2020

Sensitive Plants and Senseless Weeds: Plants, Consciousness, and Elizabeth Kent

Leila Walker
CUNY Queens College

This is the accepted version of the following article: "Sensitive Plants and Senseless Weeds: Plants, Consciousness, and Elizabeth Kent" (*Essays in Romanticism*: Volume 27, Issue 2 Liverpool University Press, October 2020), which has been published in final form at https://doi.org/10.3828/eir.2020.27.2.3. This article may be used for non-commercial purposes in accordance with the Liverpool University Press Self-Archiving Policy [http://online.liverpooluniversitypress.co.uk/openaccess].

Sensitive Plants and Senseless Weeds: Plants, Consciousness, and Elizabeth Kent

Leila Walker, Queens College

When a group of researchers recently tested the effects of anesthesia on plants, they made a remarkable discovery: when trapped in a glass container filled with ether gas, or when drinking from roots soaked in lidocaine, the plants appeared to lose consciousness.[1] The fronds of a pea plant stopped swaying and drooped. A Venus fly trap ignored the sensation of a simulated bug crawling across its leaves. *Mimosa pudica*--often called "the sensitive plant" in reference to the way it appears to withdraw from human touch, and known to Romanticists for Percy Bysshe Shelley's poem of the same name--did not withdraw. When the drugs wore off, the plants appeared to regain consciousness. Plants, the popular press was quick to report, might have a consciousness to lose.[2]

[1] K. Yokawa, T. Kagenishi, A. Pavlovič, S. Gall, M. Weiland, S. Mancuso, and F. Baluška, "Anaesthetics Stop Diverse Plant Organ Movements, Affect Endocytic Vesicle Recycling and ROS Homeostasis, and Block Action Potentials in Venus Flytraps," *Annals of Botany* 122, no. 5 (October 2018): 747–756, https://doi.org/10.1093/aob/mcx155.

[2] JoAnna Klein, "Sedate a Plant, and It Seems to Lose Consciousness. Is It Conscious?" *New York Times*, February 2, 2018, https://www.nytimes.com/2018/02/02/science/plants-consciousness-anesthesia.html; Jason Daly, "What Sedated Plants Can Teach Scientists About Anesthetizing People," *Smithsonian.com*, February 6, 2018, https://www.smithsonianmag.com/smart-news/how-knocking-out-plants-solving-mystery-anesthesia-180968035/.

Implicit in the incendiary language of the popular press is a crude working definition of consciousness. Consciousness, in the sense used here, is not just the capacity to respond to external stimulus, but the capacity to withdraw--and to be vulnerable to the loss of the capacity to withdraw. Consciousness, so defined, is not only inherently intersubjective: it is confirmed through a particularly violating intersubjective relationship. Plants can respond to touch, and they can be forced to endure touch against what might best be called their will.

These experiments, and the popular reports on them, provoked a swift rebuke from dissenting scientists. Devang Mehta, a biologist at the University of Alberta, replied at length to the question in the *New York Times* headline: "Sedate a Plant, and It Seems to Lose Consciousness. Is It Conscious?" "The answer," Mehta wrote, "unreservedly, is 'no.'"[3] He pointed out that the actual report made no claims about "consciousness," although he also recalled that a previous study by the same lead scientists had been widely criticized for relying "on superficial analogies and questionable extrapolations." While he could find little fault, "scientifically and methodologically speaking," with either experiment, he expressed concern that a collective uncertainty about what "consciousness" means and how one might test for it might lead non-scientific readers to misinterpret behavior that "*looks to us*" like the behavior of consciousness. The language of the popular press, he lamented, inevitably turned to the language of analogy and anthropomorphism.

Perhaps unsurprisingly, Mehta's plea for scientific accuracy in popular reports had little effect. Not long after, when a different study found that a plant's genetic response to touch hindered its growth, popular headlines claimed that "plants don't like touch," and they might even "hate" it.[4]

---

[3] Devang Mehta, "Plants Are Not Conscious, Whether You Can 'Sedate' Them or Not," *Massive Science*, February 14, 2018, https://massivesci.com/articles/plants-conscious-intelligence-movement-sedate/.

[4] La Trobe University, "Plants Don't Like Touch: Green Thumb Myth Dispelled," *ScienceDaily*, December 17, 2018, www.sciencedaily.com/releases/2018/12/181217105853.htm; Joe Hinchliffe, "Plants Hate Green Thumbs – Science Backs Hands-off Gardening Approach," *The Sydney Morning*

Green thumbs were warned to back off. While presumably hyperbolic, these reports assign to plants not only an awareness of their environment, but actual feelings about that environment and the kind of care (or harm) inflicted on them by others. But as Danny Chamovitz, Director of the Manna Center for Plant Biosciences at Tel Aviv University, argued, awareness does not necessarily indicate self-awareness, or consciousness. "We care about plants," he writes, "do they care about us? No."[5]

It would be easy to read this back-and-forth as a case of weary scientists battling a stubbornly ignorant public. But such a reading would neglect the way that genre affects how we ask, and answer, these questions. It is not so much, I would argue, that it is *wrong* to suggest that plants are conscious, or feeling, or caring; while these claims may be unsupported by existing scientific evidence, they reveal the gap between a scientific and literary approach. The implicit questions that lurk behind the popular headlines have less to do with chemistry, or genetics, or the ability to feel without a brain, than they do with the responsibility we, as humans, might bear toward beings that are simultaneously so like us and so unlike us. As František Baluška, one of the lead authors of the 2018 study of the effects of anesthesia on plants, replied when a journalist asked if his findings indicated that plants are conscious, "No one can answer that because you cannot ask them" (Klein). One imagines a sly wink, but Baluška's answer does more than just side-step the question: it reminds us of the limits of our own capacity to infer from observation when our perspective is limited by our own embodiment. Perhaps even more telling is what Baluška *does not* say. Baluška does not say, "No one can answer that because *plants cannot tell us*"--the failure, if it is a failure, lies in our capacity to *ask*.

Herald, December 16, 2018, https://www.smh.com.au/national/plants-hate-green-thumbs-science-backs-hands-off-gardening-approach-20181215-p50mgl.html.

[5] Daniel Kolitz, "Are Plants Conscious?" *Gizmodo*, May 28, 2018, https://gizmodo.com/are-plants-conscious-1826365668.

The questions raised by these experiments are not new. But the concerns revealed by this experiment strike me as particularly Romantic in the way they attempt, and largely fail, to navigate questions of subjectivity, sociality, and the limits of our capacity to know the other. And, in fact, a recent scientific article criticizing the field of "plant neurobiology" accused its proponents of engaging in a "new wave of Romantic biology."[6] The rhetoric surrounding the effects of anesthesia on plants illuminates three key philosophical points that blur scientific and poetic modes of inquiry, which I will address here: first, the social sensitivities and insensitivities that define consciousness; second, the limits of our human capacity to meaningfully observe beings that are fundamentally unlike us; and third, the ethical considerations raised by differences that cannot be bridged by either science or language. These concerns, I argue, are central to Elizabeth Kent's *Flora Domestica* (1823) and *Sylvan Sketches* (1825), both botanical works that double as literary anthologies. Kent, long a neglected figure in literary studies, has received some scholarly attention of late for her contributions as a botanist or for her role in the intertextual sociality of the Cockney Circle--but rarely both together. However, severing Kent's literary project from her scientific project erases the gap between literary and scientific knowledge that her work exposes. In a time when the distinction between science and poetry could frequently blur, Kent's works navigate these boundaries with particular attention to the kinds of relationships each entails. In so doing, I argue, she advances an ethics of care attuned to consciousnesses beyond our understanding, rooted in the contested borderland between scientific and poetic knowledge.

---

[6] Lincoln Taiz, Daniel Alkon, Andreas Draughn, Angus Murphy, Michael Blatt, Crhis Hawes, Gerhard Thiel, and David G. Robinson, "Plants Neither Possess nor Require Consciousness," *Trends in Plant Science* 24, no. 8 (August 1, 2019): 67-687, https://doi.org/10.1016/j.tplants.2019.05.008.

1. Sensitive Plants.

The ability of certain plants to move, to respond to external stimulus, has been studied for centuries, and experiments on this responsiveness tend to reflect the concerns of their historic moment. A 1925 study by Jagadis Chandra Bose found that plants, specifically the sensitive plant, can both feel, and feel inebriated; the *New York Times* headline announced that plants "like alcohol."[7] In 1969, Robert M. Maniquis was inspired to write his study of sensitivity and plant symbols in Romanticism by experiments conducted by H. L. Armus, psychologist at the University of Toledo, which suggested that plants, like Pavlov's dogs, could be conditioned.[8] Ken Yokawa, František Baluška, and the team of scientists responsible for the 2018 experiment on the effects of sedation on plants were inspired in part by the work of the 19th-century scientist Claude Bernard, whose experiments between 1868 and 1878 demonstrated that application of ether could render *Mimosa pudica* unresponsive.[9] Building on William T. Morton's 1846 discovery of anesthesia, Bernard hypothesized that plants and animals shared a common sensitivity to changes in their environment, and concluded in his 1878 *Leçons sur les phénomènes de la vie communs aux animaux et aux végétaux* that "What is alive must sense and can be anesthetized, the rest is dead."[10] At the end of the 18th century, experiments testing the effects of Galvanism on a variety of plants (the sorts of experiments concerning the power of animation in dissected frogs that in part inspired *Frankenstein*) produced

---

[7] "Scientist Says Plants Can Feel Like Humans; Sir Jagadis Chandra Bose Declares They Sleep, Shrink, Bend and Like Alcohol," *New York Times*, November 9, 1925, https://www.nytimes.com/1925/11/09/archives/scientist-says-plants-can-feel-like-humans-sir-jagadis-chandra-bose.html.

[8] Robert M. Maniquis, "The Puzzling *Mimosa*: Sensitivity and Plant Symbols in Romanticism," *Studies in Romanticism* 8, no. 3 (Spring 1969): 129-155.

[9] Ken Yokawa, Tomoko Kagenishi, and František Baluška, "Anesthetics, Anesthesia, and Plants," *Trends in Plant Science* 24, no. 1 (January 2019), https://doi.org/10.1016/j.tplants.2018.10.006.

[10] Quoted in Alexandre Grémiaux, Ken Yokawa, Stefano Mancuso, and František Baluška, "Plant Anesthesia Supports Similarities Between Animals and Plants: Claude Bernard's Forgotten Studies," *Plant Signaling & Behavior* 9, no. 1 (January 2014), https://doi.org/10.4161/psb.27886.

mixed results.[11] Botanist and author Maria Jacson suggested that these Galvanic experiments might be refined to more definitively resolve the question of plant sensitivity, and noted that "[t]he effect of the electric fluid is similar, when administered to excess, in its power of destruction, both to animal and vegetable life; and, on the contrary, according to late experiments, electricity, carefully made use of, has been found salutary to the individuals of each kingdom" (18). Common to all these experiments is the notion that plants might share with us not only particular sensitivities, but also vulnerabilities. To be sensitive, to be alive, to be animate, is to be open to the violence of scientific experiment.

These experiments also reveal an anxiety, particularly acute in the late 18th and early 19th centuries, that distinctions between life forms (or even between life and death) might be too close for comfort. The Linnaean system relied on observable, taxonomic distinctions to name and categorize species, working off strict analogies to group like with like. As Theresa M. Kelley has argued, "Romantic era frictions between the ambition to name and classify all plants and a strong suspicion that plants might 'confound' any system devised to accomplish this goal, together with its middle position among the kingdoms of nature, made botany an epistemic minefield."[12] Yet, as "eighteenth-century experimentalists gathered evidence that some species had traits that resembled species that belonged to other kingdoms, it became more difficult to insist on" their separation (7). Plants, especially the sensitive plant, destabilized taxonomic order (5).

Maria Jacson's *Sketches of the Physiology of Vegetable Life* (1811) explicitly invites readers to take up the question, still apparently unsettled, "Whether vegetables are possessed of faculties which may

---

[11] [Maria Jacson], *Sketches of the Physiology of Vegetable Life* (London: John Hatchard, 1811), 16-18; D. C. Willdenow, *The Principles of Botany and of Vegetable Physiology, Translated from the German* (Edinburgh: William Blackwood, 1805), 223.

[12] Theresa M. Kelley, *Clandestine Marriage: Botany and Romantic Culture*, (Baltimore: Johns Hopkins University Press, 2012), 6.

entitle them to a place amongst the animal orders of the creation?" (6).[13] Drawing analogies between the movement, form, and appearance of various plants and animals, Jacson boldly claims, "By attentive observation of the motions of vegetable life, we discover in plants an appearance of volition equal to that which manifests itself in various tribes of the animal creation" (11-12). The exact phrasing of this claim deserves attention, because it illuminates both the power and the limitations of scientific observation. Although Jacson insists that scientific experimentation had not yet provided a satisfactory rationale for distinguishing plants from animals, she upholds the foundational principle that "attentive observation" will, eventually, yield at least the "appearance" of an answer. Yet Jacson's linguistic waver is revealing: can science infer volition from the *appearance* of volition? And can scientific methodologies reliant on the power of observation go beyond the observable?

Maria Jacson was not alone in questioning the dependability of traditional boundaries between plant and animal in the classification of life forms, although most scientific literature of the time dismissed the apparent motion of plants as "merely external," and not evidence of a vegetable will.[14] But while the science of plants struggled with strict distinctions between forms, writing about plants likewise blurred generic boundaries, and these generic crossings allowed authors the freedom to explore more extreme analogies. In Erasmus Darwin's *The Botanic Garden* (1791), anthropomorphized (and often highly sexualized) plants expressed sensation, desire, emotion, and agency in the poetic sections, while extensive footnotes provided scientific explanations for the poetic imagery. Lush botanical illustrations, some of which extended on fold-out pages beyond the limits of the book, underscored the implicit connection between scientific and artistic aesthetics,

[13] I follow Kelley's spelling of Jacson's name.
[14] *The New Royal Encyclopedia*, ed. William Henry Hall (London, [Preface dated 1788]), III, "Sensitive Plant," quoted in Maniquis, 137. Maniquis treats the body of scientific literature surrounding the sensitive plant at length in comparison to the plant's literary function.

while suggesting the uncontainable excess generated through such crossing. As Dahlia Porter has trenchantly argued, Darwin's mode of interweaving scientific notes and poetry, while keeping the two forms visually distinct on the page, effectively plots "a relationship between these realms without conflating their functions or goals."[15] Darwin mobilizes textual form to negotiate (and transgress) the boundary between scientific and poetic knowledge.

The generation following Darwin adopted, in various ways, elements of this composite form, experimenting with combinations of poetry and scientific notes. In Charlotte Smith's *Conversations Introducing Poetry* (1804), for example, children learn the names and characteristics of various plants through dialogue with a patient mother who intersperses bits of poetry throughout her lessons. In Smith's posthumously published *Beachy Head* (1807), the long poem is followed by extensive and exacting scientific notes. Frances Arabella Rowden's *A Poetical Introduction to The Study of Botany* (1801) treated botanical themes in poetry without Darwin's overt sexualization, and the eighth edition of Priscilla Wakefield's *Introduction to Botany* included Sarah Hoare's *Poem on the Pleasures and Advantages of Botanical Pursuits* in 1818.[16] Taken together, these texts represent the brief emergence of a hybrid genre of literature that presented science and poetry as mutually constructive yet not entirely compatible.

It was in this context of scientific, literary, and aesthetic experimentation that Elizabeth Kent published her *Flora Domestica* and *Sylvan Sketches*. In these collections, Kent treats common plants (in *Flora Domestica*) and trees (in *Sylvan Sketches*) in alphabetical order by common name, from Adonis to Zygophyllum and Acacia to Yew. Each entry begins with the common name of the plant, centered

---

[15] Dahlia Porter, *Science, Form, and the Problem of Induction in British Romanticism* (Cambridge: Cambridge University Press, 2018), 98.

[16] For a fuller treatment of these and other collections of botanical poetry by women authors, see Sam George, *Botany, Sexuality and Women's Writing, 1760–1830: From Modest Shoot to Forward Plant* (Manchester: Manchester University Press, 2007).

on the page in large font, followed by a secondary name, when available, in a slightly smaller font. On the next line, the plant's Latin name is given in small caps to the left, and the plant's classification according to the Linnaean sexual system is given in small caps to the right. A brief summary of the etymology of the plant's name follows in smaller font. The body of the entry provides, in no consistent order, information about the plant's defining characteristics, its origin and habitat, and proper care, as well as its appearances in mythology and literature. These texts, as their title pages proclaim, are illustrated not with lavish botanical drawings, but with "the works of the poets," and the works she excerpts range from classical to Cockney, with little concern for chronology or connections beyond the botanical.

The organization of the information of the page privileges a particular kind of reading in Kent's works. Darwin's *Botanic Garden* revels in the chaotic jumble of forms, as poetry, notes, and illustrations knock elbows on the page, and while the names of plants are visually emphasized within the text, the headings tend rather to interrupt the poem with Interludes than to indicate order. It is a poem that seems designed to disorient, yet it is also clearly intended to function as a single, disorienting whole (indeed, it is the unity itself that disorients). Smith's *Beachy Head* confines its notes to the end of the volume, and the text of the poem gives no indication that the reader might pause at any point to consult these notes. Although Smith herself was not involved in the final form of the published work, the structure urges readers to read the text as a whole, without interruption. Her *Conversations Introducing Poetry*, on the other hand, is organized into ten conversations, structured as if they were dialogue in a play; snippets of poetry are introduced by characters as they recite lines they have memorized. The book is structured to function pedagogically, allowing children to learn an ordered series of lessons alongside the characters in the book. Kent's works, however, are structured as reference materials, with key identifying information made visually prominent, presumably to aid a reader flipping through the pages to find a particular entry. Kent provides a preface, but no

unifying narrative. Rather, the reader might take up the book for a quick consultation about a particular plant, then set it back down. That is, the book is structured to facilitate engagement with a particular plant, to facilitate understanding of its ecological and literary habitat as constructed by Kent.

In Kent's works, science and poetry combine to illuminate a social dynamic, an affective relationship between humans and plants, and she pays particular attention to the human behaviors that might cause a plant to literally or metaphorically engage or withdraw. Both *Flora Domestica* and *Sylvan Sketches*, as Kent made explicit in the preface to each, were intended to serve as "introductions" in two senses: to introduce botanical knowledge to beginners in the field, and to serve as social introductions as between mutual friends. "[T]he intention of this volume," Kent writes in *Sylvan Sketches*, "is to give an unceremonious introduction of certain trees and shrubs to our readers, who are occasionally in the habit of meeting them without being acquainted, in many instances, even with their names."[17] She assumes that her readers have "met" these plants, but, "utterly ignorant of their wants and habits," have seen them "die one after the other, rather from attention ill-directed than from the want of it."[18] Like the plants of scientific experiment, Kent's are vulnerable, and sensitive--but they are vulnerable and sensitive in a very social sense, and this social vulnerability makes them frustratingly demanding companions, unable or unwilling to respond to or reciprocate our attentive care. The botanical knowledge conveyed in these pages is primarily a social knowledge, caught up in paying attention in a very particular way to beings that have "wants and habits" that they cannot communicate for themselves.

---

[17] [Elizabeth Kent], *Sylvan Sketches; or, a Companion to the Park and the Shrubbery: With Illustrations from the Works of the Poets* (London: Taylor and Hessey, 1825), ix.

[18] [Elizabeth Kent], *Flora Domestica, or the Portable Flower Garden; with Directions for the Treatment of Plants in Pots; and Illustrations from the Works of the Poets* (London: Taylor and Hessey, 1823), xiii.

Kent's plants are responsive to human action (or inaction), and they also elicit human response. While Kent does not go so far as to imbue plants with consciousness, Kent portrays the intersubjective relationship between plants and humans as supporting and generating human self-awareness. In the preface to *Sylvan Sketches*, Kent writes,

> To attempt to enumerate the uses of the vegetable productions were to enter upon an endless theme indeed; as vain would it be to attempt to describe their beauties; but there is something beyond mere use, something beyond mere beauty, in their influence upon the human mind;--there is something in flowers and trees which excites our kindest sympathies, which soothes our keenest sorrows (xv).

Kent does not specify what that "something" is, or what the nature of those "kindest sympathies" might be when they are "excited" by a nonhuman subject. But their "influence upon the human mind" cannot be satisfactorily explained by either practical "use" or poetic "beauty." Kent calls attention to the interplay between scientific and poetic modes of knowledge at work in her project (and in other contemporary examples of this hybrid genre), while also calling attention to the limits of each mode, to the meaningful social encounters that we enter into with the vegetable other "beyond" our capacity to know that other.

The influence of plants on the human mind is particular *to* plants, as Kent makes clear when she compares human-animal relationships to human-plant relationships. "A man may indeed," she writes:

> love his horse or his dog, his monkey or his cat; may fondle a young tiger, or make a companion of a pet bear; but he will not lounge in a menagerie with his book, take a walk to Exeter Change to relieve his melancholy, or retire to his stable, or his dog-kennel, at twilight, to indulge in tranquil meditation. If he be weary, he will love to repose in the shade; if he be sad, he will love to wander in groves and woods; and, at the approach of sunset, he will doubly enjoy his book, his own thoughts, or the conversations of his friend, if he be seated under his favourite tree (*Sylvan* xvi).

This passage has always struck me for its similarity to the Winnicottian holding environment which Nancy Yousef has extended to include the poetic frame of mind supported by the silent presence of

the other.[19] In Yousef's analysis, the supporting other, who makes no demands on the poet's attention yet holds a place to which he may return, is by definition a conscious being who has withdrawn--or, rather, allowed the poet to withdraw without consequence. We cannot ascribe consciousness to the groves and woods Kent describes here, but their effect on the poetic mind mimics that of a consciousness that does not make demands on our attention.[20]

How to accord this withdrawn presence with the demanding plants of *Flora Domestica*, dying of "attention ill-directed"? What's taking shape here is a very social relationship in which the equal subjectivity of the beings involved cannot be assumed. Like the sensitive plants of scientific experiment, Kent's plants display vulnerability, perhaps even something approaching volition in their apparent "wants and needs." Yet Kent's plants cannot be understood through analogy to human or even animal consciousness. Rather, they participate in social exchanges that indicate a kind of consciousness that cannot be reduced to the knowable.

2. Social Poets, Textual Ecosystems

Romanticism's social mind, as John Savarese demonstrated, has received increasing scholarly attention over the past two decades as what Gillian Russell and Clara Tuite describe as "Romanticism's traditional identification with the lone poet, withdrawn into productive introspection" has given way to scholarship celebrating the poetic school, the social network, the intersubjective experience, and the interaction.[21] Even the lone poet, as Kent's description in *Flora*

---

[19] Nancy Yousef, "Romanticism, Psychoanalysis and the Interpretation of Silence," *European Romantic Review* 21, no. 5 (September 2010): 653-672.
[20] At this point in the composition of this article, a cat jumped on my desk and sprawled across my notes and laptop in a helpful illustration of the difference between plants and animals.
[21] John Savarese, "Social Minds in Romanticism," *Literature Compass* 14, no. 2 (February 2017); Gillian Russell and Clara Tuite, eds., *Romantic Sociability: Social Networks and Literary Culture in Britain, 1770-1840* (Cambridge: Cambridge University Press, 2002), 4.

Domestica illustrates, relies on the implicit support of a surrounding consciousness. Perhaps no school exemplified Romanticism's poetic sociability so much as the Cockney School centered around Leigh Hunt. As Jeffrey N. Cox argued in an early study of Romantic sociability, the Cockney poets, who at times included Keats, Shelley, Byron, and others, sought "to represent in verse the group and its life" by incorporating poetic dedications, poems written for Hunt's contests, and frequent invocations of other members of the group in an extensive intertextual network.[22] In many ways, Kent's botanical projects follow this pattern, reconstructing the social network of the Cockney School as a textual network. And by placing poetry from the Cockney School alongside classical and canonical poets including Milton, Ovid, Tasso, and Shakespeare, she elevates her community into an established poetic lineage outside the boundaries of time.

But consider for a moment Kent's actual position regarding the Cockney Circle. On the one hand, Kent often shared a home, even in gaol, with Leigh Hunt; she hosted social and intellectual gatherings and helped establish the "poetic retreat from society" that allowed the circle to thrive.[23] But on the other hand, Kent was very much on the margins of the circle she had helped cultivate. Her fits of temper alienated even her closest friends, and until recently she was best known for "the anecdote that she threw herself into the pond at Hampstead one morning while Keats was waiting for his breakfast."[24] Even Hunt, who helped Kent gather the poetic specimens that illustrated her works, belittled her botanical work, writing in 1824 that "I think your little book," referring to her 1822 collection of children's stories, "beats your large one."[25] And his sonnet "To Miss K., Written

---

[22] Jeffrey N. Cox, *Poetry and Politics in the Cockney School: Keats, Shelley, Hunt and Their Circle* (Cambridge: Cambridge University Press, 1998), 24.
[23] Daisy Hay, *Young Romantics: The Shelleys, Byron, and Other Tangled Lives* (New York: Farrar, Straus and Giroux, 2010), 94.
[24] Molly Tatchell, *Leigh Hunt and His Family in Hammersmith* (Hammersmith: Hammersmith Local History Group, 1969).
[25] Leigh Hunt to Elizabeth Kent, September 1, 1824, *Leigh Hunt Letters*, University of Iowa Libraries, http://digital.lib.uiowa.edu/cdm/compoundobject/collection/leighhunt/id/71/rec/4.

on a Piece of Paper Which Happened to Be Headed with a Long List of Trees," literally erases her botanical work in favor of "two things richer far, / A verse and a staunch friend."[26] While Kent could represent in text the social circle of the Cockney School, it was difficult for her to participate in the actual social and literary life of the circle.

Kent's project is not just in conversation with the social constructs of the Cockney School; she is literally *constructing* that social network as a text. But also, and crucially, she is constructing that social network as a *botanical* text. While the Cockney poets incorporate intertextual elements and performative sociability into their poetic projects, Kent draws on the structure of botanical collections to frame her poetic anthologizing. Kent describes her botanical works as illustrated "from the works of the poets," and as Dahlia Porter recently argued, illustrations in botanical books at this time often functioned epistemically, "putting forward particular knowledge claims that may corroborate--but also extend, displace, or contradict--the import of the printed text."[27] Kent's "illustrations" function similarly, extending and complicating the claims asserted by a botanical work organized around Linnaean classifications. But this structure *also* complicates the claims that might be made through poetry or the interpretation of poetry. In a separate essay, Porter argues for an understanding of early 19th-century literary collections as borrowing from the scientific tradition of presenting botanical specimens.[28] Literary collections similarly gathered poetic "specimens" that had been ripped out of context (as one might remove a cut plant from its ecosystem) and presented as demonstrating the observable characteristics of a type. In this way, editors assembled literary anthologies that resemble scientific study. Although Porter does not mention her, Kent's work

---

[26] Leigh Hunt, "To Miss K., Written on a Piece of Paper Which Happened to Be Headed with a Long List of Trees," *Foliage* (London: C. & J. Ollier, 1818).
[27] Dahlia Porter, "Epistemic Images and Vital Nature: Darwin's *Botanic Garden* as Image Text Book," *European Romantic Review* 29, no. 3 (June 2018), 296.
[28] Dahlia Porter, "Specimen Poetics: Botany, Reanimation, and the Romantic Collection," *Representations* 139, no. 1 (Summer 2017): 60-94.

exemplifies the use of botanical collections to materially structure a poetic anthology. While Kent represents the social network of the Cockney School as a textual artifact, she also literally presents poetry in place of botanical specimens. Kent works on multiple registers of epistemic displacement to engage with and intervene in both poetic and scientific modes of knowledge construction.

Kent explicitly connects botanical collecting and the emerging form of the poetic anthology by 1825. At the time it was written, *Sylvan Sketches* would have had a double meaning: as Porter pointed out in another context, "sylvan" referred not only to trees, but also to "[c]lassical literary miscellanies." Sylvae, according to the *Oxford English Dictionary*, were "'collections of poetical pieces, of various kinds, and on various subjects'" (*Science* 161). And in the updated preface to the 1825 second edition of *Flora Domestica*,[29] Kent compares her editorial project to the practice of flower-collecting, suggesting that what she chooses to include, and what she chooses to leave out, is less determined by a desire to collect the very best, than a desire to demonstrate the beauty found in a range of poetic endeavors. "There is an inspiration," she writes, "in the works of nature which gives a more than usual power even to talents of a common order, when treating of them; and although we take greater delight in the rose, the violet, or the lily, we also love to pluck from the hedge-side the hawthorn and the ragged-robin."[30] Kent supports this claim by quoting Wordsworth on "the inclination we have to gather wild flowers":

> We paused, one now,
> And now the other, to point out, perchance
> To pluck, some flower or water-weed, too fair
> Either to be divided from the place
> On which it grew, or to be left alone
> To its own beauty (xxxiv-xxxv).

---

[29] Evidence of the alignment of the signature on the page indicates that an 1831 "New Edition" "Printed for Whittaker, Treacher, and Co," is most likely unsold stock from the 1825 second edition wrapped with a new title page and frontispiece.

[30] [Elizabeth Kent], *Flora Domestica, or the Portable Flower Garden; with Directions for the Treatment of Plants in Pots; and Illustrations from the Works of the Poets*, 2nd edition (London: Taylor and Hessey, 1825), xxxiv.

While practical limitations of physical space prevent Kent from including all the "hedge-flowers of poetry" she might, Kent reminds us that both the practice of collecting flowers and the practice of collecting poetic excerpts involves an act of displacement that borders on violence as these specimens are removed from their ecosystems.

The imaginative home that a poet builds to surround the plants he observes, Kent suggests, form an artificial ecosystem of textual associations. This ecosystem, she stresses, differs distinctly from the ecosystem that might be scientifically observed. "If flowers have so much beauty in common eyes," she writes:

> what must they be in the eye of a poet, which gives new charms to every object on which it gazes! A poet sees in a flower not only its form and colour, and the shadowing of its verdant foliage--his eye rests upon the dew-drop that trembles on the leaf; a gleam of sunshine darts across, and gives it the sparkling brilliancy of a diamond. He sees the bee hovering around, buzzing its joyous anticipation of the honey he shall draw from its very heart; and the delicate butterfly suspended as it were by magic from its silken petals. His imagination, too, brings around it a world of associations, adding beauty and interest to the object actually before his eye (xxxvi).

In this passage, Kent articulates a distinction, which Richard M. Ness has noted in the poetry of John Clare, between the "decontextualized observation" of "*experiment*" and the "contextualized observation" of "*experience*."[31] Seeing a flower by its distinguishing (and classifying) characteristics of "form and colour" is not seeing the full environment of a particular and vivid moment in time that also includes dew, and sunshine, and the economy of bees. But, crucially, the poetic mode of observation is *also not* the experience of observation in the moment: the poetic observation extends beyond the plant and its context to "a world of associations" in the poet's own mind. As Ness says of Clare, Kent's passage "makes visible how aesthetics and science can be complicit in ecological harm. The scientist removes the insects [or plants] *from* their environment, while aesthetic

[31] Richard M. Ness, "Song of Experience: John Clare's Empirical Taste," *John Clare Society Journal* 38 (2019), 15.

conventions impose forms *onto* the environment" (17). But Kent is not arguing for resistance to either scientific or poetic decontextualization; rather, she is making use of both methods in order to perform an act of displacement herself as she plucks poetic specimens from their environment.

Kent uses the formal structure of botanical science to decontextualize, recontextualize, and *contain* the textual artifacts of a very social group of poets. While the practice of collecting botanical specimens disrupts the natural ecosystem, Kent acknowledges that her collection of *poetic* specimens disrupts and decontextualizes in order to imagine alternative poetic ecosystems, to create a new whole. She imposes a new structural environment onto the scraps of poetry she has gathered in a creative act that deserves to be recognized as an aesthetic intervention.

3. Senseless Weeds

The whole that Kent creates, she acknowledges, does not replicate the ecosystem that the poets represented would choose to inhabit. Yet that is exactly the point. In her preface to *Sylvan Sketches*, Kent explains her decision to bring together poetry by authors who would not voluntarily socialize: "Wordsworth speaks somewhere," she writes:

> of the tenderness of feeling excited by trees and flowers, a tenderness which, in the absence of those we love, is often wasted on the senseless weed. It is a conviction of this kindly influence of nature that has emboldened the writer to bring the most opposite parties together amid these woody scenes; not hesitating even to place Mr. Southey by the side of Lord Byron, without fear of the consequences, but rather indulging a faint hope that they may shake hands and be friends before they return to the irritating bustle of towns and cities (xix).

The outpouring of "feeling" that might be seen as "wasted on the senseless weed," Kent reconceptualizes as integral to a friendliness that embraces fellow-feeling across difference. Her poetic reconfigurations productively redirect feeling, generating artificial affective networks that might, like poetry, have the tendency to *become* the truth they describe.

Many botanical writers of this period, particularly those who, like Kent, also wrote for and taught children, emphasized the value of careful observation leading to accurate identification.[32] And while Kent proposes to "introduce" plants to readers who might not even know their names, and provides careful descriptions that would allow readers to identify each plant, she also treats with *joy* the encounters made possible only through *mis*-identification. "Ariosto," she writes:

> although utterly ignorant of botanical science, took even an infantine pleasure in his little garden; and we are informed by his son, that after sowing a variety of seeds, he would watch eagerly for the springing of the plants, would cherish the first peep of vegetation, and having for many days watered and tended the young plant, discover at last that he had bestowed all this tenderness upon a weed; a weed, perhaps, which had choked the plant for which he had mistaken it (*Flora* xiv-xv).

Rather than mourn the plants lost to Ariosto's failure to carefully observe and identify them, Kent celebrates his cultivation of the weed: "Who can read this anecdote of so great a man," she exults, "and not feel an additional interest in him! In how amiable a light it represents him!" (xv). In this charming anecdote, Ariosto's tenderness of feeling is affirmed through his *failure* to accurately observe the plants he nurtures. He cannot distinguish between the plants he *intends* to care for and the weeds that killed them--but the *care* persists beyond observation, classification, and intention. While this story is clearly delightful and entertaining and light-hearted, it also suggests a profound disconnect between what is *observable* and what is *ethical*.

Indeed, how poignant, given her struggles to find acceptance within her own social circle, is her description of the sensitive plant:

> Like human beings, they are more sensitive in proportion to the tenderness of their nursing; like them, by living hardily, they may be fitted to bear the common chances of life. In the plant, this nervous sensibility is encouraged for its singularity; it is pity there should not be the same reason for encouraging it in the human species (*Flora* 247-248).

---

[32] Kent's collection of children's tales was recently identified by Leila Walker in "Elizabeth Kent's Lost *Tales*, Found" [conference presentation], *North American Society for the Study of Romanticism*, Berkeley, CA, August 11-14, 2016.

While many scientists and poets, in her time and ours, marveled at how the motion of the sensitive plant appeared to mimic the motion of human feeling, and used this similarity as the basis for analogical or allegorical links between plants, animals, and humans, Kent turns our attention to the ethical responsibility entailed in observing sensitivity in another. "Many persons have endeavoured to ascertain the cause of the sensibility of these plants," Kent continues:

> but it has never yet been clearly explained. The degree varies in the different kinds: some will only contract their leaves on being touched; others will bend and recede, as it were courteously to acknowledge your approach; as that which is termed the Humble-plant (248).

That the cause of the plant's sensitivity cannot be ascertained is not, for Kent, as ethically relevant as the social relation implied by its sensitivity. And this is important, because it suggests a subtle critique of our ability to develop social structures around observable interaction and intention. We cannot derive volition from the *appearance* of volition in the sensitive plant; nor can we expect the "senseless weed" to reciprocate the "tenderness of feeling" it might excite. We can observe how other beings respond, or fail to respond, to human contact, but this, ultimately, tells us more about what we are capable of recognizing as sensitivity than anything else.

It would be easy to read Elizabeth Kent's guides to the treatment of plants as metaphorical guides to the treatment of humans--and they are. They recall to us the joy of the accidental encounter, the importance of care for care's sake, the value in uniting, as Shelley put it, "all irreconcilable things" through acts of imagination.[33] But to read Kent's works as solely metaphorical would neglect how nimbly Kent negotiates the permeable boundary between poetry and science. While Darwin and Smith, as we have seen, engaged with both poetry and science in *The Botanic Garden* and *Beachy Head*, typographical and structural cues keep poetic and scientific modes of knowing distinct within each text. And although, as Porter has argued, the poetry does more than

[33] Percy Bysshe Shelley, "A Defence of Poetry," in *Percy Bysshe Shelley: The Major Works*, edited by Zachary Leader and Michael O'Neill (Oxford: Oxford UP, 2003), 698.

decorate the science, and the science does more than rationalize the poetry, it is also apparent that these authors carefully guard against confusion between the two. In Kent's works, however, science and poetry cohabitate easily within each entry, and this is important because it allows us to imagine bridging the gap between scientific and poetic ways of knowing.

While the gap between science and poetry is made literally, visibly apparent in the physical structure of *The Botanic Garden* and *Beachy Head*, no such structural cues call attention to a knowledge gap in *Flora Domestica* and *Sylvan Sketches*. Instead, Kent moves quickly between scientific observation, poetic illustration, and her own act of interpretation mediating between the two. In the entry on the *Mimosa*, for example, she begins by providing instructions for the proper care of the plant before comparing its care to the proper care of humans, then turns back to the practical matter of proper potting and watering, summarizes the scientific failure to explain the plant's movements, excerpts relevant selections from two poems, and finally concludes by describing the plant's natural habitat. Natural segues do not always connect this jumble of associations. Rather, poetry and potting are treated as equally important to the plant's "biography" and proper care. But there remains a gap between poetic and scientific modes of knowing, which Kent makes clear in a later discussion of the sensitive plant.

In the preface to *Sylvan Sketches*, Kent returns to the poetic treatment of the *Mimosa*, in this case highlighting a Matthew Prior poem in which Solomon asks the learned:

> Whence does it happen that the plant which well
> We name the sensitive, should move and feel?
> Whence know her leaves to answer her command,
> And with quick horror fly the approaching hand?

Kent interprets:

> The learned could not answer these inquiries; neither could they have explained why certain plants are so choice in the selection of their friends, that they will turn from such as do not please them. We cannot suppose this to be without reason: plants are too amiable to indulge in causeless antipathies (xxxii).

In this passage, Kent fills the gap in scientific understanding of the sensitive plant's motions with a poetic treatment of that gap; she allows poetry to reveal the work that science is unable to do, enabling her to intuit, in the interpretive space that opens up between science and poetry, the existence of a consciousness whose existence is beyond the bounds of our understanding. Kent's works draw on the botanical practice of scientific observation in order to expose the limits of *both* scientific and poetic observation, forcing readers to consider the value of consciousnesses (and sensitivities) we cannot observe. She calls our attention to the questions neither science nor poetry can *ask*, to the gap between observable reality and observation and interpretation.

At the heart of Kent's observations on the sensitive plant is the firm belief that plants must be understandable, even if they are not understandable *to us*. Kent presents plants as beings who might place demands on our attention, or release us from the obligation of attention; beings who cannot be fully understood, but nonetheless share intersubjective experiences. She allows them to remain strange even in their familiarity, even as they become more familiar through Kent's introductions. Even with the most careful attention to its "wants and habits," the sensitive plant may still turn away, or not. We are inclined to interpret this turning away as a response *to us*, to the care or harm we mete out, in experiential or experimental environments. But that would be "attention ill-directed."

There's violence in the assumption that if we pay proper attention to another being, it will, or must, *respond*. In the quest to conceive of another being's consciousness as interpretable by us, we perhaps make our investigations into its consciousness (or lack thereof) really *about* us. But in her descriptions of sensitive plants and senseless weeds, Kent leaves intact the other's right to love us or ignore us for no reason that we can perceive.

As the philosopher Michael Marder has recently argued, "the absolute familiarity of plants coincides with their sheer strangeness." "More often than not," he writes, "we overlook trees,

bushes, shrubs, and flowers in our everyday dealings, to the extent that these plants form the inconspicuous backdrop of our lives."[34] Like the landscapes that support the mental wanderings of a poet allowed to withdraw, Marder's inconspicuous plants blur into an undifferentiated mass of green. "How," Marder asks, "is it possible for us to encounter plants? And how can we maintain and nurture, without fetishizing it, their otherness in the course of this encounter?" Encounters that would contain plants within systems of classification, that focus on naming a plant and identifying it with a particular species, he persuasively argues, obscure the plant itself in a series of abstractions and generalizations. Instead, he suggests, "the idea is to allow plants to flourish on the edge or at the limit of phenomenality, of visibility, and, in some sense, of 'the world.'" As Kent puts it, we encounter plants "beyond" our ability to explain.

While Kent's works allow readers to identify plants with their type, the artificiality of such naming becomes clear as scientific and literary systems are applied simultaneously; science, like literature, abstracts the real. Yet these abstractions allow us to acknowledge an encounter with a different mode of being. Kent facilitates encounters with plants that disrupt the "green wall" and allow us to see individual plants by "introducing" her readers to them, their care, and their poetic treatment.[35] Like the killer plants and "strange orchids" that would populate Victorian literature years later, Kent's plants have a kind of "narrative agency" that, as Elizabeth Change has argued,

---

[34] Michael Marder, *Plant Thinking: A Philosophy of Vegetal Life* (New York: Columbia University Press, 2013), 3.

[35] Professional kitten rescuer Hannah Shaw speaks eloquently of her experience learning to "see" plants: "I remember when I used to go into the forest for a hike, I would just see a green wall. Sure, I understood that there were lots of plants, but I didn't know much about them. They were a group—'plants'—and that group was a green wall. As I developed an interest in plants, the green wall began to change. I got to know the tulip poplars, which were often friends to morels after a good rain. I started to notice the lichens that would cling to the bark of fallen trees, and I could even identify a few—'hey wait a minute, I know you! You're usnea.' The more time I spent in nature, the more the green wall disappeared and the green space was alive with individuals" (Instagram post, May 27, 2019, https://www.instagram.com/p/Bx-NKSfJ18X/).

"radically [alter] notions about sentience, mobility, reproduction, and representation--not least by blurring distinctions between character and setting."[36] The structure of Kent's works inclines toward such blurring, as Kent constructs a hybrid literary form in which the "holding" environment the natural landscape provides the poet is reconstituted in text as the frame "holding" the poetic results. In this way, she constructs an intertextual sociality in which plants participate in the same ecosystem of thought as the Cockney Poets themselves.

And yet, despite Kent's introductions, and despite their vital presence within a social system, these plants remain fundamentally *strange*. Marder contemplates at length the concept of "vegetal indifference"--that is, a plant's fundamental indifference to itself (or "its 'self'") as a unified being (132). Plant thinking, in this sense, can never be understood through analogy to human or even animal thinking, because the sense of the self doing the thinking is so radically different. We lose sight of this difference in the poetic use of plants as symbols, allegories, and metaphors for the human condition, rather than for themselves. Kent, by cataloging these poetic uses within the structure of botanical introductions, centers the *relationship* between human and plant--she never allows us to lose sight of the *plant itself* in the imposed environments of poetic imagination or scientific classification. The structure of her texts, which encourages readers to consult the book as they encounter specific plants in nature or poetry, asserts the primacy of a personal relationship, an encounter with an other being that cannot adequately be described in any genre of human thought. Like Marder, Kent refuses to "assert an unconditional right of admission into the vegetal world, which is the world *of* and *for* plants, accessible to them" (8-9). Even with a proper introduction, plants may still withdraw from us, or not; may thrive, or not; may love us in ways we are incapable

[36] Elizabeth Chang, "Killer Plants of the Late Nineteenth Century," in *Strange Science: Investigating the Limits of Knowledge in the Victorian Age*, edited by Lara Karpenko and Shalyn Claggett (Ann Arbor: University of Michigan Press, 2016), 83.

of understanding. Our ethical responsibility is to pay attention without the expectation of full comprehension.

4. Coda

As I write this article, in 2019, I sit in an office surrounded by plants in various stages of propagation: a rubber tree rescued from the curb when a neighbor died without relatives; two sprawling pothos clipped from colleagues' plants; three paperwhites that do not seem inclined to flower; six tiny clippings from a jade plant given to me by a dear friend sixteen years ago. The jade plant once flourished, but my cat ate it and then urinated on it seven years ago; two cuttings from that first disaster managed to survive before both began, inexplicably, to rot from the roots last month. The six tiny cuttings, no more than a leaf or two each, are all that now survive. I still think of all these plants as the original and call them each by the same name; they defy distinction between individuality and plurality. I do hope that they reward my efforts by thriving.

While I have always loved plants, it must be said that my current fascination is part of a larger trend. If "put a bird on it" was the dominant aesthetic of 2011, the corresponding catchphrase for 2019 must surely be "put a plant on it." In the past two years, it seems every magazine that runs think-pieces has run at least one think-piece on why Millennials love plants. (I must clarify that, despite my interest in plants, I am not myself a Millennial.) The generational psychology behind this trend has been explained in various ways that all reflect on this particular historic moment: it's compensation for the delay in parenthood or home ownership forced by strained economic

conditions;[37] it's a reaction to fears about climate change;[38] it's an expression of self-care;[39] it's for Instagram.[40] These explanations do exactly what explanations of any trends attributed to Millennials do: homogenize and infantilize a diverse generation that is rapidly entering middle age, while reducing human encounters to the logic of capitalism. And as cultural critic Kate Wagner put it in a think-piece responding to these think-pieces, "a general rule of capitalism throughout history is: what's good for business is usually bad for living things."[41]

The logic of capitalism necessitates the commodification the encounter with the plant; it transforms living plants into things that can be categorized with a hashtag and monetized at scale. To resist this, Wagner argues in language strikingly similar to Kent's, we must recognize that "true joy of houseplant ownership comes via observation and attention." We must attune ourselves to plants *as* plants, animate in their own slow way, conscious as only plants can be conscious. We must attend to their differences in order to see them as similarly valuable. "We see plants as inanimate objects," Wagner writes,

> because they change and react to their environment on a much longer timescale than animals. We have the mistaken idea that plants do not respond to human love in the same way that animals do, that plants cannot feel in the traditional sense. No, a houseplant isn't the same thing as a dog, but it is closer to a dog than it is to an image of a dog.

---

[37] Lisa Boone, "They Don't Own Homes. They Don't Have Kids. Why Millennials Are Plant Addicts," July 24, 2018, https://www.latimes.com/home/la-hm-millennials-plant-parents-20180724-story.html.
[38] Jia Tolentino, "The Leafy Love Affair Between Millennials and Houseplants," *The New Yorker*, April 18, 2019, https://www.newyorker.com/culture/culture-desk/the-leafy-love-affair-between-millennials-and-our-houseplants.
[39] Hillary Hoffower, "Millennials Really Love Plants," *Business Insider*, April 12, 2019.
[40] Matthew Boyle, "The One Thing Millennials Haven't Killed Is Houseplants," *Bloomberg*, April 11, 2019, https://www.bloomberg.com/news/features/2019-04-11/the-one-thing-millennials-haven-t-killed-is-houseplants.
[41] Kate Wagner, "Plant Parenthood," *The Baffler*, July 9, 2019, https://thebaffler.com/kate-takes/plant-parenthood-wagner.

And we have an ethical responsibility to *care* for houseplants *because* they are plants. "This caring isn't an inconvenience of houseplants," Wagner stresses, "it is the very *reason for having them*." This care manifests in actions -- maintaining a comfortable environment, attending to the plant's wants and needs, talking to the plant and washing its leaves -- but it also manifests in a desire to *know* the plants. In the conclusion to her article, Wagner declares, "I'm done with books about which pots look good with African Violets or how to pair plants with vintage cameras. Tell me what these plants *are*, where they come from, why they look and behave the way they do."

Perhaps it is time once again to attend to Elizabeth Kent, not only as a figure in the history of literature and science, but as an author who might help us more purposefully observe our communities that include both human and nonhuman actors. Who better to answer (or gently refuse to answer) Wagner's questions: "Why do calatheas have so many variations in their leaf patterns? Why do some plants fold up at night? How did these plants relate to other species in their native habitats? Who discovered them and classified them? How have they been used culturally?" Science can answer some of these questions, poetry others. Both forms of knowledge allow us to encounter plants in the gap between them, as strangely familiar and worthy, in their strangeness, of our care.

Acknowledgments

This article was made possible in part by the generous award of a Directors' Scholarship to Rare Book School. An early version of this work was presented at the *MLA Annual Convention* on the "Romanticism and Embodied Cognition" panel. My thanks to Richard Sha for convening the panel, to Jonathan Kramnick for his illuminating response, and to Kate Singer and her students at Mt. Holyoke College for their provocative questions.