in the printed text of a time beyond 2017, two men are seemingly engaged in playing a virtual reality game obviously reminiscent of the visual structure of Here itself. Floating squares of different sizes and colors enable imaginative time travel, as one man sticks his head through a square and his face is transformed into that of a young boy. While, on the opposite page, dated 1986, an awkward grad student is shown wearing a shirt with the appropriate confession: 'Future Transitional Fossil.' But, suddenly, the text moves from recognizable domestic scenes in the 2010s, to meta-commentary and self-referential allusions in 2050, to what Lee Konstantinou has called 'a marsupial of some sort, maybe the lovechild of a large possum and a small kangaroo' in 10,175 AD. As Konstantinou writes, the animal is at once 'so ordinary, so unthreatening' and yet 'unsettling' and 'alien,' because 'with this innocuous panel, McGuire opens up a new continent of time' (Konstantinou, 2015: n.p.).

With this appearance, the stability of panels and the home within them seems to collapse. As in *Radioactive*, when geologic time becomes neighbor to human time, a

Determining 'pages' in McGuire's Here is difficult, and next to impossible if the eBook is considered as a kind of secondary text or paratext for the printed book, where the interactive design allows panels to be shuffled at will and assembled in new groups and sequences at the click of a reader's finger.

formal breakdown ensues and chronologies proliferate uneasily among a more-thanhuman visual inventory. The pages immediately following show windows breaking (c. 1983), shoelaces snapping (c. 1991), a fatal argument (c. 1910), a mirror shattering (c. 1949), paint spilling (c. 1990), and someone falling off a ladder (c. 2014). With increasing density, Here presents a series of events that are, like the slow violence that Nixon describes, 'incremental and accretive, ... calamitous repercussions playing out across a range of temporal scales' (Nixon 2011, 2). These repercussions culminate in a spread that collects insults (1950–1985), domestic accidents (wine glasses, plates breaking, 1943-1982), and, almost unnoticed in this dense cacophony of minor incidents, a flood bursting through the window of the home, dated 2111 (Figure 2). Later panels will show a full two-page spread (again, overlaid with other incidental occurrences) of water, suggesting a flood large enough in scope to obliterate the house itself. The waters continue to rise as, dated 2126, a hammerhead shark swims by seen from below. The next few panels frame this loss in domestic, minor terms: the loss of an umbrella (c. 1923), wallet (c. 1932), keys (c. 1959), earring (c. 1994), car (c. 2222), dog (c. 1937), and then eyesight (c. 1951), hearing (c. 1962), self-control (c. 1996), and mind (c. 2008). The litany is reminiscent of Elizabeth Bishop's villanelle, 'One Art,' where the loss of keys and watches becomes the loss of cities, rivers, and a continent and the domestic scale becomes the planetary.

These collections of minor disasters surrounding the flood make these pages the densest and most complex of the text, both visually and chronologically. It is as if McGuire's response to impending calamity, to being 'out of time,' is to create a temporal inventory, quilting together these fragments of time in anticipation of running out.<sup>17</sup> In one of the final pages of the book, dated 2313, with a first-person shooter perspective not repeated elsewhere, a gloved hand holds up a radiation meter while, in the background, anonymous figures in biohazard suits drag

This visual complexity also has the effect of slowing down the reader. As Eric S. Rabkin argues 'time in graphic narratives . . . is controlled, among other ways, by the degree of information density and representation immediacy in each frame' (Rabkin, 2009: 38). The aesthetics of density have also been marshaled by another form of 'slow media': the museum exhibit. In 'Three galleries of the Anthropocene,' Robin et al make an analogy between the slow food movement and the 'slow media' of a museum of the Anthropocene.



**Figure 2:** 'Drip.' McGuire, R., 2014. *Here.* New York: Pantheon Books. Available at: http://theaccountmagazine.com/wp-content/uploads/2015/05/Fig-5-3.jpeg.

a tarpaulin.<sup>18</sup> These are futile attempts to impose order on this landscape, it turns out, as a panel dated a year later appears to show the tarpaulin blowing away in the wind. Visually, these gestures resemble picnickers attempting to snag a blanket. Yet the quotidian postures are complicated by the framing that works to make these human subjects anonymous, faceless, and fleeting. Sure enough, these human chronologies are entirely absent from the panel dated 22,175 AD, the latest date depicted in the text. In this far future, hummingbirds commingle against a backdrop of lush, vibrantly colored pink flowers and large dinosaur-like figures. In 2006, the human desire for communication, a disembodied speech bubble asks, 'Hello? I didn't hear a beep. I hope I'm leaving a message.' The panels present a cluster of potential

<sup>&</sup>lt;sup>18</sup> The anonymity of these suited figures bears a striking resemblance to those depicted in Marina Zurkow's 2012 animation *Mesocsom (Wink, TX)*, which plays with scale and shade to dwarf faceless human figures within a colorless landscape (cited in Morton, 2013: Plate 7).

forms of communication, from a child bent over to whisper to an adult, to a mouth framed by the television, to the hummingbirds angled towards one another with beaks almost touching. Yet the visual lexicon of comics undoes the expressed hope of 'leaving a message,' as the jagged edges of the speech bubble clue readers that the speech is mediated and cannot belong to any of those mouths pictured. Thus, while the aesthetics of temporality inherent in the graphic novel form allow and encourage collisions between planetary and domestic scales, these collusions do not infer narrative closure.

#### Closure

Because 'comic panels fracture both time and space, offering a jagged, staccato rhythm of unconnected moments,' readers must make intuitive and interpretive connections between the panels, what Scott McCloud calls *closure*: 'closure allows us to connect these moments and mentally construct a continuous, unified reality. . . . If visual iconography is the vocabulary of comics, closure is its grammar' (McCloud, 1993: 67). Closure is also the grammar of the Anthropocene; 'observing the parts but perceiving the whole' (Chakrabarty, 2009: 63) is an interpretive act essential both when perceiving the Anthropocene and when reading comics.

For comics that lack traditional gutters between panels, *Here* and *Radioactive* are surprisingly invested in exploring and challenging the interpretive act of closure and the aesthetics of rupture. As I will argue, the role of closure in *Here* and *Radioactive* is to visually enact, again and again, the process of assembling and connecting domestic and planetary time scales. The aesthetics of *Here* and *Radioactive* serve to both illustrate anthropogenic impact on the environment and nonhumans, as well as to reveal how considering humans as a geologic force impacts narrative structure. In other words, the juxtapositions between panels and the aesthetic ruptures within and between panels both make and trouble connections between domestic and planetary narratives.

This is especially foregrounded by the eBook, which enables readers to click on smaller panels, attempt to follow narrative threads or conceptual groupings (for example, the path of a small black cat), but, in that process, denies any broader narrative coherence. Here's narrative is closure by way of zeugma, drawing connections through accumulation and acceleration. While the way in which the scattered panels and timelines of Here endlessly flirt with and reject narrative closure seems readily apparent, the biographical frame of Radioactive makes this tendency slightly more obscured. Yet Radioactive is no more 'closed' than the variegated timelines of Here. For example, within several pages the text jumps from the early 1900s, Marie trying to 'rebuild a life' after Pierre's death, to, in the next paragraph, with no visual cue, Chernobyl's reactor explosion in April 1986, then to Marie's love affair in 1910, then to 1956. Two adjacent pages make an implicit connection between the exposure of an extramarital affair and the exposure of nuclear tests. A wife's threat to make love letters public, revealing Marie Curie's and Paul Langevin's affair, is bookended by an interlude that connects this reveal to the problems of evidence and representation with which Radioactive is so clearly interested: 'the consequences of such a disclosure were plain: without evidence, the affair was merely a theory, invisible and unproven' (Redniss, 2010: 129). The next two-page spread begins, abruptly, with an excerpt from an interview with Mongi Abidi, a professor who 'helps the United States protect its nuclear secrets' (Redniss, 2010: 130). Abidi's stated goal of surveilling the nuclear weapons complex is to 'make sure there is no foul play,' a claim challenged by the next page, a full page devoted to a photo of a pinhole camera used to secretly photograph the 1956 nuclear tests that so contaminated Bikini Atoll. These tests, emblematic of anthropogenic destruction, are made visible by way of an image that shows not the islands, but the camera that photographed them. This camera, like Radioactive's bricolage of maps, charts, government documents, and illustrations, produced an indexical trace of the contamination. Redniss thus calls attention to the means by which slow violence is recorded, visualizing the instrument rather than the environment.

This approach reflects a larger investment of *Radioactive* in the process by which narratives are constructed, both material and rhetorical. As Redniss notes in an appendix describing the fickle and laborious process of making the cyanotype images that appear in *Radioactive*, cyanotype printing is both an indexical method,

in negative, where blue appears in the absence of a substance blocking UV rays, and also a material linked to exposure, to these lingering timelines. Prussian Blue capsules are used as treatment for internal contamination by radioactive cesium and radioactive thallium (Redniss, 2010: 199). But like the brief instant captured by a photograph, the form of the graphic novel does not allow the narrative to linger. The next page, the text cuts back to the early 1900s, as Marie Curie works to determine the rates of radioactive decay. These transitions are often startling, provoking the nagging sensation that one might have accidentally skipped a page.

Redniss repeatedly returns to these nuclear tests, a shadow, second chronology running alongside the Curies' biographies. Two-page spreads move from a duel between Marie Curie's lover and a journalist in 1911 France, to Nevada in 1957 at the onset of the atomic tests. She refers to Dr. Jonas Frisen's realization that 'the atomic tests conducted between 1945 and 1963 had time-stamped the DNA of every human being on earth' (Redniss, 2010: 180), echoing a proposed start date for the Anthropocene and emphasizing how those tests impacted both the biologic and the geologic. The successive image, a charcoal rubbing of the Curies' headstones, provides another kind of time-stamp. But what this brecciated, contaminated biography suggests is that 'time-stamped' is too straightforward a concept to contain the lasting impact of these Anthropocenic materials on biography and, more broadly, narrative itself. As Redniss notes, 'the Curies' laboratory notebooks are still radioactive, setting Geiger counters clicking some 100 years on' (Redniss, 2010: 183), a textual companion echoing the biological aftereffects.

These anecdotes are connected neither by characters nor geography, chronology nor ideology. Rather, it is the 'aesthetic that creates a narrative' (Baetens and Frey, 2015: 114), as the frames, the affordances of the graphic novel form, hold these pages together. In their colliding, ruptured, and densely overlaid scales, *Here* and *Radioactive* both point out that the experience of time in the Anthropocene is necessarily an experience of brecciated rather than linear time.<sup>19</sup> Decisions, gestures,

For more on brecciated time, see Victor Burgin's In/Different Spaces: Place and Memory in Visual Culture. Christopher Breu's Insistence of the Material also draws on Burgin's 'nicely materialist metaphor'

sounds, routines, and domestic objects have implications both forward and backward in time. In marking the complex, material processes of time, *Here* and *Radioactive* present domestic and planetary timelines that are nonlinear, looping and relooping as acceleration and accumulation change geologic time in the face of the ever-increasing environmental impact of the Anthropocene.

#### Conclusion

In some ways, *Here* and *Radioactive* are odd choices for an article aiming to consider environmental graphic novels. These are texts where literary character and aesthetic form are in peril and at risk, not necessarily the planet.<sup>20</sup> What these graphic novels make clear is that just as writers are challenged to rethink the capacity and scope of familiar literary devices like character and setting in the face of humans acting as a geologic force, so too visual artists must reconsider the nature and impact of visuals. As a phenomenon that is most often represented in satellite images, time-lapse photography, and virtual reenactments, the Anthropocene has a visual culture that is so prevalent and ostensibly objective as to be easily overlooked, like water in water. Both scientific and impressionistic images can participate in aestheticizing environmental destruction or in asserting 'human dominance over the planet' (Anderson, 2015: 346). Writing of Monet's 1873 painting, 'Impression: Sun Rising,' Nicholas Mirzoeff reminds us that the beauty of the painting is industrial, not pastoral:

Coal smoke pours forth from the smokestacks of the steamers clearly depicted at the left middle ground of the painting. It generates the set of sense impressions that gave first this painting, and then an entire movement, its name. Coal smoke is yellow, the yellow that predominates at the top of

usefully: 'within a brecciated conception of time and space, then, dynamics like accumulation by dispossession or biopolitics do not have a single history or a single temporality but are rather spatially and historically recursive and dynamic, as they are shaped by and intersect with distinct forms of materiality and material practices' (Breu, 2014: 31).

<sup>&</sup>lt;sup>20</sup> As comic artist Chris Ware writes of *Here*, comparing McGuire to Joyce and Nabokov, '*Here*, similarly, is in a way 'footnoted,' but is a footnote unto itself, in which the narrative development is entirely the result of poetic and happenstance juxtapositions – not a linear reflection of the experience of time itself (Ware, 2006: 5).

the painting. In the early morning, it encounters the blue morning light and the red of the rising sun, producing the array of refracted color that makes Monet's painting so stunning (Mirzoeff, 2014: 222).

Here and Radioactive include images that may at first glance seem similar to Monet's beautiful coal smoke. Here's soft, sketched blues of a world underwater after years of ecological crises and Radioactive's delicate, saffron-colored clouds depicting the first nuclear test present moments of anthropogenic calamity that seem both natural and beautiful. In these impressionistic visuals, because of the single image that is unbracketed, time is arrested. As McCloud writes of images that 'bleed' off the edge of the page: 'time is no longer contained by the familiar icon of the closed panel, but instead hemorrhages and escapes into timeless space' (McCloud, 1993: 103). Yet these images are not timeless, but timely. In making the process of assembling and accumulating the planetary and domestic scales so cumbersome and apparent, McGuire and Redniss show us the seams of the visual culture of the Anthropocene. Given that both the Anthropocene and the graphic novel seem likely to continue to spark conversations across disciplines and in the public sphere, this article serves as one point among many in this accumulating record of the literature of the Anthropocene.

### **Competing Interests**

The author has no competing interests to declare.

#### References

Alaimo, S., 2016. *Exposed: Environmental Politics and Pleasures in Posthuman Times.*Minneapolis: University of Minnesota Press.

Allaewart, M. and Ziser, M., 2012. Preface: Under Water. *American Literature*, 84(2): 233–41. DOI: https://doi.org/10.1215/00029831-1587332

Anderson, K., 2015. Ethics, Ecology, and the Future: Art and Design Face the Anthropocene. *Leonardo*, 48(4): 338–47. DOI: https://doi.org/10.1162/LEON\_a\_01087

Baetens, J. and Frey, H., 2015. *The Graphic Novel: An Introduction.* New York, NY: Cambridge University Press.

- Biello, D., 2015. Nuclear Blasts May Prove Best Marker of Humanity's Geologic Record [in Photos]. *Scientific American*. Available at: https://www.scientificamerican.com/article/nuclear-blasts-may-prove-best-marker-of-humanity-s-geologic-record-in-photos/.
- Boes, T. and Marshall, K., 2014. Writing the Anthropocene: an Introduction. *The Minnesota Review*, 83: 60–72. DOI: https://doi.org/10.1215/00265667-2782243
- Breu, C., 2014. *Insistence of the Material: Literature in the Age of Biopolitics.*Minneapolis: University of Minnesota Press.
- Buell, L., 2003. *Writing For an Endangered World: Literature, Culture, and Environment in the U.S. and Beyond.* Cambridge: Harvard University Press. DOI: https://doi.org/10.5749/minnesota/9780816688913.001.0001
- Burgin, V., 1996. *In/different Spaces: Place and Memory in Visual Culture.* Berkeley: University of California Press.
- Cavavero, A., 2016. *Inclinations: A Critique of Rectitude.* Palo Alto: Stanford University Press.
- Chakrabarty, D., 2009. The Climate of History: Four Theses. *Critical Inquiry*, 35(2): 197–222. DOI: https://doi.org/10.1086/596640
- Connolly, W., 2017. Facing the Planetary: Entangled Humanism and the Politics of Swarming.

  Durham: Duke University Press. DOI: https://doi.org/10.1215/9780822373254
- Crutzen, P., 2002. Geology of Mankind. *Nature*, 415: 23. DOI: https://doi.org/10.1038/415023a
- Decker, J., 2014. Art and the Environment. In Decker, J. (Ed.), *GYRE: The Plastic Ocean*. London: Booth-Clibborn, n.p.
- García, S. and Campbell, B., 2015. *On the Graphic Novel.* Jackson: University Press of Mississippi.
- Gardner, J., 2016. Serial/Simultaneous. In Burges, J. and Elias, A.J. (Eds.), *Time: A Vocabulary of the Present.* New York: New York University Press, pp. 161–76.
- Ghosh, A., 2016. *The Great Derangement: Climate Change and the Unthinkable.* Chicago: University of Chicago Press. Kindle edition.
- Gitelman, L., 2014. *Paper Knowledge: Toward a Media History of Documents.* Durham: Duke University Press. DOI: https://doi.org/10.1215/9780822376767

- Guarnaccia, S., 2015. Noted: Reflections & Process: *Here* Richard McGuire. *Varoom*, 32(28): n.p.
- Heise, U., 2016. *Imagining Extinction: The Cultural Meanings of Endangered Species.* Chicago: University of Chicago Press. Kindle edition. DOI: https://doi.org/10.7208/chicago/9780226358338.001.0001
- Higgins, D., 2016. Slow Weird Reverse Colonization: Warren Ellis and Jason Howard's *Trees. Paradoxa* 28 (Special Ed.: Global Weirding), 28: 113–34.
- Klein, R., 2013. Climate Change Through the Lens of Nuclear Criticism. *Diacritics*, 41(3): 82–87. DOI: https://doi.org/10.1353/dia.2013.0015
- Konstantinou, L., 2015. A Theory of 'Here.' The Account, 4: n.p.
- Lewis, S. and Maslin, M., 2015. Defining the Anthropocene. *Nature*, 519: 171–80. DOI: https://doi.org/10.1038/nature14258
- Marshall, K., 2015. What Are the Novels of the Anthropocene? American Fiction in Geologic Time. *American Literary History*, 27(3): 523–38. DOI: https://doi.org/10.1093/alh/ajv032
- McCloud, S., 1993. *Understanding Comics: The Invisible Art.* Northampton, MA: Tundra Pub.
- McCloud, S., 2000. Reinventing Comics. New York, N.Y.: Paradox Press.
- McGuire, R., 2014. Here. New York: Pantheon Books.
- McGurl, M., 2013. Neither Indeed Could I Forebear Smiling at My Self: A Reply to Wai Chee Dimock. *Critical Inquiry*, 39(3): 632–38. DOI: https://doi.org/10.1086/670049
- Mirzoeff, N., 2014. Visualizing the Anthropocene. *Public Culture*, 26(2): 213–32. DOI: https://doi.org/10.1215/08992363-2392039
- Morton, T., 2013. *Hyperobjects: Philosophy and Ecology After the End of the World.*Minneapolis: University of Minnesota Press.
- Nixon, R., 2011. *Slow violence and the Environmentalism of the Poor.* Cambridge: Harvard University Press. DOI: https://doi.org/10.4159/harvard.9780674061194
- Nixon, R., 2014. The Anthropocene: The Promise and Pitfalls of an Epochal Idea. *Edge Effects*, n.p. Available at http://edgeeffects.net/anthropocene-promise-and-pitfalls/.

- Rabkin, E., 2009. Reading Time in Graphic Narrative. In Tabachnick, S.E. (Ed.), *Teaching the Graphic Novel.* New York: The Modern Language Association of America, pp. 36–43.
- Redniss, L., 2010. *Radioactive: Marie & Pierre Curie, A Tale of Love & Fallout.* New York: Harper Collins.
- Redniss, L., 2015. *Thunder & Lightning: Weather Past, Present, Future.* New York: Random House.
- Robin, L., et al., 2014. Three Galleries of the Anthropocene. *The Anthropocene Review*, 1(3): 207–24. DOI: https://doi.org/10.1177/2053019614550533
- Shaviro, S., 2011. Hyperbolic Futures: Speculative Finance and Speculative Fiction. *The Cascadia Subduction Zone*, 1(2): 3–15.
- Steffen, W., et al., 2015. The Trajectory of the Anthropocene: The Great Acceleration. *The Anthropocene Review*, 2(1): 81–98. DOI: https://doi.org/10.1177/205301961 4564785
- Szasz, F.M., 2012. *Atomic Comics: Cartoonists Confront the Nuclear World.* Reno: University of Nevada Press.
- Trexler, A., 2015. *Anthropocene Fictions: The Novel in a Time of Climate Change.*Charlottesville: University of Virginia Press.
- Ware, C., 2006. Richard McGuire and Here: a Grateful Appreciation. Comic Art, 8: 5-7.

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