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Haste and Waste in the City:

Rekindling Care about and for Trees in Another Time

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Abstract

Environmental time is one of the most pivotal yet least explicated issues raised by anthropogenic environmental change. This essay contributes an understanding of this issue by exploring the temporalities of ethical regard and disregard for trees in the context of urban timescapes. The exploration of ethical urban temporalities is organized around three digital artistic interventions focused on Paris (One Heart One Tree), New York City (PopUP Forest), and London (Trees on Sidewalks). These interventions are examined as ecocritical case studies, which aim to confront and subsequently rearticulate human-tree relations, using the city as a material and symbolic site to facilitate ecological awareness and disruption. Each case study is discussed with respect to how environmental time is at once magnified and muted, foregrounded and marginalized, by a given intervention, whose timespan and relationship with the temporalities of urban living are as much ethical considerations as is the temporal logic of capitalism that mediates against inhabiting human-tree relations with care and consideration. The use of digital media in each case is discussed with respect to how the interventions differentially make urban ecological temporalities (in)visible. The essay suggests ways in which the interventions stimulate reflection on employing digital media technologies in art, research, and everyday life to make empirically accessible and theoretically meaningful the elusive but substantial role of time in facilitating human care about and for trees.

Keywords

Anthropocene, care, digital, ecocriticism, environmental art, time, trees, city

Introduction

In 1982, 7000 four-foot tall basalt columns were placed on the front lawn of the Museum Fridericianum in Kassel, Germany. The basalt stones were key pieces of a planned urban sculpture, 7000 Oaks (7000 Eichen), conceived by the artist Joseph Beuys, who envisioned planting 7000 oak trees in the city. For each tree planted, a stone was to be removed from the lawn and set beside a corresponding tree. Explaining the sculpture's local purpose to promote "green urban renewal" ("7000 Oak Trees"), Beuys said: "I think the tree is an element of regeneration which in itself is a concept of time. The oak is especially so because it is a slowly growing tree with a kind of really solid heartwood" (qtd. in Demarco 46). Since its completion in 1987, the living art sculpture has been adapted on more modest scales by other cities, keeping alive Beuys's overarching vision of a future when "the world [would be] a big forest" and "towns and environments forest-like" (Demarco 46).

Beuys's artwork and urban-inspired ecological vision are stimulating topics to introduce an essay that seeks to make intelligible and vital, the ethical task of reimagining the place of trees—and a place for trees—in cities, together with the place of cities in ecological thinking. While taking to heart the possibility that cities may foster both nonhuman (tree) and human flourishing, I argue for attending more closely to how, as Gary Snyder observes, cities may be "exclusive in the matter or who and what they give shelter to" and tolerate (12). I propose a temporal ethic of care that problematizes the pace of life and horizon of development that underwrite urban capitalism. Whereas capitalist production pivots on the "efficient management of the present" and the objectification and homogenization of time to achieve future goals (Puig de la Bellacasa, "Making Time" 700, 692-93), care "requires attention and fine-tuning to the temporal rhythms of an 'other' and to the specific relations that are being woven together" (704-05). In turn, I argue that Beuys's proposed task of remaking urban landscapes and asserting their role in enacting trans-local social and environmental change requires attending to the specific type and quality of encounters with trees that urban timescapes encourage. Following Barbara Adam, I understand "timescape" to signify the weave of temporal rhythms that characterize particular creatures, things, or societies in particular places and eras (10). I select three ecocritical case studies to examine the digital and aesthetic mediation of

¹ Other sites that have adapted Beuys's sculpture include Baltimore (Philpot), Minneapolis ("Walker"), New York City ("Joseph Beuys"), Oslo (Lowenstein), Paris (Ackroyd and Harvey), Scotland (Wendling), Sydney (Cooke), and Venice (Healy). An exception is Ireland, where 7000 native Irish oaks were planted on the Hill of Uisneach (Strauss).

environmental time in Paris, New York City (NYC), and London. I select these cities for both their status as iconic world cities, long situated at the forefront of urban capitalism, as well as their ties to recent environmental campaigns that promote planting and appreciating trees, both around the world (in the case of Paris) and in their respective urban environments (in the cases of NYC and London).

I begin by discussing why temporal thinking is central to rereading ethical urban-tree relations in the Anthropocene, and with what implications for caring about and for trees. Thereafter, I address criticisms of the use of digital media and digital art to engage with environmental activism and promote ecological understandings. Through the three case studies, I show how a material ecocritical approach adapted for digital analysis can help make human-tree relations visible, matter, and contestable. I conclude the essay with reflections on the usefulness of time and care for narrating the city in terms of human-tree relations.

Thinking Agency, Time, and Care in the Anthropocene

As the proposed name for the current geo-historical epoch, the term "Anthropocene" is frequently invoked to highlight the devastating ecological impact of humans' "unprecedented resource use and waste generation" (Seitzinger et al. 787) over the past 150 years. In particular, increased fossil fuel consumption and deforestation during the ascent of industrialization in the latter part of the 1800s and the proliferation of information and communication technologies and creation of international free trade networks post-World War II (a time period also known as "the Great Acceleration") (Bonneuil and Fressoz 50-52) are emphasized as pivotal historical culminations that, among other pernicious effects, led to the release of large amounts of CO₂, N₂O, and CH₄ gases into the earth's atmosphere, warming the earth for centuries to come (Steffen et al. 850, 854).

Given these facts, recent scholarship on the Anthropocene stresses that thinking ecologically requires thinking temporally. Thinking temporally here entails activities other than devising temporal metaphors to dramatize the stakes of taking environmental action to protect the future of life on Earth (e.g., "[a]t the current rate, 20 per cent of the planet's species will have disappeared by 2030," Bonneuil and Fressoz 7) or monitoring a doomsday ticker that warns individuals: "The world is in trouble, but it's not too late" to take action to avert a 2-degree Celsius rise in the global average temperature (*The Countdown 2° Clock*). Whereas these examples imagine environmental time as a set of divisible, abstract quantities projected into a future, "the conception of time as linear, externalised, and absolute" effectively

mutes the possibility for other-than-human timescales to exist (Bastian 99). Positing an "external nature, slow, immense" and "infinitely old" (Bonneuil and Fressoz 30, 204), fails to come to terms with the fact that human and nonhuman "lives knit into a kind of collective landscape architecture" (Purdy 607, 22), which is enacted, moreover, through more-than-human agencies. Accordingly, scholars have foregrounded the task of rethinking history as a "marriage" (Harrison 208) of human and nonhuman timescales and forces (Chakrabarty 214; Moore, "Anthropocene or Capitolocene?" 3). As Christophe Bonneuil and Jean-Baptiste Fressoz assert: "If our future involves a geological swing of the Earth into a new state, we can no longer believe in a humanity making its own history by itself" (33).

It follows that the designation of the Anthropocene, far from establishing the primacy or the privileged place of the human, is meant to precipitate a shift into postanthropocentric thinking (Zylinska 20; Castree 240-41), where this designation should function "first and foremost as an ethical pointer rather than as a scientific descriptor" (Zylinska 19). The Anthropocene, far from "a simple question of fact" (Purdy 2), directs critical attention to reimagining nonanthropocentric ways of perceiving and valuing ecological others and environments (6-7). Michelle Bastian argues that "when one understands time as agency, seeing nature as without significant changes, without time, is to also see it as without agency" (102-03). In the case of thinking ethical urban timescapes of human-tree relations, appreciating the timescales of nonhuman natures encourages an awareness of trees as ethical subjects in cities and cities as places orchestrated by tree and human agencies. At the same time, it is necessary to highlight the element of contingency in how these agencies evolve and are acknowledged. The Anthropocene is not simply the doing of humankind, much less a "fictitious human unity" (Moore, "Capitalocene" 4). It is the result of deciding that humans should live in particular ways, and in relation to ecological others. A recognition of the element of historical contingency in patterns of consumption and production (Chakrabarty 216-17) has led some scholars to persuasively argue that it was subscribing to a specifically profit-oriented system of capitalism which "represent[ed] time as linear, space as flat, and nature as external" (Moore, "Capitalocene" 4), that "swung the Earth system into the Anthropocene" (Bonneuil and Fressoz 222).

From a temporal perspective, challenging the role of capitalist productive processes in mediating urban moments of relation with nonhuman nature involves interrogating "the linear temporal logic of capitalist production" as a logic that does not make time for "care time" (Puig de la Bellacasa, "Making Time" 691). Tellingly, time for caring is not only excluded from "the frenetic pace of life" because "giving

and receiving care involves slowness: 'being there'" (Wajcman 14, 129). More fundamentally, care has not historically been considered an economically legitimate labor activity (Puig de la Bellacasa, "Making Time" 707). In contrast to capitalist time, care time cannot be mapped as a linear progression. Rather, it varies in kind "depending on who or what is being cared about" (Johns-Putra 129; emphasis removed). Nor can it be abstracted or objectified, as caring demands attention to the relational, felt, and material aspects of encounters with "all kinds of others" (Whyte and Cuomo 235). To analyze the potentials of digital artistic interventions in terms of expressing and mobilizing concern, I understand care in terms of what are generally agreed to be its two fundamental senses: care *about* (an attitude, feeling, or otherwise disposition of care) and care for (a practice) (Held 42; Tronto 194, 118-19). In both of these senses, I take care to be an agential force (Johns-Putra 126, 134), which brings certain kinds of carers and subjects of care into being at the time of care (Puig de la Bellacasa, "Ethical Doings" 163). By choosing to emphasize care as the enactment of a dynamic more-than-human agency rather than the exercise or bettering of a preconceived relation as such, I am suggesting that care be understood in this essay as participating in imagining and recrafting urban timescapes and environments—at the same time that it appears to arise or take place in a pre-given city. In the next section, I develop this reasoning by arguing that the digital mediation of care merits attention as not only an activist undertaking, but also a material and ecological force.

Digital Ecocritical Methods: The (In)Visible Matter of Urban Timescapes

In using digital media to orient critiques of urban timescapes of care, I am aware that my receptive attitude toward the eco-activist potentials of digital media may be unpopular with scholars skeptical of the use of digital media as an agent of change. Such scholars contend that digital activism, the "use of digital technologies—mobile phones and Internet-enabled devices, for example—in campaigns for social and political change" (Joyce vii), condones "a technological form" of "easy-come easy-go politics where you are only ever one click away from a petition (clicktivism)" and are seduced by design into "shift[ing] focus from one issue to another or one website to another with little commitment or even thought (slacktivism)" (Fenton 44).

Whereas these contentions may prove true in certain cases, it is necessary to consider the specific societal contexts of technology appropriation and use.²

Some studies show that constructive and skillful uses of such digital platforms as Twitter (i.e., beyond tweeting the minutiae of one's daily routine) can advance efficacious forms of environmental politics that conjoin individual and collective action. Alex Lockwood, for example, discusses how UK residents, with no local or community ties, banded together with Twitter from October 2010 to February 2011 to successfully protest the UK government's plans to sell and privatize ancient woodlands and forests of scientific interest. Observing how the protest formed through residents' responses to one another's tweeted feelings and concerns, Lockwood argues that microblogging platforms may afford an effective means of expressing "real and symbolised love for trees" to further environmental activism (51). Other notable examples include the use of web campaigns and social media platforms to mobilize the public to protect the Tasmanian native forest (Wallis and Given), protest the Keystone Oil Pipeline (Hodges and Stocking), and participate in climate protests (Segerberg and Bennett).

Apart from social media, many scholars are examining digital gameplay, focusing on the ways it may not only influence ecological understandings but also inform the design of sustainable environments (Chang; Klisanin 1124). In the case of tree planting, for instance, a variety of mobile (e.g., Tree Story Game), social media (e.g., Ecotopia), and web-based games (e.g., JohnnyAppl) have already been used to plant hundreds of thousands of trees (e.g., the Korean game *Tree Planet* alone has funded the planting of half a million trees). Other creative uses of digital media include more specifically art installations and applications. The *Indeterminate* Hikes+ mobile phone application aims to represent "un-wild environments in new ways" (Nadir and Peppermint 175) through app-led walking tours that remap a physical space as a series of spontaneous encounters, such as photographing "something wild that may not be here tomorrow" ("Indeterminate Hikes+"). The artist-activist creators of the app seek to "reappropriate smartphone technologies, which are generally used as devices for rapid communication and consumerism, as tools for meditation and slowing down" (Nadir and Peppermint 177). A final intriguing example is the work of artist Char Davies, whose installations have sought to undermine a three-dimensional Cartesian environmental aesthetic and thus, the experience of an objectified environment, by matching a spectator's breathing pattern

² This line of reasoning is developed at length with respect to digital activism in Earl and Kimport; see also Fenton 26; Segerberg and Bennett 198, 213.

to their experience of a simulated environment, such as a forest stream (Davies and Bailey).

These examples of creative and strategic uses of digital media suggest an entwined discursive and material function of environmentally themed digital activism and art, especially to disrupt and renegotiate ways of treating environments and reimagining ecological understandings (Holmes; Keifer-Boyd). I would argue, therefore, that the study of digital media in this context necessitates a material ecocritical sensibility (Alaimo, "Material Engagements" 71), whereby such media are understood not only as tools for human communication and manipulation, but environmentally (Heise, "Unnatural Ecologies" 165; Peters 2-5, 8, 14), with morethan-human material effects-e.g., electronic waste, or e-waste-(Maxwell and Miller 331-32, 336-39). Given that different and even identical digital media may yield dissimilar environmental outcomes, I select three aesthetic interventions that employ overlapping but also distinct modes of mediating human-tree relations. While all three interventions mediate timescapes of care, they have unique goals for what the digital medium should do, namely, coordinate collective environmental action (Paris), promote nature appreciation (conservation education) (NYC), and conduct urban environmental research (London).

In choosing to analyze these cases together, I endeavor to demonstrate how a comparative set of cases and the combination of different methods can enable a coherent account of digitally mediated timescapes of care as multidimensional material ecologies. To show how and why the various digitally mediated imprints of environmental time matter, I propose an extension of the existing ecocritical category of waste by articulating the digital mediation of timescapes of care through the category of haste. As Serenella Iovino explores in the case of Naples, waste has many ecological ethical inflections:

We can in fact talk of *waste* which denotes loss, dissipation, missed opportunity, desolation, imperfect consumption, interrupted potentiality; "waste" means an unrealized past, a past which is not "perfect" (*perfectum* meaning, in Latin, "fully completed," "finished"). We can talk of *trash* (or *rubbish*): something to which no future is bestowed, the meaningless, the filthy, the impure, the contaminating. Finally, also in reference to humans, we can talk of *outcast*: something thrown out, excluded, discarded, cast out,

indifferent to future. Within the city, also nature (and natural life) can be a form of outcast. (341; emphasis in original)

In addition to representing a historical sign of what has mattered, waste is a reminder of what must matter, such as the need to admit and deal with the products of human waste, whether manufactured or biophysical, lest we humans begin to "imagine ourselves as rarefied rational beings distinct from nature's muck and muddle" (Alaimo, *Bodily Natures* 8). Waste, too, implies a manner of regard for nonhumans, as well as humans deemed unsavory, surely below the threshold for ethical consideration. In synthesizing the timescapes of care about and for trees suggested in each case study, I accordingly use waste as a material correlate to the category of haste. That is, waste mediates the interpretation of material imprints as quantities and qualities of care time. To show that "there is never a time in which the human can be anything but trans-corporeal" (Alaimo, *Bodily Natures* 12), I trace how the pace and rhythms of human actions always matter in ways that are more-than-human.

To make timescapes of human-tree relations materially perceptible, I start from the premise that, akin to "hyperobjects," nonlocal phenomena, such as global warming, which cannot be grasped or even fathomed on a human scale, but rather and yet, "leave footprints everywhere" (Morton 88), human-tree relations are comprehensible neither in their entirety nor as a generic phenomenon. Instead, they become partly "legible through the[ir] many imprints" upon the human perceptual field (Biemann 124). These apparent imprints embody particular histories of coming into form that can only ever be implied (Morton 91).

The content and form of the "imprints" vary depending on the intervention. The first two case studies (Paris and NYC) are similar in that they are based on specific digital artistic interventions and their accompanying online campaigns. Both campaigns are also being waged over the Internet, where their interventions can be experienced (Paris) or previewed (NYC). For these two cases, I analyze multimodal forms of data from online publicity (e.g., weblogs, news articles), social media feeds (e.g., Facebook, YouTube), and the campaigns (e.g., campaign websites, Kickstarter). I examine how the interventions use various communicative forms (images, video, text, sound) to construe the temporal limits and range of action, responsibility, and concern that interdependently characterize each city's implicit and apparent relationship with trees.

In contrast to the first two case studies, which seek to ascertain how preconstructed interventions afford and promote time to care about and for trees, the

third case study is designed to be more exploratory and reflective, indicating opportunities digital media may introduce for witnessing real-time temporal flows. Nonetheless, this study also constitutes a response to recent large-scale planting campaigns in London ("For the Love of Trees"), and in this response, echoes the other two case studies' focus on recent initiatives centered on tree planting and care. For this third case, I adapt Walter Benjamin's dialectical materialist method, whose aims are both critical and constructive, not only picking apart the givenness of what is captured through the technological lens, but with the intention of remediating the past to encounter the present in a non-habituated way (Benjamin 471). I use digital photography to visualize timescapes of care for closer viewing. As I elaborate in this case study, these visualizations, along with my own reflections, narrate my ethnographic walks through the city observing humans' encounters with trees.

Over the next three sections, I discuss each case study in turn, followed by a reflection on the use of digital media to debate and affect the possibility of caring well about and for trees in cities.

One Heart One Tree, Paris

One Heart One Tree (1H1T) is a new media citizen artwork conceived by Parisbased Belgian-Tunisian artist Naziha Mestaoui. Launched in Paris in 2015, it is an ongoing effort to foreground and interlink concern for forests and climate change by "transform[ing] some of the world's most iconic monuments into forests of light" ("1 Heart 1 Tree Goes Global") through a global tour scheduled to begin in 2017 (Facebook message from *1H1T*, 28 June 2016), featuring possible visits to New York City, Rio, Seoul, San Francisco, Dubai, and Hollywood (Mestaoui). It originated as One Beat One Tree (1B1T), an interactive digital art installation that has been running since 2012.³ IBIT senses each spectator's pulse as they stand before a screen. The pulse is rendered as a cool neon green digital tree, which results in a tree being planted through one of the organization's seven partnering forestation projects in Australia (biodiversity), Senegal (ecosystem restoration), India (island reforestation), Peru (rainforest protection), France (agroforestry), Brazil (indigenous reforestation), and the Ivory Coast (reforestation). So far, participation in 1B1T has financed the planting of 15,000 trees across these projects (1 Heart 1 Tree, "Seed of Light" section).

³ For a demonstration, see "One Beat One Tree."

In its newest form as *1H1T*, *1B1T* is now a smartphone app, which prompts users to select one of the seven planting projects, then asks, "Are you ready to generate your own seed of light?" Users are subsequently instructed to "Concentrate on your tree and breath consciously" while placing their finger on the phone's camera sensor, which records their heartbeat. The app displays a pulse and tree readout on the phone screen just as the readout would appear on the large screen in 1B1T. With the app, though, users can add their name and a positive message after purchasing a tree for 10 euros. Citizen participation from November 29 through December 4, 2015, turned the Eiffel Tower into "a forest of light" (1H1T Facebook page; for a day-byday replay, see 1 Heart 1 Tree, "Replay" section), illuminated in green by the names and messages of smartphone users, who together funded the planting of 55,000 trees in less than a month. The event was endorsed by such international figures as UN Secretary General Ban Ki-Moon (1H1T Facebook page) and celebrities such as Leonardo DiCaprio (IH1T Twitter feed). The event also involved the active work of ambassadors including environmental philosopher Ervin László and Felix Finkbeiner, the youth pioneer of the UN Environment Program's Billion Tree Planting campaign (see 1 Heart 1 Tree, "Ambassadors" section).

From the perspectives of urban environmental time and care, a few aspects of *1H1T* are interesting. First, in the move from *1B1T* to *1H1T*, the artwork became mobile, carving out new urban and virtual niches of encounter by reaching individuals in locations beyond Paris. To this end, the choice of the Eiffel Tower, which one writer called "the emotional heart of Paris" (Peltier n. pag.), as the site of projection seems particularly symbolic when considered alongside the timing of the projection, which followed the November 13th terrorist attacks and preceded the December COP21 Climate Change Conference in Paris. In one respect, therefore, the project suggests that hope for a greener, more peaceful future can be planted, so to speak, through solidarity in Paris and beyond, echoing Beuys's own vision of a world forest.

Second, in gaining mobility thus, the artwork appears to be tying the urban more generally to care about forests and environmental futures. Mestaoui's conviction in the *1H1T* project's power "to synchronise our heartbeats to collectively inspire our future" (*1 Heart 1 Tree*, "Presentation" section) echoes throughout social media comments. Consider how the following tweet (Fig. 1) favorably frames Mestaoui's intent to seamlessly turn virtual reality into living reality:



Fig. 1. 1H1T Twitter feed.

The figurative interlacing of human artifacts with trees and a seed with the pulse of a heartbeat presents two issues worth commenting on. The first issue concerns the ethics of representing care time as if it could be resolved through digital time, with an essential question being the probable longevity and earnestness of involvement. The brief duration of the projection—a few days—gained anticipatory momentum through online and social media, which account for the significant turnout (via phone) over the course of a few weeks. Does this turnout and the 1H1T movement exemplify "presentism," as Rob Nixon has perceptively underlined in pondering the possible pitfalls of digital eco-activism? As digital media become incorporated in more facets of work and non-work life, Nixon reasons that digital media play a profound role in "how we perceive and inhabit environmental time" (Nixon 277). He suggests a tension between how social media such as Twitter encourage "presentism," or valuing what happens now (as Twitter prompts users, "What's happening?" and invites them to "[s]ee what's happening right now"), and the need to stretch humans' temporal horizon beyond the present to address environmental issues effectively (277).

By raising this issue of the plausible durability of concern and activism, I am not implying that the *IH1T* event and app did not prompt care or make time for care. Rather, I am attempting to tease out the temporal and caring affordances of *IHIT*'s use of Twitter, the digital art projection, and the smartphone app. Clearly, the duration of the app experience is not exactly conducive to developing a nuanced understanding of the awareness that the *IH1T* campaign seeks to raise regarding the situation of deforestation, its links to climate change, and the interconnectedness of living situations and livelihoods around the world. Users are most apt to experience an abbreviated temporality of action that may last only a few seconds, both in one's palm as one purchases a tree and upon a cultural monument, which flashes one's name and message, after which the image promptly dissolves into dormant code. By

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contrast, the act of planting, which requires preparation and tending to, and the task of orchestrating and completing the planting projects, are actions lasting days to months to years. Such actions, like digital actions, are reduced in the *1H1T* campaign to a timescale of visible moments, illustrated through snapshots and social media updates. As this aesthetic of readily digestible information exemplifies "the kinds of glancing reading and viewing that the Internet engenders" (Houser 331), it is reasonable to wonder if, in fact, the campaign is too firmly hitched to an abstract, linear sense of time. When the smartphone app was first released, individuals around the world were invited to install and spread the word on Twitter and Facebook, as the following tweet (Fig. 2) urges:

1Heart1Tree @1Heart1Tree · 3 Dec 2015



Fig. 2. 1H1T Twitter feed.

This tweet was undoubtedly intended to excite users into backing the *1H1T* cause. Against the backdrop of a profusion of click-to-care campaigns in recent years (e.g., www.care2.com) and criticism that such campaigns exemplify neoliberal

attempts to foist social and environmental responsibility upon individuals while trivializing (even as they profit from) individual action (Büscher 729, 734-37), it is possible to read the *1H1T* campaign as exploiting the ease of embedding itself in the routine digital immersion of the average user. With "the now" becoming increasingly enveloped by digital media actions and experiences (Crary 127-28), it would be convenient to argue that *1H1T* is failing to disrupt the capitalist ethic of making each moment productive (Agger), such that any time invested in caring about trees through the app is a unit of time that could be traded for any other. This cynical perspective, however, misses the unique temporal calibration that, in addition to the awareness raised about tree planting and the opportunities to donate, is perhaps the most promising feature of the *1H1T* app and the *1B1T* installation.

Like Davies's breath-based installation works mentioned earlier, 1H1T arguably builds a sympathetic bridge between a human heartbeat and the growth of nonhuman (tree) life. Certainly, the campaign could do more to foreground tree agency, as its rhetoric of "the virtual becomes the real" is predicated on a certain human control of the future: "It is the heartbeat of a person that gives birth, through technology, to another life, a tree" (1 Heart 1 Tree, "Presentation" section). By comparison, consider the long-term sculpture endeavor, Beuvs' Acorns, curated by the artist duo Heather Ackroyd and Dan Harvey, who have gathered and planted hundreds of acorns from the trees planted in Kassel. The duo headlined a series of public discussion events over three months before the 2015 Paris climate talks, culminating in a "tree ceremony," which featured a single evergreen oak tree symbolizing a prime "actor" in a collective civic effort to address "an urban drama of increasing temperatures, damaging flood waters, polluted air and bio-diversity loss" (Ackroyd and Harvey). In strategically naming trees as social, environmental, and political actors and making time for the tree, this eco-art endorses a narration of cities as more-than-human agencies, while embracing an ethic of planting in which care about the tree is rendered through a post-anthropocentric gesture.

1H1T showcases an encouraging and innovative use of digital media to expand understandings of the urban environment beyond cityspaces and times. Nevertheless, it remains to be seen if future *1H1T* performances can better acknowledge the time and agency of trees.

PopUP Forest, New York City

PopUP Forest (PF) is a month-long digitally mediated artistic installation planned for NYC's Times Square in May 2017. It aims to redirect attention from the

commonly cited "benefits" of the urban canopy (Hartig et al. 128-29), such as shading and cooling pedestrians and buildings, cleansing atmospheric impurities, improving well-being and mood, and brightening the city's veneer, toward an immersive experience of a forest habitat. PF was conceived and is being coordinated by the organizers of NYC's Wildflower Week (NYCWW), an annual event celebrating the city's 778 plant species, led by NYCWW founder and urban conservation biologist Mariellé Anzelone (PopUP Forest; for a preview and summary, see Anzelone, "Build a PopUP Forest"). With the assistance of digital and networking technologies, the sounds of the nearby Inman Hill Park will be streamed live into the exhibit, which aspires to foster ecological awareness, concern, and wonder in residents and visitors within a public plaza. The plaza strikes Anzelone as perfectly poised to deliver an emotional "punch" ("The PopUP Forest Project") by ""[g]rabbing public space, and setting up a forest in the most incongruous place imaginable" (qtd. in Core n. pag.), a place etched into the public imagination as the commercial heart of NYC (PopUP Forest), an image the PF seeks to soften by providing "a neighborhood's worth of living, breathing nature" ("The PopUP Forest Project").

A distinguishing feature of the *PF* campaign is its aim to "give nature a voice" (Anzelone, "Build a PopUP Forest"), underscoring the city's situatedness in a forest ecosystem. This attempt to let nature speak does not ascribe environmental agency to humans to change the terms of how trees and humans coexist in the city. Instead, it appears that humans are being asked to learn to hear the forest, a recurrent theme in Anzelone's work on urban forest issues beyond the PF campaign. In a series of seasonal pieces for The New York Times on urban nature in NYC, her language reconstructs the experience of being in the forest surrounding the city, while teaching readers about ecological processes and the subtle visual and biochemical changes that announce the dawn of a new season. In the following excerpt of a piece on the impending arrival of winter in Inman Hill Park, one feels gently yet generously led into uncommon territory. While visible to the average human eye, this snapshot of the park withholds a significance that Anzelone's eye is trained to impart: "Mosses creep up the trunks of trees. Mosses spread along the surface of stones. Mosses blanket the flat distance in between. These primal plants have been here all along the park has the largest expanse of mosses in Manhattan—but we were busy charting changes in more recently evolved flora" (Anzelone, "Visiting a Forest"). Her writings, while thoroughly descriptive and educational, are infused with an activist appeal to overwrite the image of NYC as "Skyscraper National Park" (Vonnegut 74; PopUP Forest), changing how urban denizens and city planners imagine the city, as

a place of abundant and lively nonhuman natures: "We can define New York City as a city, full stop, or more expansively to include places for chestnut oaks to grow, places for metallic sweat bees to buzz and places for us to take it all in. . . . Go outside, and watch it unfold" (Anzelone, "Manhattan Forest"; ellipsis added).

The city's poetry materializes in Anzelone's intellectually grounded yet sensuously evocative accounts of the continual, tiny, and geological transformations in the urban forest landscape. The forest is not something humans primarily plant and create; on the contrary, it grows into its place in the city. An emphasis on the inclusion of tree temporalities in narrating a sense of place is similarly asserted by geographers Owain Jones and Paul Cloke, who compare how "three tree-places" in England transform over the course of a century or longer (93-94). Interweaving photos and historical research, they illustrate how "the active materialities and capacities of the trees have been significantly influential, not only on how sites have developed but also on human practices and performances within them" (93; see also 88-92). In *PF*, a consonant regard for tree capacities is evident. Not just plots in space or trunks of wood, trees, *PF* stresses, "are alive" (*The PopUP Forest Project*); they act, move, and can be sensed—in time. Likewise, care about and for trees itself is meant to grow "over time," such that "people . . . care to the point where they are also vested in this future, and speaking for the trees" (Anzelone, Interview n. pag.; ellipsis added).

In thus arguing against the normative urban (dis)regard for trees as "urban infrastructure instead of a biological thing" ("The PopUP Forest Project"), *PF* offers a counterbalance to the focus on trees as ecosystem agents and members of human habitats by the city's now completed MillionTreesNYC planting campaign, which involved governmental employees, non-profit organizations, and city residents planting a combined one million trees along streets and in green spaces to meet sustainability targets ("About MillionTreesNYC"). More specifically, *PF* helps show that there is a relationship to be had *with* trees and nature more generally. However, *PF* does not then link this relationship to making time to care for trees *in* the city, which is part of a broader issue mediating against the campaign's aspiration to breach the city's environmental timescape permanently, exacting "long-lasting changes where urbanites see, talk about, and are connected to local biodiversity" (Anzelone, "Build a PopUP Forest").

Whereas the aim to unpack the city as an urban natural environment is repeatedly claimed throughout the *PF* campaign, curiously, recognizable cultural symbols and city monuments, such as the Statue of Liberty, are nowhere mentioned in Kickstarter, publicity, and social media. This effective erasure of the urban from urban nature sits awkwardly with the professed sincerity in undermining the

contradiction between city and forest that Anzelone believes is etched into residents' urban imagination. For instance, Anzelone confesses her own naiveté prior to pursuing urban ecology in college and later as a career, when she believed very little nature existed in the city—or could exist, especially in NYC. Anticipating that Anzelone's experience is not unique, the organizers hope to remind New Yorkers that "[n]early 1/8 of the Big Apple is forests, marshes, and meadows, more than any other city in North America" (PopUP Forest). The personal narrative interwoven with statistics makes for a sincere, informed appeal to reconsider NYC as more than an artificially constructed environment. Nevertheless, the campaign does not integrate visions of the city with those of the forest, inadvertently reinforcing an antithetical relation between trees and cities. At times, to be sure, PF appears to argue for a more capacious understanding of nature that admits "products of human action and intention" (Snyder 9). Yet these products seem to be in tension with a surrounding nonhuman environment, as in the assertion that the re-emergence of flowers, plants, and trees in urban landscapes is a "signal of hope in a concrete landscape" (Anzelone and Hollender n. pag.). Although this assertion gestures to the fact that "beneath the structures of civilization" is already "a world of wild nature" (Benfey 124), a heightened sensitivity to the forest is not then tied to a renewed sense (and narration) of place. In other words, greater engagement with and awareness of trees and the forest are not thereafter used to narrate the city as a place for trees. Thus, although PF depicts the city more fluidly, opening it up—analogously to the Indeterminate Hikes+ app—to surprising meetings with unexpected nonhuman elements and encounters, it does not amply justify how the city and forest coincide. Specifically, the times and experiences of the urban and the forest are inadequately linked. Apparently, for residents to learn how to "love" trees (Anzelone, Interview n. pag.), they must leave the city rather than experience it differently.

PF has received requests for an installation and expressions of interest from "Istanbul, Lima, London, Hong Kong, and Paris" (Anzelone, "Build a PopUP Forest"). If *PF* travels, the project's desire to bring the forest back to the city stands to share an experience of environmental time displaced from its servitude to urban capitalism. Still, it must make a stronger case for how a temporal interval can irrupt, not simply pause, the city's fast-paced, concrete environment.

Trees on Sidewalks, London

Trees on Sidewalks (TS) proposes a research-based digital approach to studying the real-time flows and pasts of human encounters with urban trees in innermost

London. In contrast to the first two case studies, TS is based on my own critical and creative attempts to narrate haste and waste through digital photography. What I report here is a highly condensed distillation of photographic and handwritten field notes amassed over two three-month periods in central London from April through June 2014 and November 2014 through January 2015. From January through June 2016, I revisited the same areas, with similar findings. I chose areas that offered a selection of heavily frequented work, entertainment, and tourist spaces, including the South Bank, Bloomsbury, King's Cross/St. Pancras, Paddington, and the Strand. Whereas my field notes assume the form more of a photographic essay, my commentary inhabits a simultaneously personal and critical perspective, reflecting from a place of care, as researcher and urban inhabitant, on the method of digital photography for conveying and exploring urban timescapes of human-tree relations.

Excerpts from Field Notes

As a pedestrian adjacent to honking and jam-packed streets, I readily witness movement, mostly of human bodies, though some nonhuman animal bodies—dogs, horses, and rats, along with insects and birds—do appear. Moving yet more briskly are machine-assisted bodies: bicycles, automobiles, trucks, and sometimes a plane overhead, which appears, in its distance from the ground, to move more lazily than all the rest. Amid the incessant to and fro appear other structures and bodies that stand still; if they do move, it is too slowly to detect, overshadowed by the speed of the other, frantic movements. Trees are among the slowest, it seems. They are urban outliers, residing in a place where they are unwanted, or where they rarely enjoy hospitality. Trees pierced with pushpins and nails, in varieties of worn and rusted and freshly minted; needles with no purpose, needles without flyers and notices, needles jamming expired or forgotten advertisements into the tree. Trees embellished with hundreds of staples, stacked in columns as if arranged with practice (Fig. 3).



Fig. 3. Pins on bark, dangling keys. Photo taken outside the School of African and Oriental Studies on May 26, 2016.

Tree trunks, like lamp posts or common parking street signs, make handy resting places for plastic garbage bags and stable landmarks for pickup trucks. Loosely tied recycling bags nestle against the trunk, staying put even as half their contents are blown down the street, though some stay—so thoughtful they are—and keep the tree plot warm on a windy night. There is room for all creatures, inorganic and organic, processed and fecal, upon the soil that should nurture the tree. Cola, beer, juice, and water, in their plastic, glass, and aluminum shelters, kicked about until they roll exactly to the foot of a tree. Litter of all shapes and sizes, textures and densities, is a street tree's most faithful companion. Countless cigarette butts in a

single plot; perhaps they can evolve and decompose into soil-enriching matter (Fig. 4).



Fig. 4. A garden of cigarettes. Photo taken at Covent Garden on April 4, 2014.

And then, newly planted trees, supported at the waist till they are sufficiently old and seasoned to weather the litter storm that frequents the city during the day and stays the night, overstaying its welcome in a city too accelerated to notice. Though these trees, too, are home to temporary stays (Fig. 5). Invaluable practice for the years ahead—if they survive.

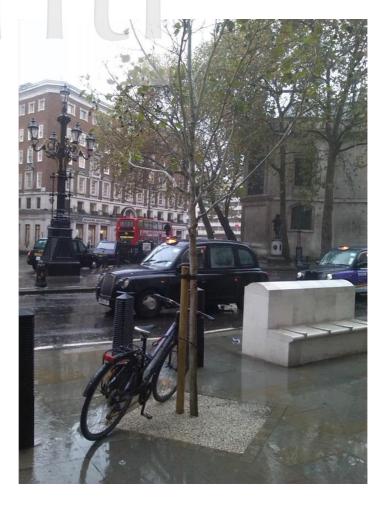


Fig. 5. A bicycle, wearied and caught in the storm, finds a tree to support its weight. Photo taken in front of the Royal Courts of Justice on November 3, 2014.

Commentary

Among major cities, London is well known for its green cover, which amounts to approximately 47% of the total area of the city ("Key London Figures"). London has more trees—8.3 million—than does any other city, a crucial statistic that has fueled the current proposal to grant London status as a National Park City ("The Proposal" 9). With nearly as many trees as people (8.6 million), human-tree relations

are vital to forming and comprehending the city's ecological outlook. My observations of passersby, however, suggest that minimal interactions occur. People pause, linger, and use a tree as they might a lamp post while waiting for a friend or scrolling through text messages on their mobile phones. Figure 5 is a testament to this obliviousness to trees as other than "street furniture" (*Streetscape Guidance* 207), mere design elements on a road or at an intersection. As an urban prop, the tree is not the living sculpture that Beuys envisaged would grow with and rejuvenate cities, but a symbol of decay and neglect.

At the same time, a peculiar irony persists in the kinds of treatment of trees that urban denizens do make time for. This irony is strongly suggested in figure 3. While the single pushpin for the key may serve some function (though an unreliable one, if the goal is safekeeping), the other pins arranged in clusters in two places higher up the bark (left and upper middle) seem not only cruel but senseless: why squander time that could be used to care by creating more caring labor to undo the lack of care (maiming the tree)? This photo urges an ethical response to the question of what matters and lives are cared about, enough to make time for them. The fact that the human imprints left on trees indicate a consistent lack of care time only agitates this urgency. Figure 4, for instance, suggests that no time is available to appropriately dispense with human refuse, or, alternatively, insufficient time to care about waste disposal.

While digital photography fulfilled a strategic aim in inferring the quality and extent of caring for trees, the limits of photographic capture and representation brought into question my own ethical relationship with and responsibility to the project. These limits suggested a way to take care and take time in studying and representing urban timescapes. In collecting traces of past human interactions with trees, I became aware of the need, specifically, to consider how photography can likewise regard the trees' agencies as living testimonies. Of the three photographs included here, figure 3 best articulates this ethical issue. In this photo, I endeavored to frame the tree as an active, strong, towering presence, not a passive victim of the harm done to it. To encourage keener attention to tree agency, it is worth spending time consulting depictions and images of trees that do take care in how they position the tree as an actor. John Constable's oil painting *Study of the Trunk of an Elm Tree*, pictured below, is instructive here.



Fig. 6. John Constable, *Study of the Trunk of an Elm Tree* (circa 1821); © Victoria and Albert Museum, London. Used by permission.

As Robert Pogue Harrison notes of the elm's posture in the painting: "It stands there as the embodiment of something that has come to appearance, . . . that somehow gives itself in itself before it gives itself over to representation" (208; ellipsis added). Analogously, continuations of *TS* might experiment with imparting a sense of the tree standing and growing for itself, for more-than-human reasons.

Showing care in re-presenting trees does not concern only methods. It is analytically significant that trees are overlooked on the urban sidewalk. Displaced in the blink of a footstep, the sidewalk concretizes the fact that capitalist time is everywhere afoot. As Karl Marx writes: "Capital by its nature drives beyond every spatial barrier. Thus the creation of the physical conditions of exchange—of the means of communication and transport—the annihilation of space by time—becomes an extraordinary necessity for it" (*Grundrisse* 524). As time rather than space thus offers a prime source of capital accumulation, the growth of capitalism itself requires speeding up the pace of human life (Luke 324-26), a requirement insinuated in the most trivial, though telling, of choices: the choice to remember to unpin an event poster from a tree trunk or to break one's fingernails while removing a stubborn nail. Urban dwellers must ask themselves, would they be as willing to accelerate their movements through the city if doing so meant leaving human bodies in such a state?

This question is made more urgent by the fact that these data on how trees are used and abused in London from 2014 are not temporally hermetic, but continue to haunt and characterize the city's practices and attitudes with respect to trees as recently, as similar artifacts, from cigarette lighters and broken liquor bottles to chewing gum and oxidized metals, can be routinely found encircling, resting against, or stuck (in)to trees. Setting an ecological agenda for caring about and for trees in London requires retaining, indeed retracing, past and habitual interactions. Enriching this exploratory mapping may involve a considered leveraging of other digital media. Considering an emerging class of digital apps for facilitating more sustainable urban environments and citizen action, such as mapping tools that rate the walkability of urban neighborhoods (Dörk and Monteyne 3), encouraging and exchanging the use of photographic and video footage of urban trees among a wider network of users and researchers may offer a useful means to share time for care.

Conclusion

"While space," Barbara Adam proposes, "is associated with visible matter and sense data, time is the invisible 'other,' that which works outside and beyond the reach of our senses" (9). This essay has worked to prove this association otherwise, showing, through three case studies, how time materializes in the spaces of encounter between human-tree relations. In their efforts to portray the timescapes of human-tree relations in relation to Paris, NYC, and London, the case studies suggest that the timelines and rhythms across which these relations are forged and unfold are precisely what require communicating and living in more material and affecting

ways. They encourage a nuanced appreciation of digital devices and platforms as among the "materials and technologies" that individuals increasingly use to "inhabit particular places" (Heise, *Sense of Place* 76) and that, by the same token, offer important aesthetic opportunities for reimagining a sense of place that fosters cohabiting with trees in cities in more meaningful, caring, and focused ways. Each digital artistic intervention represents a concerted effort to fracture the image of the city as a constructed human accomplishment by bringing into focus a more-than-human urban timescape. This effort is noticeable in, for example, the deployment of Paris as a material and symbolic vehicle for provoking responses to local and global incidents of deforestation and climate disruption; the appeal to NYC residents to slow down and sense the rhythms of the urban forest; and the use of digital photography to expose the waste accumulating in London on account, partly, of being out of step with tree time.

In these cases, the ecocritical matter of waste is, in an important respect, a call to act upon this awareness of unsustainable and ecologically polluting haste. It is a call to attune the city to the temporalities of trees as well as humans, and to the fact that "time entangles us all" (Rose 139), for there is no "away" in the Anthropocene (Morton 109). Attempts to escape may temporarily banish the experience of haste, while waste silently sounds an unmissable reminder. Reserving no time for care means withholding time to renew relations vital for life, boding a future when "[h]umans can no longer destroy [waste] but only be destroyed by it" (Bragard 462). Taking time to care means making time to narrate more-than-human "stories that awaken ethical sensibility in this time when so much is happening so rapidly and seemingly so unstoppably" (Rose 139).

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⁴ In early November 2016, I walked along a canal leading away from Paddington, where several transit links converge, supplying swift and ready access out of and into central London. There I noticed the following sign, advertising a new commercial development: "A waterside square/Relax by the canal, in/a traffic-free oasis, where/the pace of life feels that/little bit less frenetic."

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