Joela Jacobs

Plant Parts: Vegetal Tropes and their Phytopoetic Resonances Across Botany and Culture

PLANT PERSPECTIVES 1/2 - 2024: 276–292
doi: 10.3197/whppp.63845494909734
OPEN ACCESS CC BY 4.0 © THE AUTHOR

ABSTRACT

While the natural sciences and the humanities were not always as separate as they appear today, language has connected them inextricably throughout history. Terminology for plant parts such as root, leaf, stem, flower and fruit have been operative across disciplines both as references to actual vegetal matter and as tropes that carry and continue to take on new metaphorical, allegorical, symbolic and topological meanings that go beyond the strictly botanical. By exemplarily examining five such tropes, this article maps these discursive networks of meaning and their phytopoetic resonances, showing how plants have shaped human thought and culture.

KEYWORDS

cultural plant studies, plant parts, vegetal tropes, phytopoetics, resonances

We have all dissected a plant before. It might not have been with a blade or physical force, but language is a sharp instrument that can take apart a plant and isolate it into leaf, stem, root, flower and fruit. In reverse, *pars pro toto*, the literary device in which a part stands in for the whole, can turn a flower or fruit into a representative for the entire plant. The relationship between parts and wholes is unique when it comes to plants because they can survive the removal of one of their parts with much more ease than other living beings. In fact, for many plants, cuttings, fission, fragmentation and other kinds of (re)moving a piece of vegetal matter are successful forms of asexual reproduction.[1] While plants are not mobile in the sense of choosing a new place to put down their existing roots, their modular bodies nonetheless allow

1 See Jacobs, 'Plant sexuality'; Jacobs and Seymour, 'Asexual ecologies'; Sandford, *Vegetal Sex*.

for a certain mobility that would be fatal for other living organisms.[2] Questions that are central to animal ethics or human philosophy, such as the boundaries of the individual, resist easy transfer to plants, and the idea of whole- or completeness in plants is quite complicated.[3] This article therefore turns to plant parts both as matter and concept. Tracing the terminology used to describe plant parts from botany to literary tropes, it shows how language ties together thought and development in these supposedly disparate areas, resulting in discursive networks of phytopoetic resonances.

But what exactly are phytopoetic resonances? In the context of this Special Issue, resonance (*Resonanz*) has been defined in reference to sociologist Hartmut Rosa as

> a relationship of mutual response, whereby a subject is affected by the world (in this case the plants) by perceiving them in their otherness and strangeness. This can be linked to the current discussion on a New Nature Writing (Lilley 2017), in which the work on a 'language of resonance' (Malkmus 2020) plays a central role. Deep attention in the perception of nature allows us to experience worldly connections beyond the human (Goldstein 2019). The focus is thus less on the question of an intelligence or sensuality of plants but an on opening of the human senses to the multifaceted signs of nature in order to listen, read, understand and make them accessible in the medium of human language.[4]

Related to this notion of resonances in the particular sense of non-humans affecting humans, I have elsewhere defined phytopoetics as the impact of plants on the human imagination, showing its effect in

2 Even if plants might not choose new locations actively, they are nonetheless agents of mobility, as cultural history shows (see Pollan, *The Botany of Desire* and Mancuso, *The Incredible Journey of Plants*), and many species, such as pea plants or *Mimosa pudica*, move body parts actively (see, for instance, Calvo with Lawrence, *Planta Sapiens*; and the work of Monica Gagliano at https://www.monicagagliano.com/).

3 In the context of emerging cell theory in the nineteenth century, German botanist and natural philosopher Alexander Braun emphasised that the plant is a *dividuum*, a divisible being, in contrast to the animal and human in-dividual. The term is also a potent concept in philosophy, anthropology, sociology and literature (see exemplarily Raunig, *Dividuum*). In *Die Stufen des Organischen und der Mensch* (*Levels of Organic Life and the Human*, 1928), philosopher and sociologist Helmuth Plessner located plants, animals and humans on three levels of life according to their boundaries and positionalities, characterising the plant's form both as 'realizing its boundary' and 'open', which raises complex questions about parts and wholes that are addressed in more detail in Gelderloos, *Biological Modernism*.

4 Dürbeck and Lu, 'Networks of plants and language of resonance'.

literature and culture.[5] This concept draws attention to the non-human agency in the resonant relationships that humans can have with nature, and it 'opens the human senses' not just to the 'signs of nature' writ large, but to some of their specific creators: plants. Developed in analogy to the notion of zoopoetics in animal studies, which entails the role of animals in the production of literature, phytopoetics describes moments in which plants co-create cultural artifacts, such as literature, or bring about cultural change.[6] In the context of my research, I have focused mostly on plants shaping how humans think, talk and write about sexuality and gender since the eighteenth century, looking at literary texts but also cultural shifts such as curricular censorship and legal reform, to point to the ways in which plants have been affecting the human imagination, which has often affected them in return.

While Rosa conceptualises the German term *Resonanz* in the singular as a specific relationship between the self and an other, 'resonance(s)' as both a countable and an uncountable English noun can have a range of meanings, which aptly highlights the multiplying effects I see emerging from the concept (this is also why I use it in the plural here). To cite Rosa in his own words:

> Following its Latin etymology, resonance is first and foremost an acoustic phenomenon – 're-sonare' meaning *to resound*. As we have seen through the example of the two tuning forks, it describes a specific relationship between two vibratory bodies whereby the vibration of one body prompts the other to itself vibrate in turn. If you strike one tuning fork in close proximity to another, the second will begin to vibrate at its own frequency. … Resonance is produced only when the vibration of one body stimulates the other to produce *its own frequency*.[7]

Resonances literally resound, and phytopoetic resonances thus create a discursive network of multiplying meanings that can change human understandings of self and vegetal other. As such, phytopoetic resonances are effects of resonant relationships and experiences with plants in language and culture (and, here, the focus is on plants in their specificity, intentionally not subsumed under nature as part of a whole).

5 Jacobs, 'Phytopoetics' and '"These lusting, incestuous, perverse creatures"'; see also related concepts in Ryan, 'Writing the lives of plants' and 'Phytopoetics'; and Vieira, 'Phytographia'.

6 See Moe, *Zoopoetics*; Driscoll and Hoffmann, *What is Zoopoetics?*; Middelhoff, Schönbeck, Borgards and Gersdorf, *Texts, Animals, Environments*.

7 Rosa, *Resonance*, p. 165.

Phytopoetic resonances are traces of discursive shifts or multiplicities in human thought brought about by plants, which this article locates in the way the botanical names of plant parts become operative as literary tropes, symbols and metaphors through languages and cultures (and the reverse direction), so that understandings of terms such as leaf, root, flower, stem and fruit multiply across different disciplines and discourses.

Before turning to the aforementioned plant parts in detail to trace their phytopoetic resonances, I would like to point to some of the work in plant studies that has inspired my thinking both methodologically and conceptually. Together with literary scholar Isabel Kranz, I am currently completing editorial work on *Pflanzen: Ein kulturwissenschaftliches Handbuch* (*Plants: A Cultural Studies Companion*) forthcoming with Metzler in German.[8] The *Companion* analyses the role of plants in culture, showing how integral they are to human flourishing. Its over forty entries made me see phytopoetic resonances everywhere, in the form of multiply layered discursive networks that expanded my understanding of how much plants have been shaping human language, expression and thought across centuries. In keeping with the idea of multiplication across a network of resonant relationships, this article is therefore indebted to a community of scholars and their research, compiled in the *Companion* and other work this article points to in its footnotes, and at times also coming together in the Literary and Cultural Plant Studies Network.[9] This article connects some ideas that emerged for me across the entries, without duplicating the in-depth analysis the entries present for their own arguments, while also adding different concepts. While the *Cultural Studies Companion* focuses predominantly on Western and at times specifically Germanophone contexts, phytopoetic ideas operate across many languages and cultures (whether destructively or constructively), and mutually imbricated processes of translation further

8 The *Companion* consists of four sections: 'Von der Morphologie zur Trope' (From morphology to trope), 'Kulturtechniken' (Cultural techniques), 'Räume des Wissen' (Spaces of knowledge) and 'Muster und Modelle' (Patterns and models). In this conceptual organisation that originated predominantly with Isabel Kranz, plant parts fill the first section, while the second turns to actions such cultivating, collecting, communicating and curing. The spaces in the third section range from the garden and the forest to the desert and outer space, while the last focuses on ways in which plants have served as models for artistic and pedagogical expression, such as the herbarium specimen, glass flowers and time lapse film.

9 See https://plants.arizona.edu and also Jacobs and Kranz, 'Einleitung'.

complicate one definitive understanding of plants or their parts. In the following pages, I turn to five plant parts in a series of brief vignettes, moving from leaf to root, then stem to flower and finally fruit.

LEAF

While travelling in Italy, German poet and naturalist Johann Wolfgang von Goethe penned a now famous sentence among his notes that has come to be understood as the premise of his botanical treatise *Metamorphose der Pflanzen* (*Metamorphosis of Plants*, 1790): 'Alles ist Blatt' or all is leaf.[10] While Goethe's botanical work aimed to prove that all plant parts develop from the leaf, or are variations thereof, which makes the leaf presumably both a part and the whole of the plant, the quote has taken on a life of its own that has just as much to do with the leaf as it does with the 'all'. Both literally and figuratively, all can mean everything, and this comprehensive idea of wholeness has made it a nearly universal signifier that continues to be quite popular. In examples named after Goethe's dictum, such as Giovanni Frangi's 2014/2015 exhibit of paintings, John T. Price's wide-ranging book of essays from 2022 and Tamas Dezsö's recent photographs, installations and sculptures, the distinct concept of the leaf, typically associated with ideas such as green, photosynthesis and plant, becomes 'all' and can suddenly represent planet and climate, cosmos and future.[11] In other words, the oft-cited 'all is leaf' has gone far beyond plant morphology, and it did so already in Goethe's work itself, which famously combined the form of the botanical treatise with poetry. Not unusual at a time in which natural philosophers such as Goethe simultaneously pursued several disciplines that are considered separate today, the poetic description of the part as a whole adds aesthetic and philosophical dimensions to the botanical understanding of his work.[12]

10 Goethe, *Schriften zur Morphologie*, p. 84.

11 Frangi, *Alles ist Blatt*; Price, *All Is Leaf;* Dezsö, 'Hypothese: Alles ist Blatt'.

12 Research on Goethe is of course vast, but see exemplarily Axer, Geulen and Heimes, *Aus dem Leben der Form*, Axer and Shields, 'The seed of an idea'; Bies, *Im Grunde ein Bild*, 'Staging the knowledge of plants' and '"Imagine a green plant shooting up from its root"'; Holmes, '"Beweglich und bildsam"'; Sullivan, 'Goethes

But leaf does not merely equate to 'everything'; rather, its specific meanings beyond botany are at the core of reading and writing. In English, you can leaf through a book, whose folio format is reminiscent of the Latin word for leaf (*folium*) and fall foliage, while pages are *Blätter* in German, *feuilles* in French, or φύλλα (*phylla*) in Greek. *Blatt*, the German term for leaf and page, brings together plants and reading, botany and literature, and it references the vegetal material from which writing paper is made. Reading, writing and even painting – human culture is unthinkable without plants.[13] Helga G. Braunbeck's entry on the leaf in the *Companion* expands on these cultural connections and their phytopoetic resonances across time. And indeed, the term for leaf is also central to other contexts that sustain humanity, such as baking and cooking, where lettuce, wine and vegetable leaves share the kitchen counter with sheets of dough (*feuilles*, phyllo/filo, etc.) – coming together with other plant parts to form new wholes. As the leaf is central to plant sustenance through photosynthesis, which in turn produces oxygen, it also synthesises both material and mental nourishment for humans – thus reminding us of the source of life.

ROOT

Scientific discoveries about roots have perhaps drawn most popular attention recently in the context of the so-called 'Wood Wide Web', the root system of forests that points to their interconnected community. Here too, questions of nourishment and communication intersect, though some of the conclusions drawn about what mycorrhizal root-fungi networks exchange have lately been called into question.[14] Regardless, roots have made for a potent literary trope long before these headlines and bestsellers, and related concepts like the rhizome

Metamorphose der Pflanzen' and 'Goethe's "leaf" and scales of the Anthropocene' as well as other entries in the 'The philosophical life of plants' project blog.

13 See exemplarily Aloi, *Why Look at Plants?*; Kranz, Schwan and Wittrock, *Floriographie*; McHugh, 'Plants and literature'; Middelhoff, 'Thinking and writing with leaves'; Nitzke, 'Arboreale Poetik'; Nitzke and Braunbeck, 'Arboreal imaginaries', Ryan, 'Writing the lives of plants'; Vieira, 'Phytographia'.

14 See Karst, Jones and Hoeksema, 'Positive citation bias'; Robinson et al., 'Mother trees'; Simard, *Finding the Mother Tree*; Wohlleben, *The Hidden Lives of Trees*; but also Wankhammer, 'Anthropomorphism, trope, and the *Hidden Life of Trees*'.

by Deleuze and Guattari have galvanized philosophy (in such robust ways that they received their own entry in the *Companion* by Georg Toepfer). As Johannes Wankhammer shows in his contribution about roots, rootedness is a concept associated with home and belonging, and hence an interconnected community, though it takes on a range of connotations, depending on the cultural context. While *Wurzeln* (roots) and *Verwurzlung* (rootedness) associate the same in German, their connection to soil (*Erde* or *Boden*) also conjures up the problematic 'blood and soil' (*Blut und Boden*) rhetoric of the Nazis, which tied belonging to one's place of origin and considered diasporic communities homeless.[15] The individual's longing to be part of a whole is violently rejected in contexts like these, which are intertwined with experiences of uprootedness in the form of flight, exile and migration.

While roots often appear in the plural and share strengths and weaknesses of/as a collective, the legend of the mandrake focuses on one root that is grown into an individual. Whether it is Hanns Heinz Ewers's *Alraune* (*Mandrake*, novel 1911, film 1928) or the *Harry Potter* series of the late 1990s and early 2000s, mandrakes feature readily in literary works and their cinematic adaptations, and the plant of the nightshade variety was already associated with fertility in the Bible.[16] Both aphrodisiac and poison, the mandrake is about reproduction as much as horror, as it is said to spring from the semen or other bodily fluids of hanged men and to let out blood-curdling screams when uprooted, which is why legend advises to let a starving dog pull it out.[17] Since mandrake roots bear a visual resemblance to human bodies, here the part is the whole, at least according to the ancient doctrine of signatures, which held that a similarity between the shape of a plant (part) and a human body part indicates its medicinal use.[18] With its loud screams,

15 See exemplarily Stehle, *Plants, Places, and Power.* In other cultural contexts, roots and soil evoke anti-colonial rhetoric: see exemplarily DeLoughrey, 'Yam, roots, and rot'.

16 See Fleisher and Fleisher, 'Fragrance of biblical mandrake'.

17 See Carter, 'Myths and mandrakes'.

18 The doctrine of signatures (*signatura rerum*) was widespread in various cultural and historical contexts (though Paracelsus is often named as the most prominent proponent) and suggested, for instance, that beans might help with kidney ailments, given their similar shape, or walnuts might support brain health. See exemplarily Böhme, *Signatura Rerum*.

the mandrake speaks to us humans, not just as a literary topos but also literally, thus phytopoetically calling attention to the unsettling admixture of violence and eroticism in our (hi)stories.[19]

STEM

A stem branching out is both a literal and symbolic sign of growth. A branch is the next generation, and while it is younger, weaker and protected by less hardy bark than the stem, it grows in its image. The tree of life has represented this principle of kinship and generation in the biological sciences at least since Darwin, as Christina Becher also pinpoints in her contribution to the *Companion*, and a *Stammbaum* (family tree, or literally stem-tree in German – an inversion of tree stem, *Baumstamm* and related to the word for tribe, *Stamm*) has translated this representation of evolutionary connections onto the local level of ancestry, albeit not without the problematic side effects of physiognomic pseudoscience and racialised eugenics.

While the root could be uprooted and lived on in the form of the mandrake, the branch cannot seem to trunk-ate its connection to the tree without cutting off its supply of nutrients – it would need to grow its own roots. Yet it can nonetheless 'branch out' to make new connections and diversify, as branches can be grafted onto different trees and thrive. When discussing parts and wholes in his *Kritik der Urteilskraft* (*Critique of Judgement*, 1790), Kant presents such a 'Pfropfreis auf einem anderen Stamm', a graft on another stem, as a parasitic appendage.[20] This understanding of grafting has been deployed in racist, antisemitic and ableist allegories, and it is connected to complicated genetic ideas of breeding and eugenics. Yet grafting can also be thought of as a way to sustain other plant parts without grown relations.[21] Parts can be exchanged to create new combinations, as the image of grafting foreshadows at the beginning of Goethe's *Wahlverwandtschaften* (*Elective Affinities*, 1809). In the present, this opens up possibilities for creating community and

19 Jacobs, 'Phytopoetics'.

20 Kant, *Kritik der Urteilskraft*, §64.

21 For more on grafting, see the contributions in Wirth, *Pfropfen, Impfen, Transplantieren*.

families of choice that are not tied to biological relations and ancestry.[22] Phytopoetic resonances thus remind us that wholes can make room for new parts and, as various parts come together, they make a new whole.

FLOWER

Flowers are mostly gendered feminine, both grammatically (*la flor*, *la fleur*, *die Blume* – to give just a few examples from gendered languages) and as tropes or symbols. Their colourful beauty and alluring scents have evolved to attract pollinators (as this plant part only exists in flowering plants), making blossoms not the head, as often imagined, but the botanical genitals of plants. When sexual reproduction in plants was discovered and popularised by Linnaeus's taxonomical system, it led to moral outrage, since the discovery of promiscuous pollen trading upended a long-held association of women and flowers as supposedly asexual creatures.[23] This botanical revelation resulted in waves of literary satire about the fear of vegetal eroticism and an anxiety about human 'parts'.[24]

Yet flowers, the part of the plant associated with courtship and love, have been sending such signals in various cultures for centuries. Whether in the form of love poems, the Victorian Language of Flowers that supposedly allowed you to encode secret messages, or the use of violets as a sign of recognition among lesbian women, flowers 'speak' and 'write', as Isabel Kranz shows in her contribution to the *Companion*.[25] Saying it *durch die Blume* or 'through the flower' is a synonym for encoded metaphorical speech itself, and simultaneously one of the most literal takes on phytopoetic resonances. The association of flowers with women also had a violent underbelly, such as the notion of defloration expressed in the images of J.J. Grandville's *Les fleurs animées* (*The Flowers Personified*, 1830) and lingering in Goethe's poem of 'Das Heideröslein' ('The little

22 See Jacobs, 'Eden's heirs'; Mortimer-Sandilands and Erickson, *Queer Ecology.*

23 See George, *Botany, Sexuality, and Women's Writing*; Schiebinger, *Nature's Body*; Shteir, *Cultivating Women, Cultivating Science*; Taiz and Taiz, *Flora Unveiled.*

24 See Jacobs, 'Plant parenthood', 'Phytopoetics' and '"These lusting, incestuous, perverse creatures"'.

25 See also Bataille, 'The language of flowers'; Kranz, 'The language of flowers'; Kranz, Schwan and Wittrock, *Floriographie*; Gagliano, Ryan and Vieira, *The Language of Plants.*

rose on the heath', 1771/1789), who pricks the boy trying to pick her – and even slurs for gay men like 'pansies'.[26] This plant part often seems to overshadow the others in a *pars pro toto* manner, and the flower circulates for its aesthetic value, both materially and metaphorically.

FRUIT

Fruit is the result of successful pollination and carries plant seed together with nutrients. What botany calls fruit is not always what is understood as such in common usage, since corn, bell peppers, cucumbers, beans and many more are erroneously classed as vegetables in the kitchen. Fruit's varied appeal to the senses takes us back to the nourishing and life-giving qualities of plants. As it holds the plants' seeds, fruit is a symbol of fertility, yet it also signals consumption, marking both an end and a new beginning. Being fruitful is associated with multiplying, and this expansion of the family tree or *Stammbaum* soon requires finding space for many new wholes – or are they just new parts? In the seed and the plant, questions of the origin and the original arise.

Fruit is also the most mobile plant part, due to human intervention, even though it often requires agriculture and settlement for its beginnings. Fruit travels through trade, and it has fuelled exploration and exploitation in the form of violent domination, plantation slavery and war.[27] Fruit as a plant part can be disconnected from its whole to such a degree that not everyone can picture the plant on which a pineapple grew or how new varieties of citrus are made – signalling the geographical and cultural zones it traverses to be called by the problematic moniker 'exotic', as Stephan Zandt details in his contribution to the *Companion*. As such, fruit has also become synonymous with capitalism, since the fruitful (re)produce. In this way, the banana became a symbol of the limitless access to goods and wares after the Fall of the Wall in the newly unified Germany.[28] Both apples and oranges can tell world history, yet they remind us that, if we focus only on one part, we might

26 See Jacobs, 'Rose'; Heinemann, 'Fucking pansies'.

27 See Haraway, 'Anthropocene, Capitalocene, Plantationocene, Chthulucene'; Klein, *Fruits of Empire*; Tuck and Yang, 'Decolonization is not a metaphor'.

28 Soluri, 'Accounting for taste'.

be missing the whole story.[29] In the same sense, networks of phytopoetic resonances bring together different worlds.

PARTS AND WHOLES IN THE DISCURSIVE NETWORK OF PHYTOPOETIC RESONANCES

Plant parts and wholes bring together recurring themes of reproduction, sustenance, community, communication and culture. As the leaf makes it possible to write down the history of someone's roots, trace the branches on a family tree, compose flowery poetry, or calculate the fruits of people's labour, plant parts are more than botanical specimens. Plants saturate human thought, the imagination and, most importantly for discursive networks of phytopoetic resonances, language. In doing so, they phytopoetically take part in the ongoing creation of culture, as the previous examples have shown briefly and exemplarily. The modularity of plant matter allows for an engagement with the many aspects of plants in isolation and, indeed, not all parts of the plant exist at all times or simultaneously, as botanical illustrations traditionally suggest. The circular, seasonal development that turns a seed into a stem with roots and leaves will eventually produce blossoming flowers that hold the promise of more fruit. Such a multiplication of parts leads to new wholes, just as the multiplication of meaning across these terms creates phytopoetic resonances across different disciplines, times and cultural contexts. Of course, we can also further dissect plants, dividing these parts into their ever-smaller ones, such as stamen, pistil, sepals, petals, pollen in a flower. We can also scale up our understanding of wholes into forests, meadows, fields and other landscapes – or nature writ large. Ultimately, the relationship of the part to the whole and vice versa is both a material and a conceptual one, showcasing the rich and vivid discursive networks of phytopoetic resonances across botany, literature and the everyday.

29 See Mazzoni, *Golden Fruit*; Pollan, *The Botany of Desire*.

REFERENCES

Aloi, G. 2018. *Why Look at Plants? The Botanical Emergence in Contemporary Art.* Boston: Brill.
https://doi.org/10.1163/9789004375253

Axer, E., E. Geulen and A. Heimes (eds). 2021. *Aus dem Leben der Form: Studien zum Nachleben von Goethes Morphologie in der Theoriebildung des 20. Jahrhunderts*. Göttingen: Wallstein.
https://doi.org/10.5771/9783835346024

Axer, E. and R. Shields. No date. 'The seed of an idea, the idea of a seed: Goethe's Urpflanze in the 21st century'. *The Philosophical Life of Plants*: https://www.plantphilosophy.org.uk/plants-and-philosophy-in-the-present/the-seed-of-an-idea-the-idea-of-a-seed-goethes-urpflanze-in-the-21st-century/ (accessed 1 October 2023).

Bataille, G. 1985. 'The language of flowers'. In V*isions of Excess: Selected Writings, 1927–1939*, pp. 10–14. Minneapolis: University of Minnesota Press.

Bies, M. Forthcoming. '"Imagine a green plant shooting up from its root": Goethe's vegetal poetics'. In J. Jacobs, I. Kranz and S. Nitzke (eds), *Plant Poetics: Literary Forms and Functions of the Vegetal*. Leiden / Boston: Brill.

Bies, M. 2012. *Im Grunde ein Bild: Die Darstellung der Naturforschung bei Kant, Goethe und Alexander von Humboldt*. Göttingen: Wallstein.

Bies, M. 2015. 'Staging the knowledge of plants: Goethe's elegy *The Metamorphosis of Plants*'. In M.H. Dupree and S.B. Franzel (eds), *Performing Knowledge, 1750–1850*, pp. 247–67. Boston: De Gruyter.
https://doi.org/10.1515/9783110421064-011

Böhme, J. 1651. *Signatura Rerum, Or the Signature of All Things*. London: John Macock/Gyles Calvert.

Calvo, P. with N. Lawrence. 2022. *Planta Sapiens: Unmasking Plant Intelligence.* New York: Norton.

Carter, A. 2003. 'Myths and mandrakes'. *Journal of the Royal Society of Medicine* **96** (3): 144–47.
https://doi.org/10.1177/014107680309600312

DeLoughrey, E. 2011. 'Yam, roots, and rot: Allegories of the provision grounds'. *Small Axe* **15** (1): 8–75.
https://doi.org/10.1215/07990537-1189530

Dezsö, T. 2023. 'Hypothese: Alles ist Blatt'. Translated by Patrick Ploschnitzki. *ReVue:* https://www.re-vue.org/beitrag/feldarbeit-tamas-deszoe-alles-ist-blatt (accessed 15 July 2024).

Dürbeck, G. and Y. Lu. 2023. 'Networks of plants and language of resonance in science and literature'. *The University of Sydney School of Languages and Cultures*: https://web.archive.org/web/20240307191625/https://slc-events.sydney.edu.au/calendar/networks-plants-language-resonance-science-literature-conference/ (retrieved with the Wayback Machine, accessed 7 March 2024).

Driscoll, K. and E. Hoffmann. 2018. *What Is Zoopoetics? Texts, Bodies, Entanglement*. New York: Palgrave Macmillan.
https://doi.org/10.1007/978-3-319-64416-5

Fleisher, A. and Z. Fleisher. 1994. 'The fragrance of biblical mandrake'. *Economic Botany* **48**: 243–51.
https://doi.org/10.1007/BF02862323

Frangi, G. 2014/15. *Alles ist Blatt*. Orto Botanico, Padova: https://www.giovannifrangi.it/exhibitions/exhibition/alles-ist-blatt/ (accessed 22 November 2023).

Gagliano, M., J.C. Ryan and P. Vieira (eds). 2017. *The Language of Plants: Science, Philosophy, Literature*. Minneapolis: University of Minnesota Press.

Gelderloos, C. 2019. *Biological Modernism: The New Human in Weimar Culture*. Evanston: Northwestern University Press.
https://doi.org/10.2307/j.ctvrxk3vh

George, S. 2007. *Botany, Sexuality, and Women's Writing, 1760–1830: From Modest Shoot to Forward Plant*. Manchester: Manchester University Press.

Goethe, J.W. von. 1987. *Schriften zur Morphologie*. D. Kuhn (ed.). In H. Birus et al. (eds) *Sämtliche Werke: Briefe, Tagebücher und Gespräche*, vol. 24. Frankfurt am Main: Deutscher Klassiker Verlag.

Goldstein, J. 2019. *Naturerscheinungen: Die Sprachlandschaften des Nature Writing*. Berlin: Matthes & Seitz.

Haraway, D. 2015. 'Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making kin'. *Environmental Humanities* **6** (1): 159–65.
https://doi.org/10.1215/22011919-3615934

Heinemann, C. 2016. 'Fucking pansies: Queer poetics, plant reproduction, plant poetics, queer reproduction'. BA thesis, Goldsmiths, University of London: https://www.academia.edu/32408905/FUCKING_PANSIES_Queer_Poetics_Plant_Reproduction_Plant_Poetics_Queer_Reproduction (accessed 1 October 2023).

Holmes, T. 2017. '"Beweglich und bildsam": Goethe, plants, and literature'. *Literatur* für *Leser:innen* **40** (2): 91–105.
https://doi.org/10.3726/LFL022017k_91

Jacobs, J. 2016. 'Plant parenthood: The fear of vegetal eroticism'. In C. Picard (ed.) *Imperceptibly and Slowly Opening*, pp. 166–72. Chicago: The Green Lantern Press.

Jacobs, J. 2019. 'Phytopoetics: Upending the passive paradigm with vegetal violence and eroticism'. *Catalyst: Feminism, Theory, Technoscience* **5** (2): 1–18.
https://doi.org/10.28968/cftt.v5i2.30027

Jacobs, J. 2022. '"These lusting, incestuous, perverse creatures": A phytopoetic history of plants and sexuality'. *Environmental Humanities* **14** (3): 602–17.
https://doi.org/10.1215/22011919-9962926

Jacobs, J. 2023. 'Plant sexuality'. In M. Marder and G. Tusa, *Contemporanea: A Glossary for the XXI Century*, pp. 163–74. Boston: MIT Press.
https://doi.org/10.7551/mitpress/14911.003.0027

Jacobs, J. 2019. 'Eden's heirs: Biopolitics and vegetal affinities in the gardens of literature'. G. Aloi, *Why Look at Plants?* pp. 120–23.
https://doi.org/10.1163/9789004375253_014

Jacobs, J. 2021. 'Rose'. In J.C. Ryan, P. Vieira and M. Gagliano (eds), *The Mind of Plants: Narratives of Vegetal Intelligence*, pp. 307–16. Santa Fe: Synergetic Press.

Jacobs, J. and I. Kranz. 2017. 'Einleitung: Das literarische Leben der Pflanzen: Poetiken des Botanischen'. *Literatur für Leser:innen* **40** (2): 85–90. https://doi.org/10.3726/LFL022017k_85

Jacobs, J. and N. Seymour. 2024. 'Asexual ecologies'. In K.J. Cerankowski and M. Milks, *Asexualities: Feminist and Queer Perspective*, pp. 23–36. Second edition. New York: Routledge. https://doi.org/10.4324/9781003178798-4

Kant, I. 1983. *Kritik der Urteilskraft.* In W. Weischedel (ed.) *Werke in sechs Bänden*, vol. 5. Darmstadt: Wissenschaftliche Buchgesellschaft.

Karst, J., M.D. Jones and J. D. Hoeksema. 2023. 'Positive citation bias and overinterpreted results lead to misinformation on common mycorrhizal networks in forests'. *Nature Ecology & Evolution* **7**: 501–11. https://doi.org/10.1038/s41559-023-01986-1

Klein, S. 2020. *The Fruits of Empire: Art, Food, and the Politics of Race in the Age of American Expansion*. Oakland: University of California Press.

Kranz, I. 2017. 'The language of flowers in popular culture and botany'. In Vieira, Gagliano and Ryan (eds). *The Language of Plants*. pp. 193–214.

Kranz, I., A. Schwan and E. Wittrock (eds). 2016. *Floriographie: Die Sprachen der Blumen*. Paderborn: Wilhelm Fink.

Kranz, I. and J. Jacobs (eds). Forthcoming. *Pflanzen: Ein kulturwissenschaftliches Handbuch*. Berlin: Metzler.

Lilley, D. 2018. 'New British nature writing'. In G. Garrard (ed.) *Ecocriticism: Oxford Handbooks Online*, n.p. Oxford: Oxford University Press. https://doi.org/10.1093/oxfordhb/9780199935338.013.155

Malkmus, B. 2020. '"Die Poesie der Erde ist nie tot": Robert Macfarlane gibt Landschaften ihre Sprache zurück'. *Neue Rundschau* **131** (1): 18–26.

Mancuso, S. 2020. *The Incredible Journey of Plants*. New York: Other Press.

Mazzoni, C. 2018. *Golden Fruit: A Cultural History of Oranges in Italy*. Toronto: University of Toronto Press. https://doi.org/10.3138/9781487515768

McHugh, S. 2021. 'Plants and literature'. *Oxford Research Encyclopedias, Literature*: https://oxfordre.com/literature/display/10.1093/acrefore/9780190201098.001.0001/acrefore-9780190201098-e-1267;jsessionid=8D8D61FDC59520E72DE3E00603727518?rskey=zlNh85 (accessed 1 October 2023).

Middelhoff, F. 2022. 'Thinking and writing with leaves: Poplar sympoetics in Romanticism'. *Green Letters* **25** (4): 1–21. https://doi.org/10.1080/14688417.2022.2029718

Middelhoff, F., S. Schönbeck, R. Borgards and C. Gersdorf (eds). 2019. *Texts, Animals, Environments: Zoopoetics and Ecopoetics*. Freiburg im Breisgau: Rombach.

Moe, A. 2014. *Zoopoetics: Animals and the Making of Poetry*. Lanham: Lexington.

Mortimer-Sandilands, C. and B. Erickson. 2010. *Queer Ecologies: Sex, Nature, Politics, Desire.* Bloomington: Indiana University Press.

Nitzke, S. and H.G. Braunbeck (eds). 2021. 'Arboreal imaginaries: An introduction to the shared cultures of trees and humans'. *Green Letters* **25** (4): 341–55. https://doi.org/10.1080/14688417.2021.2072633

Nitzke, S. 2020. 'Arboreale Poetik, oder: Mit Bäumen erzählen'. In S. Heimgartner, S. Nitzke and S. Sauer-Kretschmer (eds), *Baum und Text: Neue Perspektiven auf verzweigte Beziehungen*, pp. 165–96. Berlin: Bachmann.

Pollan, M. 2001. *The Botany of Desire: A Plant's-Eye View of the World.* New York: Random House.

Price, J.T. 2022. *All Is Leaf: Essays and Transformations.* Iowa City: University of Iowa Press. https://doi.org/10.1353/book101121

Raunig, Gerald. 2016. *Dividuum: Machinic Capitalism and Molecular Revolution*. Cambridge: MIT Press.

Robinson, D.G. et al. 2023. 'Mother trees, altruistic fungi, and the perils of plant personification'. *Trends in Plant Science*. https://doi.org/10.1016/j.tplants.2023.08.010

Rosa, H. 2019. *Resonance: A Sociology of our Relationship to the World*. Cambridge: Polity.

Ryan, J.C. 2020. 'Writing the lives of plants: Phytography and the botanical imagination'. *a/b: Auto/Biography Studies* **35** (1): 97–122. https://doi.org/10.1080/08989575.2020.1720181

Ryan, J.C. 2023. 'Phytopoetics: Human-plant relations and the poiesis of vegetal life'. In J. Fiedorczuk, M. Newell, B. Quetchenbach and O. Tierney (eds), *The Routledge Companion to Ecopoetics*, pp. 117–26. New York: Routledge.

Sandford, S. 2022. *Vegetal Sex: Philosophy of Plants*. New York: Bloomsbury. https://doi.org/10.5040/9781350274969

Schiebinger, L. 1993 *Nature's Body: Gender in the Making of Modern Science*. Boston: Beacon Press.

Shteir, A.B. 1996. *Cultivating Women, Cultivating Science: Flora's Daughters and Botany in England, 1760–1860*. Baltimore: Johns Hopkins University Press. https://doi.org/10.56021/9780801851414

Simard, S. 2021. *Finding the Mother Tree: Discovering the Wisdom of the Forest.* New York: Vintage.

Soluri, J. 2002. 'Accounting for taste: Export bananas, mass markets, and Panama disease'. *Environmental History* **7** (3): 386–410. https://doi.org/10.2307/3985915

Stehle, M. 2023. *Plants, Places, and Power: Toward Social and Ecological Justice in German Literature and Film.* Rochester: Camden House. https://doi.org/10.1515/9781800108707

Sullivan, H.I. No date. 'Goethe's "leaf" and scales of the Anthropocene: The vegetal versus the geological'. *The Philosophical Life of Plants:* https://www.plantphilosophy.org.uk/j-w-goethe-philosopher-botanist/ (accessed 1 October 2023).

Sullivan, H.I. 2018. 'Goethes *Metamorphose der Pflanzen*: Die Materie des Grünen'. In S. Grimm and R. Bartosch (eds). *Die Materie des Geistes: Der material turn im Kontext von Bildungs- und Literaturgeschichte um 1800*, pp. 77–99. Heidelberg: Winter.

Taiz, L. and L. Taiz. 2017. *Flora Unveiled: The Discovery and Denial of Sex in Plants*. Oxford: Oxford University Press. https://doi.org/10.1093/oso/9780190490263.001.0001

Tuck, E. and K.W. Yang. 2012. 'Decolonization is not a metaphor'. *Decolonization: Indigeneity, Education & Society* **1** (1): 1–40.

Vieira, P. 2015. 'Phytographia: Literature as plant writing'. *Environmental Philosophy* **12** (2): 205–20. https://doi.org/10.5840/envirophil2015101523

Wankhammer, J. 2017. 'Anthropomorphism, trope, and the *Hidden Life of Trees*: On Peter Wohlleben's rhetoric'. *Literatur für Leser:innen* **40** (2): 55–67. https://doi.org/10.3726/LFL022017k_139

Wirth, U. (ed.) 2011. *Pfropfen, Impfen, Transplantieren*. Berlin: Kadmos.

Wohlleben, P. 2015. *The Hidden Lives of Trees: What They Feel, How They Communicate—Discoveries from a Secret World*. Vancouver: Greystone Books.

Joela Jacobs is Assistant Professor of German Studies at the University of Arizona and the founder of the Literary and Cultural Plant Studies Network (plants.arizona.edu). Her research and publications focus on nineteenth to twenty-first century German-language literature and film, Animal and Plant Studies, Environmental Humanities, Jewish Studies, the History of Sexuality, and the History of Science. Her monograph, *Animal, Vegetal, Marginal,* about the (non)human in the literary grotesque (*die Groteske*) from Panizza to Kafka will appear with Indiana University Press in 2025.

Email: joelajacobs@arizona.edu