

## Thinking the Feminist Vegetal Turn in the Shadow of Douglas-firs: An Interview with Catriona Sandilands

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Catriona Sandilands is an environmental literary critic and ecocultural scholar whose work brings together questions of ecology, gender, and sexuality, and multispecies biopolitics. She coined the term queer ecologies to describe and intervene in the manifold intersections running between sexuality, nature, and power in contemporary ecological conversations. The concept has made a powerful contribution to feminist and queer environmental scholarship, and to the larger environmental humanities. An intuitive gardener as well as plant scholar, she writes about plants in a unique way that pairs wonder about botanical materiality and evolutionary history with a concern about the biopolitical mechanisms that govern both vegetal and other, nonhuman and human, forms of life. Cate is a professor of environmental studies at York University in Ontario, Canada. She is the author of The Good-Natured Feminist: Ecofeminism and the Quest for Democracy (1999) as well as over eighty essays, reviews, journal articles, and chapters in edited collections. She edited, with Bruce Erickson, the muchcelebrated scholarly volume Queer Ecologies: Sex, Nature, Politics, Desire (2010); her edited collection of creative writing Rising Tides: Reflections for Climate Changing Times was published in September 2019. Marianna Szczygielska and

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Olga Cielemecka caught up with Cate on Galiano Island, British Columbia, to discuss the recent vegetal turn in the humanities, feminist commitments to critical plant studies, and the lessons to be learned from paying close attention to the plants around us.

Olga Cielemęcka: Research focused on plant life, agency, resilience, cognition, and communication, often inspired by new discoveries in plant science, is burgeoning in the humanities and arts. It seems that we are now witnessing a renewed interest in plants—a certain "vegetal turn." What are your thoughts on this "vegetal turn" and formation of the field of critical plant studies that followed from it?

Catriona (Cate) Sandilands: There's no question that there has been, in the past five or six years, a proliferation of works in the arts, humanities, and social sciences looking at questions of vegetal agency and at the ways plants are involved in constituting complex, multispecies worlds. I think some of the particular registers in which plants have become a topic of recent conversation are very much rooted in current scholarly work on posthumanism and "new" materialism. Six years ago, I would have said that there is a substantial body of work in critical animal studies on the one hand, and a body of work on vital materialism, following texts such as Jane Bennett's Vibrant Matter (2010), on the other, that plants were curiously absent in the space between the two conversations despite the prior existence of many wonderful, plant-related works in other areas of the humanities. Judging by the fact that there was an entire thematic stream pretty much devoted to plants at the recent biennial conference of the Association for the Study of Literature and Environment (ASLE) at UC Davis, this is clearly no longer the case. As often happens, plant life has filled in all the available spaces left open to it!

Olga: What are the roots of this turn to the plant?

Cate: I think this "vegetal turn" actually has many sources, not all of which are fully acknowledged in the loose field that seems now to be known as "critical plant studies."

Most obviously, this turn has been propelled by recently popularized research on plant intelligence and communication: works like Mancuso and Viola's Brilliant Green (2015) have gone a long way toward mainstreaming the idea that plants respond to their multispecies environments in "thinking" and "communicating" ways, rather than just, say, reacting to predators or stressors. This research builds

on the work of forest ecologists like Suzanne Simard, who have demonstrated the complex communicative and resource-sharing networks that species like Douglasfir (Pseudotsuga menziesii) engage in order to survive and thrive as communities, not just as individuals: trees, and plants more generally, actually process information and signal to one another, adapting in real, and not just evolutionary, time.

In a very different way, Michael Marder has also had a huge influence on conversations about plant-thinking and plant-being, here, focused on the ways in which Eurowestern philosophy has both included and excluded plants as participants in multispecies relationships of thought and practice. His book Plant-Thinking (2013) was very important: he brought the idea of vegetal philosophy into focus for a whole range of scholars in the environmental humanities and beyond. The debate between Marder and prominent animal rights lawyer Gary Francione (2012) on whether plants are sentient beings and should be understood, therefore, as subjects of moral consideration, is worth reading: I think it's a critical moment in terms of the collision between the concerns of critical animal studies and plant philosophy.

However, I think the current vegetal turn also owes a lot to other thinkers and practitioners whose work has not been as widely read and recognized in these recent, broadly posthumanist, plant conversations. I am particularly thinking about Indigenous plant knowledges and the careful, long-term work of ethnobotanists such as Nancy Turner to document them. Turner's work, primarily in western North America, has focused on supporting Indigenous communities to remember, reclaim, and recreate traditional plant knowledges. Her monumental, two-volume work Ancient Pathways (2014) is a condensation of a lifework of deep involvement in Indigenous—especially women's—plant knowledges and relationships. I am also thinking about the work of feminist historians like (Ann) Rusty Shteir and Londa Schiebinger, who have done incredibly important research on women's complex botanical knowledges and practices. Shteir's Cultivating Women, Cultivating Science (1996) is a rich excavation of British women's diverse botanical knowledge-practices in the eighteenth and nineteenth centuries, and Schiebinger's Plants and Empire (2007) is a key text for anyone who is interested in the global circulation of plants and plant knowledges. There are also established traditions of garden writing and criticism; plants also crop up in a plethora of literary works, of course, followed closely by plant-hunting critics. It's lovely to experience all of the newness in critical plant studies, and I definitely think that there are ways in which the "vegetal turn" in the arts and humanities is generating a vibrant, creative energy for thinking critically and creatively, for and

with plants. But, in all honesty, the vegetal has been "turning" for a long time, and the plants have never actually been forgotten.

Marianna Szczygielska: You've mentioned that the vegetal turn and critical plant studies as a defined field are following the earlier animal turn. We could consider both the animal and the plant turn as a part of a larger posthuman turn. What are the limits to this approach? More specifically, I'm thinking here about critiques from postcolonial or Indigenous studies perspectives of the kind of approaches that are perhaps too easily jumping into the idea of "becoming plant" and rid of the notion of the human. Do the substantial critiques of the posthuman turn also apply to the vegetal turn?

Cate: Indigenous scholars have expressed articulate and justified criticism of many aspects of the posthuman turn. Zoe Todd (2016), for example, wrote an excellent piece that called out Bruno Latour for his failure to acknowledge Indigenous thinkers for their "millennia of engagement with sentient environments, with cosmologies that enmesh people into complex relationships between themselves and all relations" (p. 6). This failure is, unfortunately, much more widespread, although as more and more Indigenous scholars insist on the ongoing and critical role of Indigenous knowledges to multispecies survivance (not to mention underlining the ongoing role of colonialism in the apocalypse against these millennia of enmeshed engagements, see Whyte, 2018), it is getting harder and harder for Eurowestern scholars to ignore these vibrant traditions as well as the oppressive academic politics in which they are marginalized. I confess that I haven't actually seen an Indigenous critique of the vegetal turn in particular, although this could just be my limitation. I would, instead, point out that some of the most influential contributions to critical plant studies are being made by Indigenous thinkers and/or speak to Indigenous Peoples' dynamic relationships with plants. I would single out Robin Wall Kimmerer, whose books Gathering Moss (2003) and especially Braiding Sweetgrass (2013) have had a huge impact on plant studies; I would also want to mention Eduardo Kohn's wonderful How Forests Think (2013), which takes us to a whole other realm of understanding of plant intelligence and communication. And those are just three of many!

As a white settler scholar, I think part of my responsibility is to pay sustained and respectful attention to these complex and abiding plant knowledges. However, I also think I am responsible for interrogating the ways in which settler-capitalist plant knowledges have had, and continue to have, such a negative impact on deeply enmeshed plant-people relationships. In the posthumanist rush to embrace notions of plant intelligence and communication—which, in general

terms, tend to demonstrate that plants are "like" people in fundamental ways there has been a tendency to overlook the biopolitical context in which these new knowledges arise: the relations of appropriation, expropriation, dispossession, and exploitation in which both plants, and Indigenous relationships to plants, are enmeshed. This has been the focus of a lot of my recent writing (Sandilands, 2016, 2017, 2018): What does it mean that we are talking about plant intelligence in a way that makes more and more plant capacities (e.g., communication by way of volatile organic compounds) open to commodification and exploitation, rather than in a way that takes genuine inspiration from thinkers like Kimmerer who insist on the ethical primacy of relationship and reciprocity in our dealings with vegetal "kin"?

Marianna: Another problematic issue concerns the idea of the progression of the turns, as if they are like waves in feminism, a temporalization that has been criticized for being linear and Western-centric. In terms of our relation to nonhuman worlds, these turns follow taxonomic order of kingdoms and, as you've pointed out, plants were initially omitted. What are your thoughts on that?

Cate: You can see in the popularity of Anna Tsing's wonderful book The Mushroom at the End of the World (2015), that there might be a fungal turn under way, which I suspect will be shortly followed by a protistan turn and a bacterial turn. In fact, the bacterial turn is already here, given the number of recent works that emphasize the ways in which human embodiment is always already a matter of ongoing bacterial labor!

If we want to begin with animal studies as a set of exemplary practices of multispecies "turns," then it is important to point out that the field of animal studies is already very diverse. Some animal studies scholarship is entirely hospitable to plant thinking: (diverse) plants are parts of multispecies communities in very different ways than (diverse) animals, and speaking about plural, complex entanglements does not diminish either the plants or the animals. I am thinking about Deborah Bird Rose's (2015) work on flying foxes in Sydney, here: flying fox lives—and deaths—are entangled with colonial desires for certain kinds of plant presence, notably in the Royal Botanic Gardens, in which a particular arrangement of plants is understood as antagonistic to bat cohabitation. Going at the relationship by way of the plants, here, reveals the complex biopolitics of the current situation in which both the bats and the exotic "heritage" trees can be heard and understood.

Other sectors of animal studies have, however, been fairly antagonistic to the idea

that plants may be worthy of thought: the debate between Francione and Marder that I mentioned enacts a situation in which rights are a zero-sum game, and any consideration of plants seems to diminish hard-won claims to animal sentience and moral/legal consideration. I understand Francione's argument, for sure, but from where I stand it misses the point: the fact that plants are worth thinking about, and with, does not mean that they demand the same kind of thought as animals (of course, Francione is not really talking about all animals, either, but that's another conversation).

I would argue that plants demand different registers of thought than animals: because they are so very different from people (not to mention from each other), plants ask us to think about ethics and politics in very particular, place-specific ways, in which we (people) are asked to contend with lively difference more than anthropocentric likeness. So will protista. So will bacteria. One size does not fit all. Biopolitically, however, animals, plants, protista, bacteria, and humans are increasingly being organized according to the same kind of the lowest common denominator--utility. Jeffrey Nealon's Plant Theory (2015) points out that there are ways in which all forms of life are increasingly being treated as vegetal. We are being gardened, not just in a metaphorical sense, but also quite literally: posthumanists should think about this as we enthusiastically participate in the activity of breaking down boundaries between species, genuses, families, and even kingdoms. What does it mean, in these biopolitical times, that life is harnessed to capital?

Marianna: You mentioned before that the vegetal turn is being fueled also by scientific interest in plants and especially in plant ecology, physiology, cognition, neurobiology, etc. I wonder what does this reliance on the production of scientific facts by certain strains of plant studies mean for redefining ideas about agency or animacy?

Cate: This is a question that, as a scholar of interdisciplinary environmental studies, I've been grappling with for much of my career: What are my responsibilities to environmental sciences, when environmental science is both a crucial source of (often ignored) knowledge and also a historically and institutionally specific understanding of "environment" that does not represent all there is to know about the natural world? I think it is very important for scholars in the arts and humanities to actually have a good grasp of the scientific literature. For example, I'm in the process of writing a fairly philosophical paper about an invasive species in British Columbia, Scotch broom (Cytisus scoparius). For this essay, I have sourced and read many, many works on this perennial shrub,

including a range of research articles from various places in the sciences and applied sciences—different fields of biology, invasive species management—as well as environmental history. I am interested in the histories and relationships of broom; I am also interested in the very particular ways that the species manifests as an "invasive," because not all invasive species work in the same way. I think it is absolutely my responsibility to follow scientific literatures on the plants and ecologies that concern me, but I also don't think it is my responsibility as a scholar in the humanities to be *driven* by any particular element of that science, as if my primary responsibility is simply to publicize "what the science tells us." I think I am obliged to talk about history, about culture and values, and about different kinds of botanical knowledge (literary, scientific, practical) as they also play a role in our understandings of the plant, and not just in the realm in which we "manage" it according to some combination of scientific research and humanistic valuecalculation.

At this moment, I am sitting in a little cabin in the middle of a Douglas-fir forest. It is absolutely wonderful that so many people today are learning, following Simard's and others' work, how Douglas-fir trees talk to one another and share resources. I find the idea that I am caught up in invisible networks of mycorrhizae extremely powerful both physically and metaphorically, and I think it's very important to walk in the woods—and also to make responsible use of Douglas-fir forest products—with a grateful understanding of these networks at the forefront of consciousness (Sandilands 2018). However, my job as a critic is not just to celebrate this connection: now that settler scholars have finally figured out that plants are intelligent, I need to ask, how are these knowledges deployed in the service of settler capitalism? Thinking about Jake Kosek's (2010) really interesting work on the militarization of bees, I wonder about the commodification of mycorrhizae, and I don't think that this is a question confined to speculative fiction (just look at Brilliant Green).

Olga: Which feminist genealogies are important for feminist critical plants studies? What does a feminist perspective bring to critical plant studies?

Cate: I think it is important to think about feminist plant studies because the material-biopolitical history of plant knowledges is profoundly gendered. I don't want to recreate that old hoary narrative about "man the hunter" and "woman the gatherer," but there are definitely ways in which plant knowledges have been associated with and are particularly important for women. This biopolitical history includes the association of herbalism with witchcraft, the use of plant material in textile production, and, of course, the central importance of plants as a stable

food source, as well as histories of imperial bioprospecting, the globalization of plants and plant knowledges, and agricultural industrialization.

You can see the entanglement of gender with botanical knowledge in colonialism, which is in turn entangled with the disciplining of botanical knowledges in Eurowestern knowledge systems. Schiebinger documents how Indigenous women in the Caribbean used Peacock flower (Caesalpinia pulcherrima) as an abortifacient in order to prevent their children being born into slavery. Despite the witness of German-born botanical adventurer Maria Sibylla Merian, these medical knowledges never made it to Europe, even though the plants themselves did (they are popular ornamentals to this day). At the same time, many privileged European women were actively encouraged in their botanical pursuits. With some notable exceptions like Merian, they tended to be engaged in plant-based activities that left them out of botanical history books that tend to be filled with conquests, whether of territory or taxonomy. According to Shteir (1996), many women, excluded from the increasingly professional scientific study of botany, appreciated plants through collection, gardening, and especially illustration, all of which were considered acceptable—even fashionable—activities for women at the time.

One of my favorite of these women is Mary Delany, who produced—starting at the age of seventy-four, which gives me hope for my own future—over one thousand paper "mosaics," which are cutouts of plants based on dissections of actual flowers. These mosaics are exquisite: each piece of the plant is composed of multiple, tiny pieces of paper, laboriously cut out and layered, fragment by fragment, on a black background, highlighting the substantive relationship between the plant-based paper and the plant it is shaped to represent. These mosaics are also gloriously sexual. Earlier than many in her period, Delany closely followed the work of Swedish botanist Carl Linnaeus, whose system of plant classification was based on a given plant's relative numbers of "male" and "female" sex organs. As Lisa Moore (2011) has pointed out, Delany's mosaics are not only scrupulously designed to demonstrate the truth of each plant according to this system, but also particularly lush in their colorful, unabashed revelations of the plants' individual sexual identities. Although Delany's work has been diminished as a mere popular footnote to the rise of modern botanical knowledges, I think it is not at all a stretch to consider her flower mosaic practice as something more than the conquest and taxonomy with which it is intertwined: it is, I think, an extraordinarily attentive exploration of the sensuousness of plants, involving the plants themselves—as paper, and as specifically represented, sexual beings—as active participants in the process.

Olga: What potential do you see here for feminist resistance towards oppressive structures of power?

Cate: The ethical and political project of thinking with plants as actors in networks of power relations means that we have to go beyond thinking about plants as metaphors to look at the specific, material ways in which particular people have relations with particular plants in particular moments, both as these relations may serve the interests of heteropatriarchal capitalism and as they might offer sites of resistance. It's not always easy to draw a firm line between practices that are resistant and practices that are co-optable. Part of what capitalism does best is that it takes all the good ideas and turns them to its own ends! The bioprospecting and patenting of Indigenous pharmaceutical knowledges is a perfect example (see Foster, 2017).

I want to attend to particular plants and particular kinds of plants in a way that recognizes both the biological and the political contexts in which this attention takes place. Returning to the Douglas-firs: I wonder about their communication networks, but I also recognize that they were the most important industrial tree species in the history of the colonization of this part of British Columbia. Their unique biological community was foundational in shaping the way that settler capitalism unfolded in the province. These trees grow pretty quickly and are very straight, so they're extremely useful for things like building material. If there hadn't been Douglas-firs, colonialism in this region of British Columbia would have unfolded differently. As it was, it was centered around logging (and fishing and mining, but these are others' stories to tell). Most of the timber involved in the construction of the cabin I am in is of the same substance as the trees outside the window. So my shelter and my aesthetic experience of the world are also shaped by my involvement with the plants. In the Hul'q'umi'num language spoken by the Indigenous people of this island, Douglas-firs are ts'sey'; in English, the tree was named after Scottish botanist David Douglas. Doug-firs are droughtresistant, meaning they will do reasonably well in the drier and drier climate of this eco-region. These are my many Douglas-fir entanglements: they are sensuous, but they are also political.

Olga: In your essay "Violent Affinities," you write, "The fact remains that ecological feminisms must respond especially to the ways in which posthumanist/multispecies identities, differences, relational performativities, and intercorporealities are enmeshed in both micro- and macro-political violences" (Sandilands, 2014, p. 95). Perhaps you could elaborate on the notion of violence

and the political and ethical commitments in your own plant research?

Cate: I don't think the relationship between the violence against women and violence against plants is metaphoric: it's metonymic, and it's intersectional. There was a strand of ecofeminist thinking at a certain historical moment that talked about violence against women and violence against the Earth, animals, plants, and soil as being essentially the same thing—"men's rape of the Earth," to draw on the title of one particular book (a book that actually makes a more sophisticated argument than its title suggests, I have to say, see Collard & Contrucci, 1989). Women are not plants, and Douglas-firs are not *Homo sapiens* (although they may be "people" in a more expansive understanding). Gender violence may focus and intersect with interspecies violence (and vice versa), but it is a mistake to imagine that they are the same. The appropriation of Indigenous women's botanical knowledge for profit is a good example: it does violence to the women and to the plants in very different ways. For example, depending on the species in question, it might involve the complete erasure of the women's knowledge traditions, but then the proliferation and commodification of a particular element of that relationship that would likely involve a forced multiplication of the species under new conditions. Understanding the specificities of misogynist and anti-ecological violence means looking at the concrete relationships through which entangled forms of violence proceed.

Olga: What is the role of fiction in uncovering this process?

Cate: Fictional works are often useful for helping us engage in this kind of entangled imagination. I have recently been thinking about two novels in particular: Shani Mootoo's Cereus Blooms at Night (1996) and Han Kang's The Vegetarian (2015). Both these novels, in very different ways, are about the relationship between sexual violence against women, and the violences done to plants and animals. In The Vegetarian, the protagonist is a young woman named Yeong-hye, and in Cereus Blooms at Night the protagonist is an older woman, Mala. Both are victims of misogynist violence; both withdraw into vegetal worlds in order to cope with/resist this violence (they become plants in one way or another); and, interestingly, neither narrates her own story of plant becoming.

In The Vegetarian, Kang depicts the ubiquity of misogyny and sexual violence. We are told at the outset—from a male perspective—that there is nothing extraordinary about Yeong-hye. And in many ways there isn't, except for her powerful response to the systemic violence that she experiences both at the level of casual sexism and at the level of being preyed on sexually and assaulted

physically by the men in her intimate life. She decides for ethical reasons that she wants to stop eating meat: she wants to stop participating in the metabolization of animal bodies. By the end of the novel, she stops eating altogether so that she is no longer participating in the metabolization of anybody. She just wants to photosynthesize: to be one of the plants with whom she identifies strongly, and with whom she is also—in her ordinariness and invisibility—identified and sexualized. Her desire to become a plant is a hyper-empathetic response to her understanding of how animals, plants, and women are treated alike in the context of carno-capitalism.

In Cereus Blooms at Night, Mala is subject to decades of sexual violence by her father and develops a strategy of active resistance to that violence by becoming part of the garden (earlier, she fails to poison him, which would have been a very planty form of revenge). She withdraws from language and learns the language of plants, insects, and molluscs. In fact, she enters into a conspiratorial relationship with them, particularly with the eponymous cereus plant, which protects her (as we find out) from the eyes of the community that chose to ignore her father's sexual violence, but would not overlook her resistances to it. Unlike The Vegetarian, Cereus Blooms at Night is narrated by a character (Tyler) who understands and sympathizes with the protagonist; not surprisingly, Tyler is gender-nonconforming, which leads them, I think, to a position of greater sympathy to Mala's species non-conformity.

Olga: The Vegetarian is such a troubling book because it puts forward the idea of photosynthesis as an act of resistance on part of the protagonist, but at the same time this likely leads to her death. I'm curious about your take on this kind of resistance that seems to involve signing out of the society and formulating a different language that can't be communicated to other humans.

Cate: I think one of the reasons why I'm so compelled by The Vegetarian is that it's so deeply uncomfortable. Yeong-hye is participating in an act of resistance, withdrawing from misogyny by becoming a plant (albeit a plant with some definite sexual agency), but also capitulating to this violence. In a way, women are positioned in the novel as always already dispensable, and Yeong-hye's chosen method of responding to this position is to embrace this position fully, perhaps even in its purest form. She is slowly killing herself as a plant, as a response to the fact that she is always already killable as a woman. I don't want to advocate this as a political strategy. But as a novel, I think The Vegetarian does an enormous amount of work to show us through Yeong-hye's experience that misogyny renders women vegetal, and that embracing vegetality is a complicated response.

Marianna: This troubling desire of becoming plant depicted in The Vegetarian is of a very different kind than a metaphorical longing for vegetal-like communication or form of being. If we think about plants and desire together, how much of a mediation is it of the human desire imposed onto the plant? And can we think about plant desire on its own terms? For example, we can think of human desire being accompanied by specific plants in very material ways—for example, by ingesting certain plants as aphrodisiacs or using flowers as a romantic gift. But also, what does it mean to think about desire in the context of neoliberal capitalism that we're living in and what does it entail?

Cate: One of the most important and interesting things that has ever happened to this planet is the evolution of angiosperms. The entire ecology and life cycle of flowering plants is oriented to the demonstration and satisfaction of plant sexual desire. The flower is a sex organ. It's inviting pollination, which is necessary to the ongoing sexual reproduction of the species.

Anybody who's interested in flowers—from Indigenous women nurturing camas meadows to Erasmus Darwin and his long poetic meditation on the sex lives of plants, to people who hybridize roses—is caught up in these webs of plant sexual desire, whether they think about it consciously or not. We are, in many ways,  $\alpha ll$ aesthetically, commercially, philosophically, and poetically entangled in the sex lives of plants, and servicing plant desire is pretty foundational to our repertoire of plant-related activities. Giving a lover a red rose means expressing desire by handing her the reproductive organ of a plant, but even planting a certain species of carrot and not another is also a sexual intervention (and not just metaphorically "fucking the earth," as Lorna Crozier [1985] put it in her poem suite about the sex lives of vegetables!).

Plant desire came first, evolutionarily speaking, and recent research about early hominids shows how different forms of social life developed around this nexus of relationships of plant desire. Gathering, burning, planting: these are all ways of organizing, and benefiting from, plant desire. One of my favourite plant books, ever, is Michael Pollan's The Botany of Desire (2001). Written before the current vegetal turn we talked about earlier, the book pushes people to rethink their assumption that we are "mastering" plants in cultivation, domestication, and agriculture. Using the examples of apples, tulips, potatoes, and marijuana, Pollan argues that the plants' demonstration of certain qualities—sweetness, beauty, control, and intoxication—is actually a way of getting humans to behave as their particular propagators and pollinators. Agriculture and cultivation are not only

about humans imposing their desire on plants; very cleverly, they are also about certain plants having a great deal of reproductive success because of their ability to speak to human desires that then cause us to further the plants' sexual desires and reproductive interests.

I think Pollan really understood his obligation (maybe even obedience?) to plants because he's a gardener, as he describes in his first book, Second Nature (1991). As a gardener, I think that paying attention to how our corporeal and other needs circulate around relationships to plant desire is incredibly important. I absolutely loved Botany of Desire because it was such a great exercise in overturning conventional wisdom that domestication is simply a form of violence against plants. But Robin Wall Kimmerer takes us even further: in order to have good relationships with plants—ones in which particular people thrive in relation to particular plants that also thrive—the key is reciprocity. We need to imagine who we are to plants and what we should do to tend to plant needs, and not just imagine what plants are to us and what we can get from them, as if they were an inexhaustible inert resource (i.e., the way Pollan describes industrial potatoes).

Marianna: From what you're saying, if we look at plants as desiring machines this also eroticizes scientific practices around plants, making science a deeply erotic enterprise!

But speaking about larger structures of power, gardening is often used as a metaphor for state planning, one that reflects control, order, and specific kinds of governmentality. For instance, Zygmunt Bauman (1989) used the metaphor of the "gardening state" to describe the biopolitical mode of rational governance characteristic for modernity inflicting violence through optimization of life. In the wake of what some scholars call "ecological modernity" (Dryzek, 1995; Christoff, 1996; Crowley, 1998) do you see any potential in talking about gardening as a site of resistance, a micro-practice developing at the peripheries of capitalism?

Cate: Gardening, like most practices, doesn't mean only one thing. I'm a big fan of growing food in and for communities. I was just reading recently about the establishment of a public food forest in a major city, which includes fruits and nuts available for people to pick whenever they want. I think that is very directly a way of thinking about gardening as an anti-capitalist practice: food for free for anyone who needs it. Gardening can also contribute to a deep awareness of and attentiveness to plants. I'm thinking here about Jamaica Kincaid's My Garden Book (1999). I think gardening can make one very aware of the way in which the migration of people, the migration of plants, and globalization of certain kinds of

plant species are intertwined.

But gardening is not only or inherently a practice of resistance to capitalism. Gardening has been used to displace people, to emphasize status, to create conditions of ownership and surveillance, to police public spaces, and to aestheticize private property. Hedges and decorative borders do spatial work that does not necessarily lead to community and solidarity!

Gardening affords possibilities for thinking people-plant relationships but I think it's really important to apply critical knowledges to that practice: to work with the plants, but to maintain an understanding of how and where the plants come from, how are they being used to establish certain kinds of naturalization and normativity, how they might be used to open up other kinds of relationships. Just planting indigenous plants is not enough to dislodge settler colonialism: it's the relationships—including the ongoing colonial ones—to which we have to pay attention.

Marianna: Let's turn to another gardening-related metaphor. With the most recent works of Donna Haraway (2016) and Anna Tsing (2015), composting became a potent material metaphor in feminist theorizing accounting for "surviving on a damaged planet" and "living in capitalist ruins." Jennifer Hamilton and Astrida Neimanis (2018) write about "feminist composting" as a new methodology for environmental humanities. Do you see this domestic practice closely connected to gardening and plant matter as a new ecofeminist quest for democracy?

Cate: Composting is a really generative grounded metaphor—I love the Hamilton and Neimanis article—and it is also a suite of practices that actually requires that you know something about soil communities and technologies of decomposition. Michelle Niemann (2019) presented an excellent paper on this very topic at the recent ASLE conference: compost is biological and historical, not just a nicely messy metaphor. In her book Matters of Care (2017), Maria Puig de la Bellacasa also talks about soil and engages with soil ecology as a suite of hands-on, practical exercises in thinking not just about compost, as compost, or like compost but rather with compost.

I think that if we understand composting as a biopolitical practice potentially in resistance to Bauman's "gardening state," or as a suite of multispecies encounters rather than as a metaphor for political work, we might actually go in interesting directions. For example, our relationships with worms in vermicomposting point

to specific ways in which our flesh will become compost. Thinking with and about compost as a biological and historical practice is a really interesting direction to think about in terms of repairing our generally terrible industrial relationships with soils.

In addition, I like the work that the feminist metaphor of composting does to animate queer, feminist futurities. Rather than think about giving the Earth to "our" children to inherit, what happens when we imagine ourselves as becoming compost for the world in an expanded understanding of generationality and ancestry (I acknowledge and respect my indebtedness to Indigenous understandings of being a good ancestor, here, as Winona La Duke, Melissa Nelson, and many others have described)? What happens when we imagine fleshy decomposition as another site for thinking about the intertwinement of biopolitical and material, ecological processes: How do I decompose well, how do I live a life in which I will become good compost (see Sandilands, in press)?

Marianna: Lastly, we wanted to ask you about your current projects. One of them is titled Plantasmagoria, can you tell us about it?

Cate: Plantasmagoria is a collection of my writings on plants that focuses on practicing some of the forms of thinking about human-plant relations that I've talked about today. It will start with two chapters that outline my understanding of the intersections of plant biopolitics and feminist plant politics, including my readings of *The Vegetarian* and *Cereus Blooms at Night*, and including the key importance of fiction and poetry as a place from which to think feminist plant relations. Following this opening, the book will consist of a series of plant-based assemblages that take as their focus particular plants and places to illustrate diverse modes of human/plant entanglement.

One of the chapters is going to be about mulberries, specifically, Morus rubra and Morus alba. Mulberries are a global species. I have argued elsewhere that the globalization of M. alba (white mulberry) was one of the first clear instances of large-scale anthropogenic botanical colonialism because the trees were a keystone species of the silk trade. This chapter is situated in Toronto and focuses on the ways mulberries end up drawing us into thinking about what it means to live as gendered beings in relationship to rather interestingly gendered plants as sexual beings (i.e., as queer kin). Mulberries are fascinating: they're both monoecious and dioecious, so some mulberries are male and female on the same plant, some are male and female on different plants, and some are both; they also change sex in response to environmental conditions. They're totally cool! But they

are also biopolitical subjects. For one thing, urban foresters and the horticultural industry don't like the female trees because they're really messy with all of those berries, and so the majority of the street trees are male (this is a big problem in some cities, because the male trees are also extremely allergenic during pollen season). In Southern Ontario, M. alba are also considered an invasive species, not only because they grow prolifically in disturbed areas (they are "weedy"), but also because they hybridize enthusiastically with the indigenous M. rubra, threatening the latter's species "purity" even as they increase the trees' overall resilience.

Another chapter, located here in BC, is about the Scotch broom that I have already mentioned. Broom is very clearly an "invasive" exotic species, and it is reputed to have been brought to this part of the world by British colonists who wanted to see a little bit of Scotland in their (stolen) backyards even though it is now almost universally reviled in western North America. Broom was key to botanical colonialism: it grows very well in disturbed soil, so it was intentionally planted along the corridors of power, such as hydro lines and roads, as a way of keeping infrastructural projects intact. It was also possibly used as packing material for whiskey bottles sent up to prospectors in the Gold Rush, and was internationally marketed as a garden ornamental. But it is now understood as an out-of-control aggressive invasive (it is a real disturbance-loving species), and there is broom everywhere, in all kinds of places where people don't want to see it, including in places in which it disrupts logging. The overwhelming push is to eradicate broom from the landscape as much as possible: I want to argue that for settlers to do so without going deeper into the botanical infrastructures of colonizing the province is another way of performing settler innocence via plant "purification."

Marianna and Olga: This project sounds very exciting and inspiring. Thank you so much for finding the time to talk with us and share your ideas with us and the readers of Catalyst.

Cate: Thank you both so much for your wonderful questions!

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