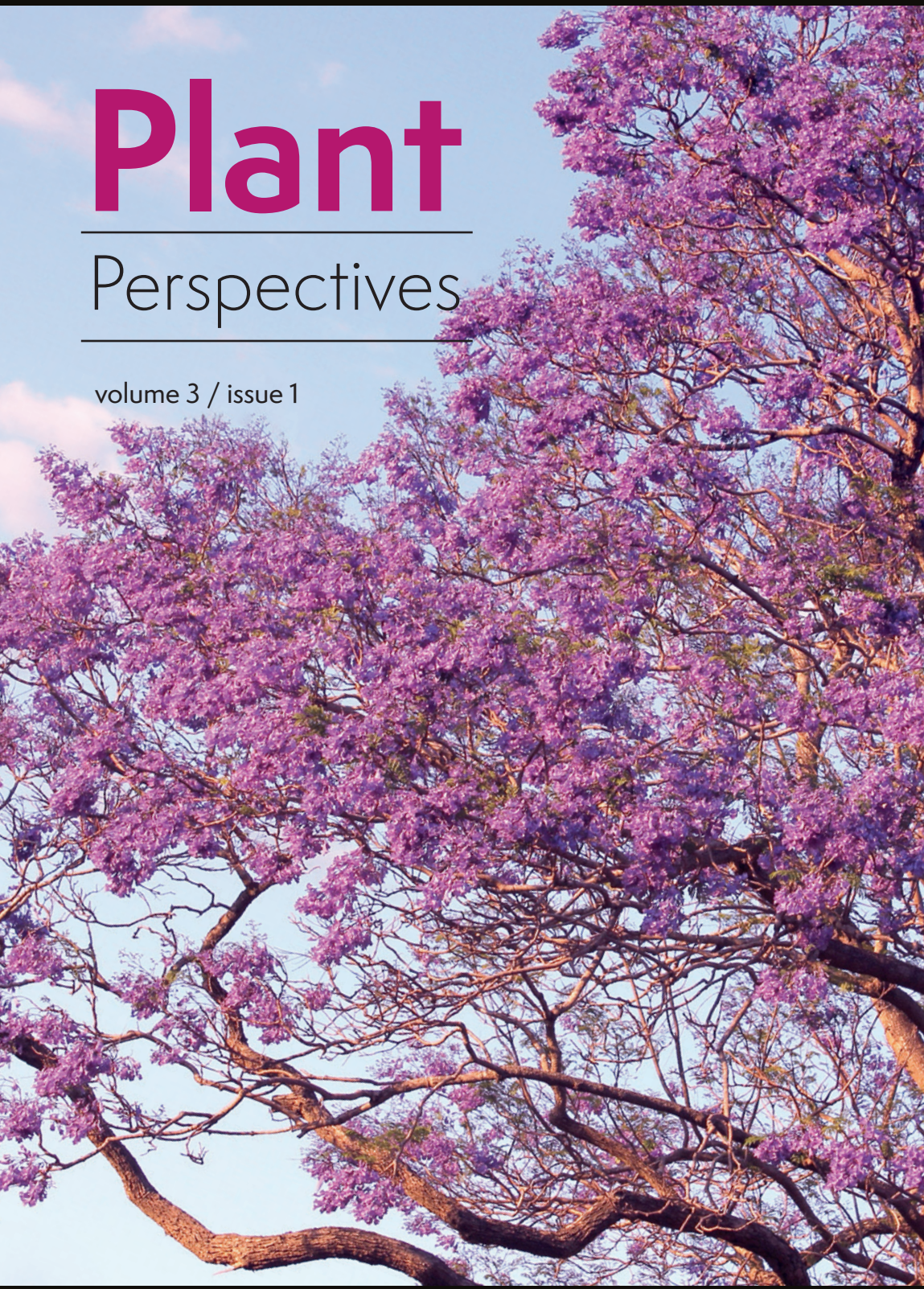


Plant Perspectives

volume 3 / issue 1

Plant Perspectives

An Interdisciplinary Journal

volume 3 / issue 1 - 2026

EDITED BY

JOHN CHARLES RYAN

ISSN: 2753-3603

PLANT PERSPECTIVES NO. 3.1/2026

EDITOR: *John Charles Ryan* / Adjunct Senior Research Fellow, Nulungu Institute, University of Notre Dame, Australia

DEPUTY EDITOR: *Isis Brook* / Visiting Research Fellow, Bath Spa University

ASSOCIATE EDITORS

Clare Hickman / Environmental and Medical History, Newcastle University
Historic gardens and landscapes; past botanic collecting and collections; cultural histories of natural spaces and plants that have been classed as having therapeutic properties

Diego Molina / Royal Holloway, University of London
Plant-human interactions in Latin America; environmental history of plants and botanical science (e.g. travellers, scientific representation of plants, botany and power); plants in cities (especially in the tropics); photography and plants

Niall Peach / University of Cincinnati
Vegetal–human entanglements in Mexico and the Caribbean: Rural and watery spaces, agribiopolitics and plants ('garden' sites); Blackness, Indigeneity, and environment: belonging and alternative reworlding with plants.

Jon Pitt / East Asian Studies Department, University of California, Irvine
Entanglements of plant life and various forms of literature: fiction, poetry, SF, horror, nature writing, etc.; film (narrative, documentary, experimental) and sound media; East Asia

Laura Pustarfi / California Institute of Integral Studies
Trees; Continental philosophy; ethics; psychedelic plants

Mardi Reardon-Smith / ADM+S Centre, Monash University
Environmental anthropology and science and technology studies (STS); invasive plant species; traditional knowledges of biological resources; environmental management; political ecology

Mariko O. Thomas / Skagit Valley College
More-than-human communication; plant storytelling; human-plant relationships; ecocultural identity; magic and mythology; environmental justice

Kathryn Van Wert / English, Linguistics, and Writing Studies, University of Minnesota Duluth
Literary representations of human-plant relationships from the modernist period forward; ecopoetics; vegetal alterity; plants as teachers

Rachel Zollinger / Endowed Assistant Professor (incoming), Art Education, University of Arkansas
Place and plant pedagogies; plants as metaphors, collaborators, and symbionts; art-based methodologies and plants

REVIEWS EDITORS

Subarna De / Chair Group Contemporary History, University of Groningen, Netherlands
Kristan M. Hanson / Curator of Collections and Exhibitions, Fleming Museum of Art, University of Vermont

EDITORIAL BOARD

Antonio Allegretti, Yota Batsaki, Emily Brady, Anna Burton, Sophie Chao, Shiuhhuah Serena Chou, Jonathan Code, Norman Dandy, Stefan Dorondel, Felix Driver, Julia Fine, Tom Greaves, James Hatley, Christina Hourigan, Luke Keogh, Joela Jacobs, Karen Jones, Andy Letcher, David Macauley, Susan McHugh, Sara L. Middleton, Suzanne Moss, Solvejg Nitzke, Marcello di Paola, Mykyta Peregrym, Hannah Pitt, Jayson Maurice Porter, Swarna Rangarajan, Maya L. Shamsid-Deen, Paolo Squatriti, Doug Stewart, Barry Taylor, Steven White

CREATIVE SUBMISSIONS EDITORS

Prudence Gibson / University of New South Wales
Kristina Van Dexter / Willamette University

POST-GRADUATE REPRESENTATIVE

Goutam Majhi / Sadhan Chandra Mahavidyalaya (affiliated with the University of Calcutta, India)
Caroline Kreysel / Vrije Universiteit Amsterdam

OUTREACH COORDINATOR

Eline Tabak / The University of Oulu

Plant Perspectives is a Subscribe to Open journal, open access with no fees for authors due to library support. A Subscribe to Open subscription costs £220/€259/$275 and may be purchased by contacting subscriptions@liverpool.ac.uk. Please encourage your library to support the journal.

©2026 THE WHITE HORSE PRESS
ISSN: 2753-3603

Cover and Layout Design / *Stefania Bonura - Graphics Web & Books*

Plant Perspectives

An Interdisciplinary Journal

volume 3 / issue 1 - 2026

BOOK REVIEWS

John Charles Ryan

Editorial. Plants in Places

PLANT PERSPECTIVES 3/1 - 2026: 5–10
doi: 10.3197/whppp.63876246815920
OPEN ACCESS CC BY 4.0 © THE AUTHOR

his issue of *Plant Perspectives* provides further testimony to the generative range of research emerging from interdisciplinary approaches to plants. Despite conceptual and methodological variations, the work collected here reflects an intensive focus on place – broadly defined – from the microcosmic to the macrocosmic. Underscoring how vegetal life is always geographically and topographically embedded, the articles, poems and reviews advance a reexamination of place in terms of flora, human-vegetal relations and botanical futures. Accordingly the issue aligns with recent anthropological research on collaborative human engagements with plants in creating – and dwelling in – place (Alkan and Calkins 2025).

Through plants' sessile anchoredness in a habitat – whether wild, suburban or urban – space becomes place. If space is deficient in social connections, values and meanings – as a nondescript abstraction or geometric *tabula rasa* – then plants are essential to transforming space into place. Consider, for instance, how botanical life began to populate and reclaim Chernobyl's exclusion zone just three years after the nuclear catastrophe (Thompson 2019). As this example of floristic flourishing reveals, place emerges as someone – human or more-than-human – attributes meaning to a space, infusing it with the vibrant affects and memories held by individuals and communities.

Sense of place arises from a distinct feeling for a place as minds, bodies, sensoria and experiences converge. As this issue demonstrates, a sense of place through flora – redwoods, jacarandas, mulberries, cannabis, wax palms and Örö pines – is fundamental to belonging and identity. Sense of place intensifies through actions, exertions and recollections underlain by the manifold sensory faculties of vision, audition, olfaction, gustation, somatosensation, proprioception and thermoception. For writers such as Henry David Thoreau, sense of place is a corporealized – palpable and tasted – spatiality (Ryan 2015). In turn, sense of place engenders topophilia, an abiding attachment to place predicated on affection and devotion, as theorised by geographer Yi-Fu Tuan (1977) and philosopher Gaston Bachelard (1994).

From street trees to household plants, from mustard fields to kelp beds, the vegetal world is integral to place perception. Aristotle conceptualised place in terms of time, motion and locomotion, or what he called *change of place*. For Aristotle, place imparts form and shape to bodies within the parameters of length, breadth and depth (Barnes 1991: 52). In other words, place is 'the boundary of the containing body at which it is in contact with the contained body' (Aristotle in Barnes 1991: 57). According to this conception, place pulsates with respect to the body – or bodies – enclosed within its demarcations. Philosophy categorises this theory of place as *phenomenological* – entailing sensory apprehension of the world's complexities – and *phytophenomenological* vis-à-vis the experience of plants. Neologisms such as *floratopaesthesia* attempt to particularise the sense of place manifesting through iterative engagement with plants over time and seasons (Ryan 2012: 307).

In geography, anthropology and cognate disciplines, studies of place have been marked by an alternation between upholding the value of sense of place and critiquing the ubiquity of senseless space. Proposed by social scientist Marc Augé (2008), the concept of *non-place* points to locations of excessive information and space – warehouse-size supermarkets, megastores, hub airports, motorways and skyscrapers. Yet what happens when plants encroach upon the nothingness of non-places? At Singapore's Changi Airport, for instance, a lively cohort of bamboos, cacti, orchids, sunflowers and water lilies divert visitors' attention away from the cold emptiness of the structure's interiority (Seo 2021). In these settings – if only transiently - plants nurture a sense of place, countering what geographer Edward Relph (1976) termed *placelessness* as a feeling of disorientation in response to homogenised natural and cultural environments devoid of character – from loblolly pine plantations to central business districts.

Concerted attention to place weaves through this issue's six articles. Thomas Storey examines the entwinement of arboreality and technology in Richard Powers's *The Overstory*. In the eight years since its publication, the novel has become a significant object of study for its narrativisation of plant cognition research endowing trees with expressive agencies. While affirming popular writing's ability to inform a wider audience about tree percipience, Storey argues that technological determinism is an inescapable element of the work, reflecting the interpenetration of global ecologies and digital infrastructure. The craft

of Powers's fiction, however, is its reconciling of the technological and the arboreal where the digital is not an antagonist but rather a vector of interdependence.

From the old-growth forests of California and the Pacific Northwest to the jacarandas of Australia, Elizabeth Oriel's contribution continues the textual and discourse emphasis central to Storey's approach but within a very different context. Although native to south-central South America, jacarandas have been planted worldwide as vegetal agents transforming colonial ambitions into contemporary placemakings. Adopting a generous temporal purview, Oriel assessed accounts of jacaranda blooming cycles published in Australian newspapers between 1900 and 2023. Inspired by Edward Casey's place studies, the article characterises jacaranda as an affective actant, moulding societies and mirroring attitudes towards the land while traversing the gulf between human culture and sylvan nature. Oriel's analysis of news content reveals how the colours, forms, sensations, fragrances and atmospheres of jacaranda flowering intersect with local place-generative processes fortifying identity and belonging.

Turning from Australia to the Central Virginia region of the United States, Alissa Ujie Diamond elucidates the cultural history of white mulberry in conjunction with the racial-capitalist legacies of Charlottesville and the author's own genealogy. The colonial impetus to initiate a silk industry introduced mulberry to Virginia from England and also attracted Diamond's European ancestors to North America. The article's nuanced narrative approach entails a genealogical co-tracing between personhood (the author), neighborhood (Charlottesville) and planthood (mulberry). The outcome is an 'entangled genealogy' mingling heterogeneous epistemological forms – from the historical, spatial and place-based to the arboreal, subjective and scholarly.

Shifting from rural Virginia to urban California, Magaly Ordoñez explores Latinx relationships to cannabis through a queer, feminist, interdisciplinary and ethnographic methodology. The model of cannabis research delineated therein presents high potential for application to communities outside Ordoñez's Los Angeles focus. The article problematises both the racial politics surrounding cannabis since the early twentieth century and the plant's more recent commodification within the mainstream American cannabis industry. The underside of decriminalisation is the dilution of ethnobotanical traditions centralising the

species as a healing medium. As the United States, Uruguay, Thailand and other countries legalise the plant for recreational and/or medical purposes, Ordoñez's approach offers timely insight into the social implications of cannabis as a vegetal ally.

In the context of South America, Diego Molina probes the history of the wax palm, enshrined in 1985 as Colombia's national tree. Native to the country's Andean forests, the species is the world's tallest palm. A Special Issue of Plant Perspectives on palms is forthcoming. Molina's foray highlights wax palm conservation efforts necessitating desecularisation – specifically a movement away from the traditional harvesting of young leaves for the Catholic observance of Palm Sunday. This social and religious transformation has demanded interaction between conservationists, botanists, news media and local communities to reinforce the tree's biocultural significance as Colombia's arboreal ambassador. Molina's analysis identifies the tension rising between the production of vegetal icons for nationalist objectives and the conservation of botanical life for the future of ecological wellbeing.

In her arts-based research on the pines of southwestern Finland, Annette Arlander articulates the potential of the 'undisciplinary method' of talking with trees. The project Pondering with Pines resulted in video-based works and podcast episodes in which pine trees participated as voiceful subjects in their own right. Featuring transcripts of her conversations, the article weighs the possibilities and impossibilities of conversing with plants as a research technique. Arlander's emplaced contribution offers a segue into the poems 'Betula Papyrifera' by Nicholas Robinette and 'the plants to live by' penned by Pujita Guha. The issue concludes with Heather Martin's review of Amitav Ghosh's *Smoke and Ashes: Opium's Hidden Histories* and Ximena Sevilla's review of Diego Molina's *Planting a City in the Tropical Andes: Plants and People in Bogotá, 1880 to 1920*.

Now in its third year, *Plant Perspectives* accepts and publishes submissions on a rolling basis, ahead of their compilation into issues. On behalf of the editorial team, I encourage you to consider the journal as a potential home for your work.

REFERENCES

Alkan, Hilal and Sandra Calkins. 2025. 'Making place with plants: An introduction'. *The Cambridge Journal of Anthropology* **43** (2): 1–13. https://doi.org/doi:10.3167/cja.2025.430202.

Augé, Marc. 2008. *Non-Places: An Introduction to Supermodernity*. London: Verso.

Bachelard, Gaston. 1994. *The Poetics of Space*. Boston: Beacon Press.

Barnes, Jonathan (ed.) 1991. *The Complete Works of Aristotle*. Princeton: Princeton University Press.

Relph, Edward C. 1976. *Place and Placelessness*. London: Pion.

Ryan, John C. 2012. *Green Sense: The Aesthetics of Plants, Place, and Language*. Oxford: TrueHeart, 2012.

Ryan, John C. 2015. 'Sense of place and sense of taste: Thoreau's botanical aesthetics'. *Interdisciplinary Humanities: The Refereed Journal of HERA (Humanities Education and Research Association)* **32** (3): 63–78.

Seo, Ducksu. 2021. 'Articulate design thinking for sustainable airport environment: A case study of Singapore Changi Airport T3'. *Transportation Research Procedia* **56**: 136–142. https://doi.org/10.1016/j.trpro.2021.09.016.

Thompson, Stuart. 2019. 'How plants reclaimed Chernobyl's poisoned land'. *BBC*, 1 July: https://www.bbc.com/future/article/20190701-why-plants-survived-chernobyls-deadly-radiation (accessed 1 February 2026).

Tuan, Yi-Fu. 1977. *Space and Place: The Perspective of Experience*. Minneapolis: University of Minnesota Press.

Thomas Storey

Media Ecologies and Transcendent Technology in Richard Powers's *The Overstory*

PLANT PERSPECTIVES 3/1 - 2026: 11–33
doi: 10.3197/whppp.63845494909747
OPEN ACCESS CC BY 4.0 © THE AUTHOR

ABSTRACT

Often cited as a preeminent text of contemporary environmental fiction, Richard Powers's *The Overstory* is a literary attempt to bridge the gap between the human and the nonhuman and reveal the entanglement of their shared ecological well-being. The novel carries out this project by providing vegetal lifeforms, specifically trees, with some communicative capacity. They are able to express themselves, both through chemical signals, relayed across networks of fungi and other organic lifeforms, and through an affective, transcendental mode of communication. Powers therefore evokes both the scientific discourse around the so-called 'Wood Wide Web', and the Romantic notion of nature as a vector for transcendent experience. However, through its emphasis on a nonhuman media ecology and on technology as a mode of communication, *The Overstory* also reveals how, in the context of the Anthropocene, technological mediation has become inescapable in any interaction with nature.

KEYWORDS

Anthropocene, ecology, digitality, transcendence, post-anthropocentricism, environmentalism

INTRODUCTION: ENTANGLED IN THE WOOD WIDE WEB

Within the discourse surrounding the Anthropocene, the competing claims of kinship and anthropocentricism work on each other dialectically, without reaching any sort of final conclusion. This contestation reveals the shifting meanings attributed to nature within the Anthropocene, an era in which a self-conscious awareness of environmental degradation is inescapable. While anthropocentricism reflects the realities of capitalist accumulation and extraction, the claims of ecological kinship are often tied up with forms of environmentalism, in which a potential alternative means of understanding and interacting with nature – one based on conservation, symbiosis and communication – comes to the fore. Within contemporary literature, environmentalism has manifested an eco-poetics that seeks to renew and revise conceptions of the natural world, while also offering a politics for resisting the environmental degradation registered by the concept Anthropocene. This is the challenge taken on by

Richard Powers's novel *The Overstory*, which makes a claim for a model of symbiotic ecological thinking as a reflection of actual embodied existence. In doing so, it reveals how conceptions of nature within the Anthropocene have been modified to suit both a digital era of technological saturation and one in which ecological concerns have taken on a radical tenor.

The Overstory's response to these concerns is to attempt to give nature a voice, one that is to some degree legible to humans.. Trees are depicted as communicative entities, able to transmit meaning both through chemical signals (the discovery of which is dramatised within the novel in the tale of scientist Patricia Westerford) and through networks of connection that both include and exceed the human characters of the novel. The novel takes as its starting point the contemporary discourse about the 'Wood Wide Web'; an understanding of nature in general, and trees and fungi in particular, as participating in a form of networked communication that mirrors digital networks. Merlin Sheldrake, one of the most prominent theorists of this phenomenon, describes such communication as the passage of 'a variety of substances, from nutrients to signalling compounds' between 'plants via fungal connections'. According to Sheldrake, this implies that 'plants are socially networked by fungi', although, as he notes, the networks established between such distinct forms of vegetal life are 'inconceivably complicated' and their implications are 'huge and still poorly understood'.[1] Powers has cited the ideas around the Wood Wide Web, or 'Nature's internet', as the concept has been labelled, as a fundamental inspiration for the book, describing such forms of communication as an example of trees being 'wired up' in 'complex and identifiable ways' that are based on symbiosis and reciprocity. As Powers stated in an interview with the *New York Times*, the 'reciprocal interdependence and cooperation across

1 Merlin Sheldrake, *Entangled Life* (New York: Random House, 2020), p. 17; It is worth noting that many scientists have contested the Wood Wide Web theory of tree communication and have suggested that its claims of interspecies communication go too far. Sheldrake himself has admitted that the metaphor of the Wood Wide Web is problematic, as it suggests a model of 'caring, sharing, and mutual aid' that doesn't exist in nature: Sheldrake, *Entangled Life*, p. 152.

the species barrier' evident in this type of tree-fungi communication introduced a 'whole new way of looking at a forest' to him.[2]

The broad cultural appeal of the Wood Wide Web may lie in its ability to register the complexity of the natural world, a complexity that mirrors the opacity of the technological systems upon which it is modelled. A cybernetic ecological system, in which a series of feedback loops within an interconnected network determine potential growth and development, is given material form by such a conception. As Robert Macfarlane noted in a *New Yorker* article on Sheldrake's work, attempts to map the 'intricacy of relation' of fungal connections between plants were reminiscent of 'attempts ... to map the global Internet: a firework display of meshing lines and colours'.[3] The imposition of the technological upon nature, the modelling of ecological forms of being in terms of networked digitality or cybernetic systems, and the opacity that the biosphere therefore accrues, also play out in literary form in *The Overstory*. From this perspective, the discourse around the Wood Wide Web, and related forms of technologised nature, risks reiterating the idealisation of nature in an inverse form; through its ability to co-opt technological models, nature becomes a synthesised, computable and ultimately quantifiable quantity, an extractible resource. These ideas therefore do little to redress the separation between the social and the environmental that is at the heart of capitalist conceptions of nature. Given all this, we can see how the spectre of idealisation returns again in a more synthesised biotechnological form within the Wood Wide Web.

In the novel, Westerford is depicted as a pioneering researcher into tree communication who has her findings ridiculed by the larger scientific community, before eventually being vindicated as others catch up with her research (her story is based on the life of Canadian scientist Suzanne Simard, who first introduced some of the ideas behind the Wood Wide Web to the world of dendrology). What Westerford discovers is that 'wounded trees send out alarms that other trees smell'. The maples she studies signal each other in 'an airborne network' and could

2 'Richard Powers on What We Can Learn From Trees', *The New York Times*, 28 Sept. 2021: https://www.nytimes.com/2021/09/28/opinion/ezra-klein-podcast-richard-powers.html

3 Robert Macfarlane, 'The Secrets of the Wood Wide Web', *The New Yorker*, 7 Aug. 2016, https://www.newyorker.com/tech/annals-of-technology/the-secrets-of-the-wood-wide-web

therefore be said to share 'an immune system across acres of woodland'.[4] Her conclusions suggest that a forest functions on the basis of cooperation and interdependence, to the extent that an individual entity is hard to discern: 'There are no individuals. There aren't even separate species. Everything in the forest is the forest. Competition is not separable from endless flavours of cooperation.'[5] Westerford's empirically established ideas are counterposed by an apparently transcendental form of tree communication, one that evokes the Romantic conception of nature as a site of the sublime, in which, as Thomas Weiskel writes, 'nature appears as the medium through which the mind discovers and presents itself, in eddies of separation and reunion'.[6] The ecosystems Powers depicts are therefore ones in which two tracks of networked communication operate simultaneously: one, based on the chemical signals that have been found to flow among trees and between them and other plant forms, and the other an affective, emotive interplay that occurs beyond the realm of the physical. This form of communication, which veers into the transcendent and epiphanic, prompts characters to turn towards environmentalism, either in the form of making small gestures of conservation or of taking radical and sometimes violent action against deforestation and related industries.

TREE TEXTS AND KINSHIP COMMUNICATION

All nine central characters of Powers's text have the trajectories of their lives altered by their encounters with the transcendent media of what Garrett Stewart calls the 'quasi-personified tree forms' that populate the text.[7] The stories of these characters' lives then go on to overlap and intersect as they attempt to grapple with the vitality of the tree-life they have gained an inkling of, and the importance of preserving it. Throughout their interconnected tales, trees, as Stewart states, come to

4 Richard Powers, *The Overstory* (New York: W.W. Norton & Company, 2018), pp. 125–26.

5 Ibid., p. 142, emphasis in original.

6 Thomas Weiskel, *The Romantic Sublime* (Baltimore: John Hopkins University Press, 2019), p. 6.

7 Garrett Stewart, 'Organic reformations in Richard Powers's *The Overstory*', *Daedalus* **150** (1) (2021): 160–77, at 161–62.

occupy 'choral-speaking parts' within the text: – 'animated, communicative, bearing witness' in ways that are evident not only in the passage of the narrative, but in the language Powers employs: rich with allusive terminology and environmental metaphors, it is what Stewart calls a 'hypertuned vocabulary', full of 'forest lingo' and 'puns, echoes, and harmonic overtones'.[8] This is mirrored on a structural level by the section titles, with their taxonomy of the growth cycle of a tree. The novel's self-consciously organic form foregrounds the analogical relationship between text and tree.

Just as trees serve as a formal model for the novel, as well as providing inflection points in the characters' lives, they also function on a diegetic level as books that can be read. However, the degree to which these organic lifeforms are in fact legible is persistently put into question; on the one hand, they are characterised as repositories of biochemical information, revealing ancient histories that far outstrip human time and, on the other, they are inscrutable, opaque beings capable of a form of communication that can only be glimpsed by the human characters. This duality between legibility and opacity is one that resonates profoundly with Romantic conceptions of the sublimity of nature, and echoes a broader duality central to the Anthropocene: the technoscientific rationalisation of nature, in which environmental value is comprehensively knowable and extractable, and the ecological imperative toward respecting the boundaries of nature. The tree, or in this case an object produced from it – a wooden desk in a prison cell – is a 'text' that is 'unreadable':

> If he could read, if he could translate ... If he were only a slightly different creature, then he might learn all about how the sun shone and the rain fell and which way the wind blew against this trunk for how hard and long. He might decode the vast projects that the soil organised ...[9]

Trees are technologies for encoding their own history, and that of the web of life in which they are woven, but the code in which they write is not entirely legible to humans. The conditional 'if' suggests, nonetheless, that a 'slightly different creature' could read such a script, and that such a form of (posthuman) ontology may emerge through such an embrace of the more-than-human.

8 Ibid.

9 Powers, *The Overstory*, p. 155.

The manner in which the novel's interspecies communication breaches this boundary of legibility is through recourse to the uncanny, which Powers makes apparent through the epiphanic moment of interconnection experienced by Olivia Vandergriff after a near-death experience:

> The car is filled with beings of light. They're everywhere, unbearable beauty, the way they were the night her heart stopped. They pass into and through her body … They're part of her, kin in some way that isn't yet clear. Emissaries of creation – things she has seen and known in this world …[10]

A connection with nature is here figured as a form of sublime transcendence – an embrace of the materiality of nature through an encounter with immaterial 'beings of light'. These beings, which express to her the vital importance of protecting the biosphere, are manifestations of the processes of creation and kinship within that biosphere; they reveal to her an extended notion of family that includes vegetal life, while also suggesting that they are 'emissaries' of a different mode of materialising memory, one that is underlined by the deep time of nature. The epiphanic experience provided by a profound attention to nature is here paradoxically expressed in terms of immateriality and the encoding of information within that immaterial vector, one situated within a transcendent realm.

Communication is therefore established as the basis of kinship, as trees 'pour out messages in media of their own invention' and humans, and other lifeforms, are established as the object of such media.[11] The description of trees as producers of media is crucial here, as it shows how Powers establishes a form of media ecology as a predicate for interspecies communication. In the text, the analogy of nature as media structures the understanding of communication, in a way that transforms organic lifeforms into nodes that continually, and automatically, transmit information. This information may come in the form of biochemical signals or even the excretion of organic matter, itself expressive of some form of biological process, or it may operate on a transcendental plane. Thus, natural processes, human activity and interspecies connection all become subsumed within the paradigm of informatic communication. The depiction of these forms of communication as redolent of

10 Ibid., p. 163.
11 Ibid., p. 355.

technological forms of communication is evident in the lexicon Powers uses to describe them: 'media', 'frequencies', 'networks', 'cabling' – all of which point towards a construction of communication as essentially technological in nature, while the networked form is given primacy not because of its organic basis but because it resembles or models digital communication.

IMAGINING ALTERNATIVE ONTOLOGIES

At the outset of the opening section of the novel, 'Roots', Powers sketches out a scene that suggests that an analogy between organic and technological forms of communication will be operative within the text:

> *First there was nothing. Then there was everything. Then, in a park above a western city after dusk, the air is raining messages. A woman sits on the ground, leaning against a pine … Her ears tune down to the lowest frequencies. The tree is saying things, in words before words.*[12]

The pine tree anchors the media ecology in which it sits, and is the central agent within that ecology. Powers designates this agency through the active verbs that reveal the tree-agent in action; it 'presses' against the woman's back, while its needles 'scent' the air and a force 'hums' within its wood. The communication emanating from the tree is at the resonance of this 'hum', it is a radio signal broadcast at the 'lowest frequencies'. The tree speaks in 'words before words' – both language that transcends human modes of communication and language that precedes those modes, since it exists on a timescale that far exceeds that of the human. The evocation of the biblical creation story, '*First there was nothing. Then there was everything*', gestures towards the teleological character of Powers's ontology: trees, or nature as a whole, as organic manifestations of some form of transcendent ethics, from which humans are alienated, at least temporarily. This alienation can be countered by recognising and engaging in the media ecology generated by trees, a process of reception and attention that can reveal the ethical imperative of radical environmentalism.

The tree thus becomes both a vector of communication and a representational interface, one that intimates and gestures in language

12 Ibid., p. 3, emphasis in original.

beyond humanity's scope of comprehension. Nicholas Hoel, an artist who becomes a militant environmentalist as the book progresses, looks up into the chestnut tree that stands sentinel next to his home and sees: 'All its profligate twigs click in the breeze as if this moment ... so insignificant, so transitory, will be written into its rings and prayed over by branches that wave their semaphores'.[13] The tree is thus a text, one with specifically transcendental resonances; it allows for access to a form of collectivity engendered by communicative kinship, but only for those willing to tune in to its frequencies. Kinship across species boundaries therefore, as Powers states, 'will work like an unfolding book'.[14]

Elsewhere in the novel, most notably in the italicised passages preceding each section, communications from trees are materially embodied in their 'needles, trunks, and roots'. These signals of a tree consciousness are 'hundreds of millions of years older' than the 'crude senses' of humanity, but they can nevertheless be legible. They speak of the necessity of 'long answers' and 'long time' – an elaboration of the necessity of embracing the cyclical, deep timescales of nature, which far exceed those of the human. In response to such signals, a watching human thinks of the possibility of engendering a new form of relation to the object world: 'I wouldn't need to be so different for sun to seem to be about sun, for green to be about green'. For the disjunction between figure and ground to collapse, a new ontology must emerge, one tantalisingly within reach. This phenomenological understanding of the lifeforms of nature would transcend the need for 'killing clarity' and allow the 'rings of life and water and stone' to be sufficient, both ontologically and within the circle of interspecies communication, as 'all the words I need'.[15] Nonetheless, although all of the central characters experience some form of communion with trees, Powers makes it clear that, despite trees 'making significance, making meaning as easily as they make sugar and wood', 'humans hear nothing'.[16] Through his intimation of the existence of tree consciousness, one that is not bounded by notions of individuality or even materiality, Powers thus attempts to counter both the obliviousness of humanity to the possibilities of

13 Ibid., p. 23.
14 Ibid., p. 132.
15 Ibid., pp. 355–356.
16 Ibid., p. 168.

dialogic exchange with nature and the rapaciousness of the 'killing clarity' that seeks to control the natural world and extract value from it. Apart from the handful of characters that make up the novel's collective protagonist, humanity is depicted as essentially ignorant of the possibilities of agency or consciousness in vegetal life. By modelling the possibilities of mutuality and interspecies exchange, Powers questions how such ignorance could be countered, if not by the realisation that trees have an awareness and agency of their own.

In depicting his form of interspecies communication, Powers does anthropomorphise trees to some degree, by making them communicate their intentionality in a linguistic form legible to humans. Birgit Spengler points out that this is evidence of Powers's attempt to 'have it both ways': both to 'suspend readers' epistemic disbelief in talking trees' and harness 'the ideas – or words – "voiced" by trees [in] the service of bringing into being a new ontology'.[17] Nevertheless, Powers does manage to foreground a form of relational ontology through his focus on interspecies dialogue. On both a formal and a thematic level, Powers imbues the trees of the novel with characteristics of fluidity, multiplicity and interdependence, highlighting what Spengler calls their 'situated and communal character', with individual trees standing in for a 'story of multiple dependencies, entanglements, and relationality'. Notions of 'human exceptionalism' and 'bounded individualism' are problematised by such a rhizomatic notion of being, which compels a recognition both within the diegesis of the text and on behalf of the reader of the ethical responsibilities of entanglement.[18] Spengler goes on to explain how the novel compels the recognition of alternative ontological forms: 'structure and plot recreate the entangled life forms of trees in order to promote a more-than-human frame of orientation'.[19] The result of such a modelling is that the novel 'can facilitate a new appreciation of plant life and challenge ideas of human exceptionalism even though it destabilizes and counterweighs rather than fully replaces anthropocentric perspectives'.[20]

17 Birgit Spengler, 'Arboreal encounters in Richard Powers's *The Overstory*', in Birgit Spengler and Babette B. Tischleder (eds), *An Eclectic Bestiary: Encounters in a More-than-Human World* (Bielefeld: Transcript, 2019), pp. 65–90, at p. 72.

18 Ibid., pp. 65–72.

19 Ibid., p. 75.

20 Ibid., p. 80.

Not only does this form of ontological multiplicity express a new form of collective intentionality, it also subverts hierarchies that insist on human mastery and control over nature: '*People aren't the apex species they think they are*. Other creatures – bigger, smaller, faster, older, younger, more powerful – call the shots ... without them, *nothing*.'[21] Entanglement implies interdependence, which in turn reveals the necessity of overturning narratives of human exceptionalism. What Powers is attempting here is something akin to what Donna Haraway calls 'webbed, braided, and tentacular living and dying in sympoietic multispecies string figures': a narrative that subverts the 'top heavy and bureaucracy prone' apparatus of the Anthropocene, in favour of the multiplicity of Haraway's 'Chthulucene'.[22] The Chthulucene is 'made up of ongoing multispecies stories and practices of becoming-with in times that remain at stake, in precarious times', in which 'human beings are not the only important actors'. Instead of human exceptionalism, Haraway argues for the reversal of the hegemonic species order: 'human beings are with and of the earth, and the other biotic and abiotic powers of this earth are the main story'.[23]

One way in which Powers creates such a string figure narrative is through his use of timescales that exceed the human. He overlays the diegetic time of the narrative – itself split into an overlapping network of stories – with the deep time of plant life:

> Long ago, the climate changed, and an aspen's seeds can no longer thrive here. But they propagate by root; they spread. There are aspen colonies up north where the ice sheets were, older than the sheets themselves. The motionless trees are *migrating* – immortal stands of aspen retreating before the latest two-mile-thick glaciers, then following them back north again.[24]

Trees not only exist on a timescale that far exceeds the human, they create their own spatial reality in a manner, and at a speed, that is beyond human comprehension. They survive through a form of slow migration and adaptation that takes centuries and largely occurs in the soil; a form

21 Powers, *The Overstory*, p. 285, emphasis in original.

22 Donna J. Haraway, 'Staying with the trouble: Anthropocene, Capitalocene, Chthulucene', in Jason W. Moore (ed.), *Anthropocene or Capitalocene?* (Oakland: PM Press, 2016), pp. 34–76, at pp. 52–53.

23 Ibid., p. 59.

24 Powers, *The Overstory*, p. 133.

of spatiality and temporality that is incommensurable with the systems of production established by humans, that is ultimately sublime in the sense of being dynamically incomprehensible on a human scale, or incomputable on a systematic one. The entanglements within the text then, as Spengler notes, 'take place in space and time; they can reorient concepts of time through the time span in which they take place, but they also interfere with conceptualisations of space through the distances they breach and connections they establish across distances'.[25] Thus, the tempo-spatial reality of trees intersects and overlaps with that of humans, establishing an interweaving within the wider web of life.

Through this dramatisation of the interconnectedness of lifeforms, Powers celebrates a form of collective being based on flux, fluidity and blurred boundaries; the essential imbrication of the human with the other and therefore the impossibility of a truly bounded individuality. What lies behind this impossibility is what Rosi Braidotti calls 'the transversality of relations', which, in Braidotti's understanding, would allow for the emergence of 'a postanthropocentric and posthuman subject that traces transversal connections among material and symbolic, concrete and discursive lines of relation or forces.'[26] In Powers's text this emphasis on transversality aims to stress the ethical imperative of environmentalism for the reader. To establish this ultimate interconnection, however, Powers turns to technology as the final apotheosis of the dialogic exchange between human and nonhuman, and the means by which a 'postanthropocentric and posthuman subject' could emerge.

A TECHNOLOGICAL DETERMINATION

Powers's evocation of technological tropes in the service of establishing his alternative tree-based ontology, and of expressing the way in which cross-species communication both functions and doesn't, reveals some of the ways in which the ecological has become saturated with the technological. Indeed, Powers shows how certain technologically inflected ideas have become hegemonic and inescapable – communication is necessarily a media relation, enacted through and within technological systems; cognition and ecology have become comprehensible primarily

25 Spengler, 'Arboreal encounters', p. 83.

26 Rosi Braidotti, *The Posthuman* (Cambridge: Polity, 2013), p. 94.

through analogy with technological systems, and transcendence is ultimately a manifestation of technological immateriality. As Westerford writes in her book defending the complexity of trees:

> Something marvellous is happening underground, something we're just learning how to see. Mats of mycorrhizal cabling link trees into gigantic, smart communities spread across hundreds of acres. Together, they form vast trading networks of goods, services, and information ...[27]

Trees are imagined here as nodes within a distributed network that is organic, but which models the technological in its manner of processing, storing and communicating meaning to fellow lifeforms and even facilitating a form of organic commerce. For Powers, technology seems to act as the predicate for ontological recognition, which comes to be defined by its adherence to technological models. In this sense, Powers's text can be said to be emblematic of the Anthropocene tendency to refer to technological media systems when conceptualising nature, as both a determinant of the utility of nature and a medium through which nature can be understood. *The Overstory* thus functions as the reverse of what Stewart calls a 'paranoia novel', in which the 'unmastered mysteries of a System in which human energies have found themselves embedded' are expressed. Powers turns this trope inside out so as to 'limn' the 'intricate workings of a vulnerable botanic superstructure and its tongueless signage'.[28] Technology in *The Overstory* offers a glimpse of a techno-organic counterpoint to such a system, one which is similarly manifested as an emergent property of networked systems of vast, overwhelming complexity.

The conflation of the technological and the organic is most clearly laid out in the sections of *The Overstory* focusing on Neelay Mehta, the game designer, who lost the use of his legs at a young age after falling from a tree. Identified as 'the boy who'll help change humans into other creatures', Mehta is ultimately given the responsibility of reconciling the technological and the natural through his games, which are themselves

27 Powers, *The Overstory*, p. 218.

28 Stewart references Don DeLillo and Thomas Pynchon as writers whose work exemplifies the 'paranoia novel', a form that explores how narratives of paranoia, or conspiracy, might be the means by which an individual handles the uncertainty evoked by an opaque systematic reality. Stewart, 'Organic reformations', pp. 164–65.

means of representing and enacting a new understanding of the natural world.[29] As a young boy, he finds in the early coding technology he shares with his engineer father a way of transforming 'his innermost hopes and dreams into active processes'.[30] Particularly after his accident, writing code becomes for Mehta a way of embodying a form of direct creative agency that he is unable to harness otherwise. Both his inspiration for coding and the form which his homemade software takes is couched in terms of organic growth; the biosphere provides both the metaphorical lexicon and the conceptual spark for Mehta's games. The 'worlds' he creates are structured in terms of the programming technique of 'branching', a mechanism that allows Mehta to 'reincarnate himself' 'as people of all races, genders, colours, and creeds'.[31] Powers thus expresses both the liberatory potential of digital technology and its capacity for destabilising the autonomy of the user, a duality that is mirrored in the complex dialectic of materiality and immateriality that exists within the digital sphere. We can also see the ontological fungibility of Mehta's game as a parallel to the critical faults of the Anthropocene concept, which essentialises and homogenises humanity, while neglecting to address the role of economic, race and gender-based systems of oppression and coloniality in environmental degradation.[32]

In *The Overstory*, these conflicts are deepened by Powers's persistent attempt to subsume the digital within the natural or organic: Mehta's programming is described as:

> ... trees that spread like fireworks and trees that rise like cones. Trees that shoot without a ripple, three hundred feet straight skyward. Broad, pyramidal, rounded, columnar, conical, crooked: the only thing they do in common is branch, like Vishnu waving his many arms.[33]

As the reference to Vishnu shows, nature is imbued with the spirit of the sacred, in a return to a mode of environmentalism that took its inspiration from religious discourse and saw the natural world as the site of the numinous. Vishnu is the figure chosen for this comparison

29 Powers, *The Overstory*, p. 92.

30 Ibid., p. 94.

31 Ibid., p. 95.

32 See Jason W. Moore, *Anthropocene or Capitalocene?* (Oakland: PM Press, 2016) for further discussions of the Anthropocene concept's faults and alternatives to it.

33 Powers, *The Overstory*, p. 95.

both because of his status as supreme creative deity within Hinduism and because, like a tree, his multi-limbed form suggests an ontological multiplicity. However, Mehta's encounter is one that occurs only in the realm of the digital interface, and is enacted by the complex duality of freedom and control available to the user there, which offers users a putative form of sovereign freedom, while in fact controlling and monitoring their actions in often opaque ways. The transcendental scope of such an interface is thus always pre-determined, as Mehta the programmer knows only too well.

Nonetheless, what Mehta discovers in code is a form of enlightenment, pointing towards a posthuman future ('the boy who'll help change humans into other creatures') that can be accessed through the apparent freedom provided by digital technology.[34] By mapping Mehta's software onto organic form, which provides an underlying metaphorical language for it, Powers imbues code with the autonomy and liveliness of plants – in effect, he makes the algorithms Mehta constructs into self-replicating automata through the analogy of plant life, which Powers describes as 'the most perfect piece of self-writing code'.[35] Mehta imagines programming as a 'temple-eating fig' from a photograph his father shows him, a fig that will 'keep on growing faster with each new chunk of reusable code. It will keep on spreading, searching the cracks, probing all the possible means of escape, looking for new buildings to swallow'. Although it grows 'under Neelay's hands', it is not quite under his control, but has a life of its own.[36] Mehta is then merely the vector through which this autonomous artificial life manifests, or rather, he is the only person who can perceive the possibilities opened by the apparently invisible processes of computing, which are 'reticent' in the sense of withdrawn from human comprehension:

> Something inside these tiny, mutable components is waiting to get out ... there's something that these reticent things might be made to do, something humans haven't even imagined yet. And Neelay is on the verge of finding and naming them …[37]

34 Ibid., p. 92.
35 Ibid., p. 103.
36 Ibid., p. 95.
37 Ibid., p. 96.

To counter the reticence of these nonhuman beings and activate their autonomous potential makes Mehta 'feel like a God'.[38] The prothesis of these digital technologies expands the scope of human capacities in ways that model a form of divine omnipotence. Transcendence is thus given material form as a digital enterprise, in which in the user expands their perspective and comprehension to a god-like extent by tapping into the epistemological capacities of data-gathering algorithms.

ALGORITHMIC TRANSCENDENCE

In the sections of the novel focusing on Mehta, Powers evokes a notion of digital comprehension that resonates with Wendy Hui Kyong Chun's assessment of the way in which the 'invisibility, ubiquity, and alleged power of new media' lend themselves to an analogy with 'the incomprehensibility of the divine'. Since, as Chun continues, 'it seems impossible to know the extent, content, and effects of new media', software has gained pre-eminence as the reference point for all new media objects, as a 'visibly invisible or invisibly visible essence'. To know software then, has 'become a form of enlightenment: a Kantian release from self-incurred tutelage'.[39] Chun writes that software has become a 'metaphor for the mind, for culture, for ideology, for biology, and for the economy', and as such has provided a language of conceptualisation for fields far removed from that of digital technology – this is certainly evident in Powers's reference to the questions of ecology in terms of technology, and his reliance on a lexicon sourced from digitality to express the wonder of the biosphere.[40]

In Powers's text, the complex interplay of visibility and invisibility, knowing and not knowing, that is enacted through the interface of software is applied to the obscurity of the natural world, which becomes another form of technological medium, one that can be mapped computationally. Particularly in the latter stages of the novel, when he plans a game that will create its own totalising landscape – a map that can encompass the territory – populated by the myriad lifeforms of the natural

38 Ibid.

39 Wendy Hui Kyong Chun, *Programmed Visions: Software and Memory* (Cambridge: The MIT Press, 2011), p. 1.

40 Ibid., p. 2.

world, Mehta becomes the embodiment of what Chun calls the 'seemingly sovereign individual, the subject driven to know, driven to map, to zoom in and out, to manipulate and to act'.[41] That sovereignty is, however, not total, but shared with the autonomous algorithms that populate Mehta's system, algorithms that make users themselves the object of their knowledge gathering enterprises. The contingency represented by this systematic autonomy means that, as Chun argues, 'computers execute in unforeseen ways, the future opens to the unexpected' and, therefore, 'any programmed vision will be always be inadequate'.[42]

Just as his software is conceived of as an organic creation, Mehta finds inspiration for his games in nature, specifically in an encounter with a sempervirens tree, a coast redwood that is 'beyond comprehension' in size; 'an immortal, collective ecosystem'. The incomprehensibility of the tree's magnitude is framed in terms of a panentheistic collective deity – 'All the world's trunks come from the same root and are rushing outward, down the spreading branches of the one tree' – and of the totalising interface of software: 'think of the code that made this gigantic thing ... How many programs is it running?'[43] Paradoxically, despite his encounter with incomprehensible tree-life, Mehta calls one iteration of his interplanetary adventure *Mastery*, designating the manner in which it seeks to tear down the veil of incomprehension and reaffirm the sovereignty of the user.[44] It also establishes the way in which the game, and the notion of 'play' within the digital sphere in general, becomes a vehicle for alleviating the contingency of what Mehta's staff call 'RL' or 'Real Life'.[45] Within the game,

> the player will start in an uninhabited corner of a freshly assembled new Earth. He'll be able to dig mines, cut down trees, plough fields, construct houses, build churches, and markets and schools – anything his heart desires and his legs can reach … But there's a kicker: other people, real people, on the other end of modems, will each be furthering their own culture in other parts of this virgin world. And every one of those other, actual people will want the land beneath any other player's empire.[46]

41 Ibid., p. 8.
42 Ibid., p. 9.
43 Powers, *The Overstory*, p. 197.
44 Ibid., p. 198.
45 Ibid., p. 226.
46 Ibid., p. 198.

Mehta's game thus figures the complexities of social systems but makes them objects capable of colonial mastery, in a mappable terrain in which characters can achieve 'enlightenment', as one 'overpowered victory strategy' is named, and in which they must engage in competition with other players.[47] The visual representation then becomes less important than the scope for sovereign agency offered to the users, who are able to imbue their actions with global consequences through the gaming interface; within the game, 'the visible is only a placeholder for real desire'.[48] Here, the totalising interface of the game, itself a mask for the desire of its users, can be seen as a manifestation of what Chun calls the 'wish for a simpler map of power', for 'power as mappable', which underpins the notion of 'code as automatically executable' and 'interfaces more generally'. Chun argues that 'this wish is central to computers as machines that enable users/programmers to navigate neoliberal complexity'.[49] The desire for such a means of mapping uncertainty is made evident in the text by the exponential growth of Mehta's game; it becomes a global phenomenon in line with the growth of the online gaming industry, as '*Play* becomes the engine of human growth'.[50]

What Mehta comes to find unfulfilling about this game is its inability to truly map the complexity of the natural world, and to therefore offer some means of actual material impact – he questions why users 'give up an endlessly rich place to live in a cartoon map?'[51] Instead, he proposes a game that will allow them to 'learn what the world will bear, how life really works, what it wants from a player in exchange for continuing to play', a game in which characters must play with the goal of 'growing *the world*, instead of yourself'.[52] While *Mastery* offered users the ability to map and thus control the contingency of the world, to establish themselves as sovereign and visualise the unknown, Mehta seeks a game that could foreground the imperative of relating positively to the biosphere, and building an epistemology based on the organic tropes that initially motivated his programming career. He finds this

47 Ibid., pp. 225–226.
48 Ibid., p. 226.
49 Chun, *Programmed Visions*, p. 28.
50 Powers, *The Overstory*, p. 276, emphasis in original.
51 Ibid., p. 412.
52 Ibid., p. 413, emphasis in original.

in a short film sent anonymously to him entitled 'Words of Air and Light', depicting a sped-up series of photos that record the growth of a chestnut tree, a film, the text suggests, produced by Hoel. In the film, which looks like a 'hand-cranked kinetoscope', Mehta sees 'the tree's central aim, the math behind the phloem and xylem, the intermeshed and seething geometries, and that thin layer of living cambium swelling outward'. Provided with this technological glimpse of tree-time, Mehta views the growth of the chestnut in terms of code – a 'wildly branching code pruned back by failure' – one that provides the viewer with an epiphanic encounter with a transcendental other, existing beyond and within human timeframes and ontologies.[53]

Mehta's response to this film is to create a new computer programme, one that fulfils his aim of establishing a more reciprocal relation to the natural world. It is described as a 'growing organism', a 'venture into cooperation', in which 'creatures swallow up whole continents of data' based on pre-existing 'digital germplasm'. The aim is to 'find out how big life is, how connected, and what it would take for people to unsuicide. The Earth has become again the deepest, finest game, and the learners just its latest players.'[54] The 'learners' are autonomous algorithms within the programme whose task it is to collect data and knowledge on ecological matters and the well-being of the biosphere, and then collectively absorb that information as a means of establishing some interspecies relation between vegetal life and humans, a relation mediated by technology. In fact, these autonomous programmes exist in the space between the organic and the technological that Powers has mapped out throughout the book: they 'come to think like rivers and forests and mountains' and will 'learn to translate between any human language and the language of green things'.[55] They represent the apotheosis of Powers's project of finding some analogical relation between the organic and the technological, as categories of nonhuman being, and applying that analogical connection as a means of furthering the ontology of interspecies mutuality he is attempting to celebrate. The 'learners' are counterposed to another message of environmentalism,

53 Ibid., p. 435.
54 Ibid., p. 482.
55 Ibid., p. 496.

this one made by Hoel out of dead trees and apparently legible only from high above:

> The transported pieces of downed wood snake through the standing trees. Satellites high up above this work already take pictures from orbit. The shapes turn into letters complete with tendril flourishes, and the letters spell out a gigantic word legible from space:
>
> STILL

Trees thus become means of communication again, expressing a message of persistence and attention – the imperative to be 'still' as well as the imperative to remain – but for an audience that is mainly digital: 'the learners will puzzle over the message that springs up there ... But in the blink of a human eye, the learners will grow connections.'[56] These learners represent the ultimate synchronicity of digital and organic life and, with their drive to collect, to read, to see and to understand, they are examples of what Stewart calls the 'epistemic urge' replacing the 'ludic'; 'the empty eschatology of total mastery over a fictive universe becomes instead the eponymous overstory of documentary narrative, open-eyed and investigative'.[57] Operating beyond the scope of human comprehension, at speeds and timescales unimaginable to the human perceiver, they are the ultimate posthuman entities proposed by Powers: mapping the geometry of the biosphere, quantifying and computing the vegetal world, these algorithms represent the subsumption of the Romantic, natural sublime – the unknowable mystery of nature, in which the self becomes boundless – within the technological sublime – technology as the figure for our failure to represent the systematic complexity of the web of life and the place of the individual within it.

CONCLUSION: UNTANGLING NATURE AND TECHNOLOGY IN THE ANTHROPOCENE

What are the implications of this recourse to the technological as a means of incorporating the nonhuman – particularly in a text that is explicitly opposed to the quantifying, disembodied gaze of capital on

56 Ibid., p. 502.

57 Stewart, 'Organic reformations', p. 170.

the natural world? Is it necessary for the model of collectivity proposed at the climax of the text to be one derived from apparently autonomous digital technologies, or is it possible that this in fact reveals how digital technology derives its model of networked existence from some other precedent – ecology itself? Powers, in his attempt to reconcile the human with the lifeforms of the biosphere, introduces technologically instantiated beings that to some degree recapitulate the discursive construction of nature as object of knowledge (rather than being imbued with agency as earlier in the novel), as entirely computationally legible, and as a vector for patterns of information that can be removed from their source – the tree as text – and utilised as raw data. Of course, Mehta aims not to use this technology on behalf of capital, but as a positive ecological force. Nonetheless, it is necessary to question whether Powers does not replicate some elements of the discursive construction of nature-as-resource that he is otherwise attempting to upend through this final fusing of the technological and the organic.

By attempting to foster a form of collective technologically facilitated consciousness, Powers inescapably evokes the global systems of both assemblage and oppression that operate through digital technologies, forcing the reader to question whether such technologies can be turned to ecological purposes as Powers imagines and leaving a pervasive sense of indeterminacy and ambivalence lingering over the entire environmental project of the text. What then of the Anthropocene and the conception of nature that has underpinned it? In this reading of Powers, we can see that he applies a vitalist approach to materiality, that he, in Braidotti's terms, 'displace[s] the boundary between the portion of life – both organic and discursive – that has traditionally been reserved for *anthropos*, that is to say *bios*, and the wider scope of animal and nonhuman life'. He does so by underscoring the 'generative vitality' of the natural world and establishing a form of 'transversal force' that 'cuts across and reconnects previously segregated species, categories and domains' – in Powers this occurs through a tree-based ontology, one with a profoundly nonhuman set of spatial and temporal imperatives.[58] Within *The Overstory*, there is an attempt to deconstruct what Braidotti

58 Braidotti, *The Posthuman*, p. 60; for an in-depth investigation into the possibilities of a tree ontology, see Sarah Abbott, 'Approaching nonhuman ontologies: Trees, communication, and qualitative inquiry', *Qualitative Inquiry* **27** (8–9) (2021), https://doi.org/10.1177/1077800421994954

calls 'species supremacy' and inflict a blow to 'any lingering notion of human nature, *anthropos* and *bios*, as categorically distinct from the life of animals and nonhumans'. In place of such supremacy, what comes to the fore is 'a nature-culture continuum in the very embodied structure of the extended self'.[59] For Powers then, as for Braidotti, transversality represents an 'ethics and ... a method to account for forms of alternative, posthuman subjectivity. An ethics based on the primacy of the relation, of interdependence.'[60]

However, lingering within such notions of interdependence, as the 'machine in the ghost', is the spectre of a technological rapprochement, one that can fulfil the promise of transversality through recourse to a form of technological sublimity – a materially embodied encounter with transcendent symbiosis. Powers establishes an analogical relation between the technological and organic, a relation that will eventually manifest in the attempted algorithmic reconciliation between the human and the nonhuman other in nature. Ultimately, through this manoeuvre, Powers reproduces an idea that seems to underpin the Anthropocene more generally: that nature as a concept is essentially computable, quantifiable, and ultimately knowable. The sublimity of nature is therefore subsumed into the broader sublimity of technology, as nature becomes both, as Thomas H. Ford notes, 'comprehensively textualized' and comprehensively legible.[61] This does not occur on a human scale, but on the scale of a technology that, in attempting to bridge the interspecies gap, to embody transversality, only emphasises the impasse of otherness. What this finally reveals is the way in which nature in the Anthropocene, even when representing an alternative collective ontology, is determined by technological mediation, to the extent that it cannot be untangled from the technological. This determination becomes apparent in *The Overstory* in the way in which the incomprehensibility of the natural world becomes resolved through recourse to the opaque and emergent properties of digital technologies, technologies that, in turn, become vectors of transcendence.

59 Braidotti, *The Posthuman*, p. 65.

60 Ibid., p. 95.

61 Thomas H. Ford, 'The Romanthropocene', *Literature Compass* **15** (5) (2018): 1–13, at p. 11.

Thomas Storey is an early career researcher who has recently completed a Ph.D. in English Research from King's College London. His thesis was entitled 'The Anthropocene Sublime: Immanence and Entanglement from Romanticism to Digitality' and was focused on the contemporary relevance of the concept of the sublime in an era of ecological crisis and digital mediation, with particular attention paid to the parallels between Romantic and digital aesthetics and ideas. His current research is focused on issues of representation within the environmental humanities, Anthropocene conceptions of nature, ecopoetics, cybernetics, and the ecological within digital culture. He is based in Copenhagen.

Email: trs.storey@gmail.com

Elizabeth Oriel

Jacaranda Trees, Place and Affect: An Analysis of Australian Newspaper Articles, 1900–2023

PLANT PERSPECTIVES 3/1 - 2026: 34–60
DOI: 10.3197/WHPPP.63845494909744
OPEN ACCESS CC BY 4.0 © THE AUTHOR

ABSTRACT

The jacaranda tree, native to South and Central America and the West Indies, yet planted ornamentally on all continents (except Antarctica), inspires colonial imaginaries and outpourings of poetic verse, exerting influence as a placemaker. One of the almost fifty jacaranda species, *Jacaranda mimosifolia*, commonly called 'blue jacaranda', is native to the Andes mountains of Bolivia and Argentina, though planted in Australia starting in 1865. With purple-ish mauve, trumpet-shaped blossoms that can last weeks to two months in springtime, jacaranda trees enact forms of vegetal (tree) influence on humans while also being objectified in colonial efforts to beautify and civilise; these complex relations exist in fields of place-making and unmaking processes. This paper tracks the discourses related to this jacaranda-blooming cyclical event in Australian newspapers across 123 years (1900–2023), exploring complex multi-directional relationships that build place across vegetal affective fields and remake place in settler colonial processes. Contributing to environmental humanities' discussions of place, power, affect and vegetal influence in Critical Plant Studies, this paper uncovers how placemaking is a multispecies and affective process, and how the vegetal is a powerful force that is also objectified in settler discourses and processes of unmaking. Journalism has prominent placemaking roles as well, transforming spaces discursively into places of meaning with social and cultural constructions; placemaking occurs both in human-plant relations and through the journalistic medium.

KEYWORDS

Affect theory, critical plant studies, news media, placemaking, settler colonialism

A tree stands in its own place. Its life is sedentary. It is a life in one place, a life without anxiety. Not only is a tree in its place; it actively contributes to its place, even though to move from its own place is to risk the death of the organism. 'With its adjacent surroundings', writes Hans Jonas, 'the plant forms one permanent context into which it is fully integrated, as the animal can never be in its environment'.[1]

INTRODUCTION

As I begin writing this paper, I visit a botanical garden in Denmark where I am living as a postdoctoral researcher. I sit down next to a *Jacaranda mimosifolia* tree in a section of the greenhouse with plants from the Americas. So many tiny, delicate, pointed leaves join together, almost fern-like, into one larger whole with

1 E, Casey, *Getting Back into Place: Toward a Renewed Understanding of Place-World* (Indianapolis: Indiana University Press, 1993), p. xii.

fractal patterns; the bark is smooth and grey; branches hang in awkward arm-like poses. The feathery leaves remind me of fans, feathers, arms, gusts of wind and fragmented light. Experiencing these trees in person is important to me – to have bodily, in-person contact. And yet, the setting, a botanic garden, which is so well attended and loved by the visitors I see around me, is a space of globalised, uprooted beings, collected, commodified, researched, gene edited and more. Hardly akin to the mountainous ecosystems of the Andes where this species of jacaranda originates. My sense is that this tree is fairly healthy but not thriving.

The jacaranda tree, native to South and Central America and the West Indies, yet planted ornamentally on all continents except Antarctica, inspires colonial imaginaries and outpourings of poetic verse, exerting influence as a placemaker. One of the almost fifty species, *Jacaranda mimosifolia*, commonly called 'blue jacaranda', is native to the Andes mountains of Bolivia and Argentina, though planted in Australia starting in 1865. With purple-ish mauve, trumpet-shaped blossoms that can last several weeks to two months in springtime, they enact forms of vegetal (tree) influence on humans while also being objectified in colonial efforts to beautify and civilise; these complex relations exist in fields of place-making and unmaking processes. This paper tracks the discourses related to this jacaranda-blooming cyclical event in Australian newspapers across 123 years (1900–2023), exploring complex, multi-directional relationships that build place across vegetal affective fields and remake place in settler colonial processes. Contributing to environmental humanities' discussions of place, power, affect and vegetal influence in Critical Plant Studies, this paper uncovers how placemaking is a multispecies and affective process, and how the vegetal is a powerful force that is also objectified in settler discourses and processes of unmaking. Journalism has prominent placemaking roles as well, transforming spaces discursively into places[2] of meaning with social and cultural constructions[3] – placemaking occurs both in human–plant relations and through the journalistic medium.

2 While space and place are complex concepts, this paper works with space as a more abstract concept, while place refers to a position that may have cultural and/or subjective meanings (see Casey, *Getting Back into Place*). A fuller distinction is drawn later in this paper.

3 R.E. Gutsche, Jr, 'News place-making: Applying "mental mapping" to explore the journalistic interpretive community', *Visual Communication* **13** (4) (2014): 487–510;

This paper engages with a broadened concept of discourse in recognising and speaking about plants and place. Discourse in the social sciences refers to meanings enacted through language and symbolic reference; yet with the relational turn, this definition has been enlarged to include meanings and communications from and with the living world,[4] such that trees can be said to engage with discourse within human–tree relational spaces. Discourse emerges from humans and other species, reflecting the nested arrangements in socio-ecological systems; to deny discourse to the living world is to erase this existential reality,[5] silencing other species' voices and responses to what industrial worlds are imposing on them. In this ecological crisis, how we speak about the living world is central to morality[6] as well as to behaviours of recognition or denial. Being in a relationship to plants in one's own surroundings is a form of placemaking and spatial orientation. 'The backgrounding of plants is dangerous because it severs opportunities for dialogical interaction between humans and the environments in which they live.'[7] 'We not only lose the ability to empathise and to see the non-human sphere in ethical terms, but also … get a false sense of our own character and location that includes an illusory sense of autonomy.'[8] A complexity of communicative modes surrounds the jacaranda in newspapers, with themes of urban and town beautifying projects, *terra nullius*, the effect of blue and purple flowers on humans, the globalisation of plants, how

R.E. Gutsche, Jr, and K. Hess, 'Placeification: The transformation of digital news spaces into "places" of meaning', *Digital Journalism* **8** (5) (2020): 586–595.

4 D. Abram, 'Storytelling and wonder: On the rejuvenation of oral culture as an ecological imperative', in O. Urbain and D. Temple (eds), *Ethical Transformations for a Sustainable Future* (Oxon, UK: Routledge, 2017), pp. 9–17; D. Abram, T. Milstein and J. Castro-Sotomayor, 'Interbreathing ecocultural identity in the Humilocene', in T. Milstein and J. Sotomayor (eds), *Routledge Handbook of Ecocultural Identity* (Oxon, UK: Routledge, 2020), pp. 5–25.

5 T. Milstein and J. Castro-Sotomayor, 'Ecocultural identity', in T. Milstein and J. Castro-Sotomayor (eds), *Routledge Handbook of Ecocultural Identity* (Oxon, UK: Routledge, 2020).

6 E. Kohák, *The Embers and the Stars: A Philosophical Inquiry into the Moral Sense of Nature* (Chicago: University of Chicago Press, 1984).

7 M. Hall, *Plants as Persons: A Philosophical Botany* (Albany, NY: SUNY Press, 2011), p. 14.

8 V. Plumwood, *Environmental Culture: The Ecological Crisis of Reason* (Oxon, UK: Routledge, 2002), p. 9.

certain grammatical constructions support more-than-human personhood and more.

Jacaranda trees pose a formidable ecocultural presence in settler and other nations. With their springtime blooming, the trees become a phenomenon, inspiring festivals, tourism, poetry and ceremonies. The cultural ties to jacaranda tree blooming echoes *hanami* (watching blossoms) in Japan, referring to cherry tree blooms, or *sakura*. For over a thousand years, the Japanese have engaged in *hanami* in daytime and *yozakura* in nighttime; both involving picnics and family parties to enjoy the flowers. In Mexico, Alberto Roy Sanchez's *Dicen las Jacarandas* (2019) is a poetry collection inspired by the experience of jacarandas, speaking of a collective utopia that he finds in trees' whispers. *Les Enfants de Jacaranda* by Sahara Delijani (2014) summons the jacaranda in another collective sense of belonging to a more just world, as a symbol and uniting force of those torn apart by political oppression in Iran. The Russian writer Vladimir Nabokov is known to have said he could live in Los Angeles for the jacarandas alone. While jacarandas have been planted in Australia, Mexico, United States, Asia and South Africa with similar dynamics, this paper focuses on their presence in Australian newspapers and the human–vegetal relations on that continent.

As stated in the epigraph, trees are themselves placemakers in their stability and structure, in how and what they offer to their surroundings. This is evident in Nabokov's statement about trees in Los Angeles. Trees tend to structure space for many; flowers are placemakers in their reproduction that involves insects and birds. Their scent and colour in flowering that lures pollinators are affective qualities that generate the qualities and experiences of place. Angiosperms emerged 120 million years ago in the Cretaceous period, and its pollinator relationship is what allowed for bounteous diversity.[9] 'I find it mysteriously compelling that so much of what plants put forth to seduce nonhuman pollinators is seductive to humans as well: the scents of flowers, their colours and shapes, their timing. As is the case with many other manifestations of life, ancestral power is beautiful.'[10] The shimmer that flowers give off is a lure, and is transformational, carrying ancestral powers, anthropologist

9 D.B. Rose, *Shimmer: Flying Fox Exuberance in Worlds of Peril* (Edinburgh: Edinburgh University Press, 2022).

10 Ibid., p. 140.

Deborah Bird Rose writes, explaining Aboriginal perspectives and worldviews. Shimmer can be understood, perhaps, as a form of vegetal discourse, communicating to humans, insects and others. Trees not only nourish the soil and other species but provide spatial orientation. In their lifeways, plants generate emplaced habitability for insects, animals and fungi in symbiotic relationships such that the vegetal is primary to place and to diverse lifeways. These relational placemaking qualities lead to vegetal uses in colonial and settler processes of un-making and remaking place. This paper explores these polarities of settler use of trees and trees' own affective qualities in creating place, which intermingle and lose their distinctive boundaries in news articles, especially in the interwar decades.

Place is a category of thought and a constructed reality, anthropologist Arturo Escobar argues, and he writes that place, body, and environment integrate with each other.[11] In a similar vein of dissolving divisions of body and mind, Anthropologist Tim Ingold argues that embodiment is coeval with enmindment. Place tells us 'who and what we are by telling us where we are (and where we are not)'.[12] Moreover, place has been described as space with cultural meaning;[13] it builds from deep experiences, feelings of familiarity, comfort and connection.[14] Place is not static, but is vulnerable, pliable, involves action and is where moral involvement matters.[15] 'Many definitions of placemaking emphasise both the belonging aspects, such as sense of place, place-attachment, rootedness, etc., and the becoming aspects of collective reimagining/reinventing.'[16] One benefit of place as a conceptual frame is the focus on multi-directional affect between human and more-than-human lives and activities within a region, offering a systemic lens. Place can be an

11 A. Escobar, 'Culture sits in places: Reflections on globalism and subaltern strategies of localization', *Political Geography* **20** (2) (2001): 139–174.

12 Casey, *Getting Back into Place*, p. xv.

13 T. Cresswell, *In Place/Out of Place: Geography, Ideology, Transgression* (Minneapolis, MN: University of Minnesota Press, 1996).

14 D. Massey, 'A global sense of place', *Marxism Today* **38** (1991): 24–29.

15 J. Forester, *How Spaces Become Places: Place Makers Tell Their Stories* (New York: New Village Press. 2021), p. 4.

16 J. Barry and J. Agyeman, 'On belonging and becoming in the settler-colonial city: Co-produced futurities, placemaking, and urban planning in the United States', *Journal of Race, Ethnicity and the City* **1** (1–2) (2020): 22–41, p. 24.

elusive concept in its relationality, yet it highlights local autonomies and collectivities[17] and is essential to localised resilience and community cohesion.[18] Aboriginal people in Australia use the term 'country' to refer to place and interdependent relations between beings and land. 'Making peace with place' is what Bird Rose calls for among settler-descended people in Australia as part of an ethics of care.[19]

And yet, 'in these late modern times, the world has become increasingly placeless, a matter of mere sites instead of lived places, of sudden displacements instead of enduring implacements'.[20] With place being so central to humans, the relations within place and placelessness or *atopos* are akin to relations between living and dying. Placelessness is a void, a desolation that begs one to dig in and begin placemaking, and that emerges from colonial, settler and modernist degradations of situated relationality. As Edward Casey writes, philosophers across the Western spectrum describe the urge to fill up space with Being as a defense against *atopos*.[21] Settler placemaking is first an unmaking, a blindness and undervaluing of emplaced relations, and attempts to eradicate human and more-than-human historical webs of relationships – an unraveling of country. For example, Grafton, Australia, sits on the territory of the Bunjalung Nation, comprised of fifteen tribal groups.

Settler processes of un-making and re-making place

Due to their centrality in human lives, lifeways and to place, vegetal lives have been primary agents used to exert colonial and imperial projects. The entanglements of botany, plant collection and empire have been well documented.[22] Colonised land is perceived and conceived as

17 A. Escobar, *Territories of Difference: Place, Movements, Life* (Durham, NC: Duke University Press, 2020).

18 N. Hamdi, *The Placemaker's Guide to Building Community* (London: Earthscan, 2010).

19 B. Rose, 'Dialogue with place: Toward an ecological body', *Journal of Narrative Theory* **32** (3) (2002): 311–325.

20 Casey, *Getting Back into Place*, p. xv.

21 Ibid., p. xi.

22 A. Crosby and D. Worster, 'Ecological imperialism: The overseas migration of western Europeans as a biological phenomenon, in P.C. Mancall and J.H. Merrell (eds), *American Encounters: Natives and Newcomers from European Contact to Removal, 1500–1800* (New York: Routledge, 1988), pp. 55–67.

empty space to be wielded for extraction, land is *terra nullius*,[23] which allows for new plant assemblages like plantations, botanic garden collections and non-native gardens to be placed in and fill the perceived emptiness. One potent analytical lens engaging human–vegetal relations that deracinate place emerges in the Plantationocene concept, which refines that of the Anthropocene, highlighting how enclosed and extractive monocultures in plantations and attendant land use changes along with enslaved labour have re-ordered the world.[24] Viewing biodiversity loss and the climate crisis as colonial legacies reveals that the novel ecosystems in which plants are moving, dying and re-organising due to rapid system change are also part of the threats of *terra nullius*. Land becomes generic sites and not places that orient us to the world, as in Casey's distinction. Many globalised plant species, sent around the world and grown in botanic gardens, colonise the land similarly to colonisers and settlers, becoming feral, which means they move outside the gardens and proliferate – without the situated relations to place within ecological and evolutionary alliances and relationships that maintain proportionality as part of habitability. One example is the garden plant *Lantana camera* introduced in South Asia, whose proliferation is a cause of increasing human–elephant conflict.[25] Lupines in Iceland, brought in from the USA, are another example, with vast expanses of blue across the island in summer, crowding out native species.

Plants have been part of the calculus of nationalism in Australia and elsewhere, in which they become signifiers of the nation-state,[26] aiding unwittingly in forms of reification of nationhood. Nationalistic

23 R. Moran and L.A. Berbary. 'Placemaking as unmaking: Settler colonialism, gentrification, and the myth of "revitalized" urban spaces', *Leisure Sciences* **43** (6) (2021): 644–660.

24 D. Haraway, 'Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making kin', *Environmental Humanities* **6** (1) (2015): 159–165.

25 D. Jayantha and A. Dissanayaka. 'Plants are world makers: Spatial knowledge of how plants and human-plant relations mediate human-elephant relations in Sri Lanka', in R. Thakur, S. Brunn, B. Thakur and S. Thakur (eds), *Environment, Development, and Culture in South and East Asia: Local, Regional, and International Perspectives* (Berlin: Springer Nature, 2023).

26 J.C. Ryan, '"Dressed in native trees": Plants as figures of anti-national resistance in contemporary aboriginal Australian poetry', in D. Biswas, P. Eliopoulos and J. Ryan (eds), *Global Perspectives on Nationalism: Political and Literary Discourses* (Oxon, UK: Routledge, 2022), pp. 243–259.

rhetoric uses analogies of plants and the land.[27] Plants root into the soil, and this quality is drawn on to deliver nationalistic sentiment and sense of belonging, and in Australia, aided in justifying exclusions of Aboriginal inhabitants. The golden wattle tree became the national floral symbol in 1988,[28] solidifying settler identities with native plants and the Australian land base.

As a settler nation, Australian gardens and planted trees express colonial imperatives of domestication and Eurocentric ideals of beauty.[29] Settler gardens attempt to remake a place with an alien image and exert force on the land with deliberate feral species that need excessive amounts of chemicals to thrive, instead of collaborating with nature and place.[30] Planting jacarandas as street trees in Grafton has been an effort to civilise the city, and it is part of a larger movement to establish an Australian urban aesthetic.[31] Settlers arrived in a land of extensive grasses that was shaped by Aboriginal fire practices; tree planting in this setting by tapping into the globalised network of plant bodies, plant knowledge that Sydney Botanic Garden maintained was a form of settler un- and re-making of place through vegetal manipulations.[32]

Grafton is also the site of the Jacaranda festival that began in 1935, and Grafton's newspaper figures prominently in the data for this paper. Tree planting began in the 1870s with both native and non-native species, and in 1900 to the 1920s, planting switched to only one species: *Jacaranda mimosifolia*. Street tree planting was in vogue across Europe and North America in the same decades.[33] And yet, settler remaking processes intermingle with vegetal affect and influence, in twisting and overlapping branches of impact.

27 Ryan, "'Dressed in native trees'", drawing on Hogan, 2009.

28 Ryan, "'Dressed in native trees'", p. 245.

29 V. Plumwood, 'Decolonising Australian gardens: Gardening and the ethics of place', *Australian Humanities Review* **36** (2005): 1–9.

30 Ibid.

31 J. Frawley, 'Detouring to Grafton: The Sydney Botanic Gardens and the making of an Australian urban aesthetic', *Australian Humanities Review* **49** (2010): 119–39.

32 Frawley, 'Detouring to Grafton'.

33 Ibid.

Vegetal affect and affective fields

As discussed above, place is space embedded with meanings, experiences, connections. In fact, perceiving place or space as empty is a denial of the lives and stories of others. Any space is actually someone's place. Place, Van Doren and Bird Rose argue, is relationally co-constituted across beings, place, and stories in entangled modes of intra-action (citing Barad's work).[34] Co-generating place can be understood through the lens of affect theory, such that place is a continual becoming through and with affective fields. While affect is defined differently among scholars, this paper works with affect understood as the way bodies affect each other creating intensities,[35] shaping mood, atmosphere, feeling, habits, identities and lifeways. Bodies here are plant, human, water, discursive, political, among others. In terms of significance, the turn in the last decades to affectivity highlights how 'living beings become who they are through reciprocity with that which affects and moves them'.[36] Vegetal affect is apparent across history and culture in plant stories, medicines, associations and spiritual practices and realms. Plants are central to most culture's origin stories, for example, which contain affective traces across time.

This paper attends to how news articles express jacaranda trees' affective qualities that have to do with atmosphere, colour, cyclical repetitions, exotic imaginaries, dynamic influences and shimmers that leave meaning in their wake. This paper draws from Neera Singh's affective ecologies, as well as Kathleen Stewart and Marjolein Oele's affect work. To Singh, affect is 'a dynamic relationality between bodies of various kinds that enhances or diminishes the capacity of a body to affect or be affected' (this is Singh drawing on Deleuze 1988).[37] This affective

34 T. Van Dooren and D. Bird Rose, 'Storied-places in a multispecies city', *Humananimalia* **3** (2) (2012): 1–27, citing K. Barad, *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* (Durham, NC: Duke University Press, 2007).

35 K. Stewart, *Ordinary Affects* (Durham, NC: Duke University Press, 2020).

36 M. Oele, *E-Co-Affectivity: Exploring Pathos at Life's Material Interfaces* (Albany, NY: State University of New York Press, 2020), pp. 5–6.

37 N.M. Singh, 'Introduction: Affective ecologies and conservation', *Conservation and Society* **16** (1) (2018): 1–7, p. 1; Oele, *E-Co-Affectivity*; K. Stewart, *Ordinary Affects*; G. Deleuze, *Spinoza: Practical Philosophy* (San Francisco, CA: City Lights Books, 1988).

relationality is not purely active or passive but moves in various ways, as each receives the world and responds.

Applying affective worlds to human–plant relations, Oele situates affect not in Deleuze and Spinoza's approaches to embodiment but in Aristotle with an emphasis on experience and life-in-motion, among others.[38] Oele situates affect within place, in a milieu, as this paper does. For her, affect is a function of community co-emergence across beings and place, and ethics 'should be responsive to the co-affectivity at the heart of community'.[39] Vegetal affectivity is described by Oele as a middle voice, which is a verbal form; this participatory voice does not separate the actor from the action,[40] residing between the active and passive, and is present in Classical Greek and Sanskrit. The 'agency of each being is actively present in their doing'.[41] Oele emphasises that the middle voice shifts 'away from subjectivity and towards locality'.[42] This voice moves away from centralised selves as plants are not organised in centralised ways like animals are, towards states of acting and being acted upon. Plants contribute to structuring place and place structures animal lives, and in this sense, plants have a large role in shaping animal lives. One common thread in Critical Plant Studies is contending with how plants are conceived as inert, even though Darwin's *The Power of Movement of Plants* (1880) argues otherwise, and yet plant qualities have robust affective lines of movement that trace through place and imbue experiences with their affects; this is a real yet invisible form of movement.

To give some background of the tree in question, *Jacaranda mimosifolia* is in the Bignoniaceae family, and is native to and extant in the Piedmont forests in the Andes region of Bolivia and Argentina. They are declining in their native range, with an IUCN Vulnerable designation,[43] with agriculture, logging and wood harvesting as primary threats.

38 Oele, *E-Co-Affectivity*, pp. 5-6.

39 Ibid., p. 7.

40 T. Ingold, *Correspondences* (Cambridge: Polity, 2021).

41 Ibid., p. 13.

42 Oele, *E-Co-Affectivity*, p. 22, citing Eberhard.

43 R. Hills, '*Jacaranda mimosifolia*', *The IUCN Red List of Threatened Species 2020*: e.T32027A68135641. https://dx.doi.org/10.2305/IUCN.UK.2020-3.RLTS.T32027A68135641.en. Accessed on 3 July 2023.

Piedmont forests are the most threatened forest type in Argentina.[44] Local uses of the wood extend to fires, timber for carpentry and tool handles, while the bark is used as a medicine for venereal diseases,[45] and seeds and leaves treat liver and skin problems.[46] The tree is planted as a windbreak in agroforests, and cattle eat the leaves, leaf litter and branches. This species grows to 25–50 feet, with bi-pinnately compound leaves, and two-inch long flowers on twelve-inch panicles. Their bluish-purple colour derives from anthocyanins, a pigment also present in sweet potatoes and black beans. Blossoms are trumpet-shaped, and when they fall, they create a slippery goop on sidewalks from aphids feeding on flowers. The word 'jacaranda' means fragrant in Guarani language. Jacarandas are considered 'invasive' in parts of South Africa and in Queensland, Australia.

Methods

This enquiry tracks discourses related to how jacaranda trees and their blooming period contribute to placemaking across 123 years in Australian newspapers, documenting settler patterns and also vegetal influences. Working with qualitative methods, this project synergises discourse analysis with affective analysis. Australian newspaper articles were accessed through National Library of Australia archives online, while looking for articles on jacaranda trees, with special focus on the blooming period as this time period engages the most notice. Search terms included 'jacaranda blooming', 'flowering jacaranda', 'blooming jacaranda' and 'jacaranda tree'. The number of articles using these search terms from the 1920s to the 1960s are in the thousands, while other decades have much less, and some only 29 articles. Australia was chosen as the focal site because of the richness of news articles on jacarandas

44 A.D. Brown, S. Pacheco, T. Lomáscolo and L. Malizia, 'Situación ambiental en los bosques andinos yungueños', in A.D Brown, U. Martínez Ortiz, M. Acerbi and J. Corchera (eds), *La Situación Ambiental Argentina 2005*, (Buenos Aires: Fundación Vida Silvestre Argentina, 2006), pp. 53–71.

45 N.M. Mostafa, O.A. Eldahshan and A.N.B. Singab, 'The genus *Jacaranda* (Bignoniaceae): An updated review', *Pharmacognosy Communications* **4** (3) (2014): 31–39.

46 G. Torrico, L. Rea R. and S. Beck, *Estudio sobre los* árboles *y arbustos de uso múltiple en los departamentos de Cochabamba y Chuquisaca (Valles secos interandinos)* (La Paz: PROBONA, 1997).

and the settler relations to place. The sample size was eighty articles across the years 1900 to 2023, drawn from the online archive of newspapers held by the National Library of Australia. This time frame was chosen based on article accessibility in the archives and because jacaranda trees were first planted in Australia in 1865. Purposive sampling allowed for article selection with subjective decisions on how relevant the articles were to the study. Articles were chosen for content about jacarandas that included cultural content related to the trees, while articles were disregarded if the tree was mentioned in passing, unrelated to the rest of the text. Purposive sampling was suitable as it did provide representative sampling and the goals of the study were not statistical or probability focused, but were instead looking for trends in language and discourses.

Qualitative analysis involved coding the articles for themes, and then interpretations rooted in discourse analysis and affective analysis.[47] Affective methods are challenging as affect is bodily, fleeting and immaterial with a need for inventiveness and experimentation.[48] This called for analysing the texts for embodied qualities, felt experience, mood, networks and traces between them as well as bodily rhythms.[49] These analytical methods involve uncovering meanings in complex relations that constitute place that include settler processes of both unmaking and remaking place. The analytic section that follows presents newspaper excerpts divided into settler colonial imaginaries, discourses and practices and then vegetal affect and affective fields – and finally climate change. Excerpts often contain examples of different discourses and affects and not all are identified or discussed, and one sentence may contain multi-directional influences from plants and humans.

47 Y. Wu, 'Ecological discourse analysis', *2018 4th International Conference on Social Science and Higher Education (ICSSHE 2018)* (Paris: Atlantis Press, 2018).

48 B.T. Knudsen and C. Stage, 'Introduction', in B.T. Knudsen and C. Stage (eds), *Affective Methodologies*: *Developing Cultural Research Strategies for the Study of Affect* (London: Palgrave Macmillan London, 2015). pp. 1–22.

49 Ibid.

ANALYSIS: SETTLER COLONIAL IMAGINARIES, DISCOURSES AND PRACTICES

The analysis begins with newspaper excerpts that reveal discourses of settler imaginaries related to jacarandas as modes of relating to place in processes of unmaking and remaking.

> Even the small two trees in Jones Park are doing their bit, small as they are, to help bedeck our town … I would say that if you could see the town of Bourke bedecked as it is now by this glorious mauve blossom, your thoughts would at once go back to those days of which I just spoke and you would try to picture Bourke of that time, as I often do, sunburnt and glaring, dusty and hot to walk in, ugly and bare, and you would again recall that except for a few old Coolabahs, which, God forgive us, we tried our hardest to eradicate, except for these and one or two fine old Morton Bay Figs and of course, the fine old Jacaranda at the courthouse, there are no trees to looks at. And, if you could just pop in now and see this beautiful scene as the Jacaranda takes over from the Western Australian Gums, you would hope as I do that this blessing that has been brought to this town on the Darling will never be jeopardised for the sake of a few pennies.
>
> ('Happenings Around Our Town, Jacaranda Time', Western Herald, 8 November 1968)

This excerpt describes Bourke, New South Wales, located 800 kilometres from Sydney and considered to be the gateway to the outback. Sitting on the Darling river and home to the Ngemba people, Bourke was surveyed in 1869 to establish a township. Indigenous inhabitants fought settler land theft and established a local reserve in 1946. The above excerpt typifies the settler discourse around *terra nullius*, or empty space. The sentiment is of disgust for the way the land had been and of pride in re-doing the place, eradicating the local and native species, which reverberates with Aboriginal removal from some local territories. From this local Bourke newspaper, the settler re-making discourse has human overtones, as the town is 'bedecked' by two small jacaranda trees. This bedecking connotes discourses of pageantry and ornamentation as central to placemaking, is contrasted to the actual place as hot and dry, ugly and bare. The native species with long histories of co-evolution are *not* co-designers of place, and thus need to go. Meanwhile, re-designing the land with designations of which vegetal can stay or go, which exotic to replace natives with, is a process lacking attention to local conditions. The Morton Bay figs and the jacarandas are 'fine', while Coolabahs and Western Australian gums are not. Coolabahs are a dry zone riparian

species that germinates from flooding and provides significant riparian habitat with food, shelter and shade for many species.[50]

Bourke is a site of revision, as place is redefined and civilised[51] with jacarandas. This form of settler placemaking is 'influenced by the twin forces of colonisation and commodification, each of which selects in favour of exogenous ideals at odds with adaptation'.[52] Settlers set the aesthetic standards and clearly as expressed here, devalue native species and aesthetics in favour of one that matches images from media or other colonised centres.[53] 'The framing of particular plants as belonging or not in certain places is a culturally variable practice that pays only partial attention to the exuberance of planty life.'[54] This coincides with erasures of all local cultures, both human[55] and more-than-human and denies trees and other beings as knowledge holders.

> But the jacaranda tree I like best belongs to no home of ease and luxury. It grows in a sordid narrow street in Darlinghurst, in a backyard in the midst of a row of unpainted-depressed looking houses, all alike in dinginess and poverty. It is the only brave, beautiful note of color in the unlovely spot, and I think there are many who gain a message of hope and brightness as they look at the ethereal flowers which blossom so courageously in the ugly street. Many hearts will sorrow when the all-too-brief life is ended – til next November.
>
> ('Jacaranda', *Evening News*, 4 December 1922)

From a Sydney-based news outlet, here a jacaranda tree both generates and symbolises upper class luxuries and sensibilities, in contrast to poverty and squalor, asserting discourses of class difference that are legacies of colonial processes. Certain plants and animals in different cultures become symbols of wealth, luxury and status, and thus participate and even unwittingly assert class divisions. Beauty is a commodity

50 J.F. Costelloe, J. Leeder and M. Strang. 'Drivers of the distribution of a dominant riparian tree species (*Eucalyptus coolabah*) on a dryland river system, Diamantina River, Australia', in J. Webb, J. Costelloe, R. Casas-Mulet, J. Lyon and M. Stewardson (eds), *Proceedings of the 11th International Symposium on Ecohydraulics* (Melbourne: University of Melbourne, 2016).

51 Frawley, 'Detouring to Grafton'.

52 Plumwood, 'Decolonising Australian gardens'.

53 Ibid.

54 L. Head, J. Atchison, C. Phillips and K. Buckingham, 'Vegetal politics: Belonging, practices, and places', *Social and Cultural Geography* **15** (8) (2014): 861–870.

55 J.M. Bacon, 'Settler colonialism as eco-social structure and the production of colonial ecological violence', *Environmental Sociology* **5** (1) (2019): 59–69.

in class structures, with upper class urban spaces privileged with beautiful vegetation that lower income groups lack access to experience. This privileging is echoed in the Christian concepts of heaven as beautiful, clean and pure. The jacaranda becomes such a symbol in the discourse of settler place re-making, and is appropriated as a commodity to serve this distinction. Related to the processes and discourses of 'civilised' conqueror and 'uncivilised' indigenous inhabitants, this juxtaposition seems to interpret the tree's affect as privileged, as above the fray. The tree's beauty, one could argue, has the effect of making invisible the lack of equity or underbelly of capitalist society. Somehow the tree is called 'brave' and 'courageous' to be in a 'sordid' street, facing the realities of poverty. This correlation of jacarandas with wealth is echoed in other articles in the data set. Throughout both excerpts above, the tree – as a settler, as a non-native – stands in contrast to poverty as well as to the local conditions.

The single jacaranda is framed as a lone plant, without a community, which is a settler practice of de-centering community, removing and devaluing contextual factors for all beings in settled spaces. Research that works with plant agencies takes seriously not the individual plant alone, but the plant communities that each plant resides in and evolves with.[56]

> Harare's Jews, many of whom earn their living from manufacturing fabrics, clothing, and furniture, lead privileged lives. But there is a tenuous element to their lifestyles, since the political and economic future of the country is uncertain. Harare is a modern city, made beautiful by countless jacaranda trees covered with huge purple flowers that carpet its streets with purple. But outside the capital, people live in desperate conditions in mud huts, lacking proper housing, food, and medical care.
>
> ('Zimbabwe Jews' concern for the future', *Australian Jewish News*, 11 November 1994)

In this article from a Sydney-based Jewish newspaper, jacaranda trees in Zimbabwe are both beautifying, associated with privilege, and a discursive instrument for remaking place. This tree is cosmopolitan, circulating across continents in both material and discursive ways,[57] being

56 S. Elton, 'Growing methods: Developing a methodology for identifying plant agency and vegetal politics in the city', *Environmental Humanities* **13** (1) (2021): 93–112.

57 M. Barua, 'Circulating elephants: Unpacking the geographies of a cosmopolitan animal', *Transactions of the Institute of British Geographers* **39** (4) (2014): 559–573.

a symbol and structure of empire in places. In this former British colony, most Jewish settlers were refugees from war and genocidal conditions, and yet here jacarandas in the urban environment become associated with Jewish prosperity and privilege. The colonial and postcolonial demarcation line is clear, the beautiful purple-carpeted spaces and outside the line, where people live desperate lives.

> The Queen Mother looked magnificent in a classic dress of jacaranda blue and a matching hat with osprey feathers.
>
> ('Joyous 80th birthday thanksgiving for the beloved Queen Mother', *The Australian Women's Weekly*, 6 August 1980)

Here the bluish, purple colour of jacaranda blossoms are appropriated by the Queen Mother in the same way that the wattle tree became the Australian national symbol in 1988, becoming a discursive symbol of unity in nationhood within the Commonwealth, a body under foreign control. Clothing that mimics the local and beloved tree blossoms thereby becomes a practice of empire and colonial control. While the settler discourses are blatant, the vegetal affective influences are also distinct, which is discussed next.

Trees as affective beings and the qualities of plant recognition

Affect theory in general, and affective ecologies in particular, position diverse humans, other species (including plants) and forces (like the wind and weather), all transmitting and contributing to a localised affective field. As such, plants are *subjects*, not objects, and this appears in linguistic forms, in grammar and in content. Qualities are significant in this analysis, as they connect affect theory with conceptions of place. Casey describes place as having 'character' and, as described above, affect involves qualities in mood, feeling and atmosphere. Place, he writes, is also complementary with imagination and memory.[58] The affective qualities of trees in the news excerpts occur here in four modes: 1) in plants as subjects expressed in grammatical forms such as transitive clauses in which plants are the actors, being subjects of the sentence; 2) in tree qualities as perceived by humans; 3) in the powers or influences of trees and their qualities on human experience; and 4) finally, in how

58 Casey, *Getting Back into Place*, p. xvi.

the trees' qualities contribute to placemaking. The excerpts are listed chronologically to elucidate diachronic changes in discourses and trees affective qualities.

> A controversy has been carried on in Maryborough for some time as to whether the jacaranda tree is injurious to public health. It has been pointed out by some people that at the period of the year when the tree burst into bloom an epidemic occurs in the city, and this year there was a severe outbreak of influenza in Maryborough during the blossoming period of the trees. By a coincidence the jacaranda blooms during the dry period of the year, and the supporters of the jacaranda aver that the dry weather, dust, and bad drainage are the cause of the illness.
>
> ('Jacaranda bloom and influenza', *Kyogle Examiner*, 7 December 1918.)

Here, in the *Kyogle Examiner*, based in Kyogle, New South Wales, the grammar and sentence structure attribute no special subjectivity to the trees, but the jacaranda's influence is marked with the possibility of causing influenza. This article appears during the Great Influenza epidemic that claimed 40–50 million lives worldwide, though the article suggests this tree-illness correlation started before the epidemic. This excerpt reveals an affective power toward human bodies, related to the temporal co-emergence between blossoms and illness. The potency of the tree and blossoms is felt in this assertion, and many more articles cite this association from this time period.

> A Jacaranda Tree
>
> I sat within the house of prayer,
> Untouched by ecstasy,
> Though listing heaven's glories rare,
> The good man's discourse – planned
> with care!
> No message brought to me!
> he led me up no golden stair,
> Beauty's High Priest to see!
> When lo! Without, in summer glare,
> A jacaranda tree,
> A mystic thing – by angels kissed
> to strange unearthly bloom,
> Dreaming mid lovely lilac mist,
> Softer than softest amethyst,
> Frail blooms – too frail for earth I wist,
> Dropped to their scented tomb!.....
> I bowed in reverence – unaware,
> And worshipped in the street,

Thus beauty built the golden stair
That led me to God's feet.
(Emily Hemans Bulcock, 'A Jacaranda Tree', *Brisbane Courier,* 19 April 1923)

The jacaranda tree, here in the *Brisbane Courier*, exerts an affect of awe and mysticism, offering a genuine spiritual and mystical experience, contrasted with a lack thereof where it would normally be found – in church. The jacaranda is not an appropriated object but a divine subject, offering a physical experience within their purple amethyst bodies, both above in the branches and below on the sidewalks where blossoms gather. The jacaranda body is a place of experience, and, in this instance, of a mystical experience that is triggered from the trees' beauty, purple colours, along with something ineffable. Each of the four categories are present; although the tree is called a 'thing', a sense of personhood emerges in the tree's powers and influence. As a placemaker, jacarandas here provide access to an imminent vegetal form of divinity of greater power than institutional religion offers. Interconnections of place and the divine appear in the word *Makom*, which is a name for God in Hebrew, while also meaning place.[59]

The poem and affective power of jacaranda flowers is so potent and multi-dimensional that it correlates, as mentioned earlier, with the Aboriginal Yolŋu term, *bir'yun*, translated as 'shimmer', which Bird Rose described in her last book.[60] *Bir'yun* or shimmer is a manifestation of ancestral power, which can be found emanating from flowers, and it is transformative. She learned this from Aboriginal people in the Victoria River region in northern Australia, and also draws on Morphy, who describes shimmer for the Yolŋu people of Australia as an aesthetic, an affective power, a sensory experience that can capture someone so that they can participate in ancestral power.[61] Bird Rose speaks of shimmer in angiosperms, and specifically in flowers, as they entice and seduce non-humans and humans alike.[62] It arises in painting and ritual, dance and song, and it involves pulses of both dullness and brilliance. As a painter builds up the surface with paint that can be dull, this dullness is

59 Casey, *Getting Back into Place*, p. 17

60 Rose, *Shimmer*.

61 H. Morphy, 'From dull to brilliant: The aesthetics of spiritual power among the Yolngu.' *Man* **24** (1) (1989): pp. 21–40.

62 Rose, *Shimmer*, p. 140.

required for the next steps and for the potential transformative power of shimmer. All life carries this pulsing, which takes place in seasons, in new growth. Shimmer speaks to some of the affective power of jacarandas in bloom, and how the trees bloom before their leaves come out, from a dull appearance to a brilliant one. Affect theory has also been called an 'inventory of shimmers', a phrase from Roland Barthes, and carried forth by Seigworth and Gregg.[63] In this context, shimmers refer to the way affect in everyday encounters changes in intensities and, as Barthes says, can be noticeable in odours and luminosities.

To give a sense of the affective power of jacarandas, poets from other countries where jacarandas have been planted also wax poetic about their aesthetic and spiritual qualities. These are evident in the following poem by Mexican poet Alberto Roy Sanchez, from his *Dicen de Jacarandas* about jacaranda trees in Mexico City.

> Immortal and Fleeting
>
> They rush
> to the ground
> and at the same time
> they are reborn
> on the branch
> as if they lived
> beyond life.[64]

Written many years after the Bulcock poem, Sanchez expresses the tree again as outside of time, being 'beyond life', with powerful influences in the words 'reborn' and 'immortal'. Jacarandas opening up a mystical portal is a theme in the dataset, especially before 1970.

> Jacarandas! Jacarandas in every direction. They force themselves on your notice wherever you go; follow you into the office, chase through your mind all day, dispel your fatigue – if you will but dwell on their radiant glory – as they line your way home, and, at last, lull you to sleep by the memory of their swaying in the breeze, and pursue you in your dreams.
>
> ('Jacaranda', *Sunday Mail,* 31 October 1926)

63 G.J. Seigworth and M. Gregg, 'An inventory of shimmers', in M. Gregg and G.J. Seigworth (eds), *The Affect Theory Reader* (New York, USA: Duke University Press, 2010): pp. 1–26.

64 Sanchez, *Dicen las jacarandas*.

This passage from 1926 expresses all four of the above affective modes. Trees are subjects, actors who 'force themselves on your notice … dispel your fatigue'. In transitive clauses, the tree is the subject and the one who directs the action. The descriptive quality mentioned is their 'radiant glory'. Their influence comes as a power to 'lull you to sleep … and pursue you in your dreams.' These strong verbs and influencing movements speak to Oele and Ingold's work on the middle voice, in which the actor becomes their doing, or when being and doing synthesise. This article speaks of jacarandas as potent forces of character or qualities in place, as the trees' presence directs situated experience, actions and feeling states (dispelling fatigue), as well as more ephemeral nighttime activities such as sleep and dreams.

> … they are flaunting a blue-mauve glory against the sky. They lend a moment's colour to the drabness of the paling fence or the ugliness of the bottle-yard. From their position between the guarding figs and eucalyptus they wave one painted hand as if in invitation to rest beneath loveliness. They dare stand with their backs to the sea. Their colour puts the road signs to shame, and even makes the sky a little old and faded.
>
> ('Blue-Mauve', *Sydney Morning Herald,* 22 November 1930)

Again, the jacarandas are active and powerful, 'flaunting', 'waving one painted hand', and daring. Their influence here is in creating contrasts between the mundane, the drabness of the local place, 'ugliness of the bottle-yard' with the beautiful and glorious. As a placemaker, jacarandas inspire utopian visions, chances to escape from the mundane qualities of native Australian landscapes and the drudgery of economic distress. This passage thus synergises vegetal affect with settler re-making and denigration of local conditions that seem related to fears of and experiences of *atopos*.

> It is possible that in this year of 1942 with an enemy at the gates of Australia, we can appreciate beauty with an even keener tang, since a realisation of impermanency sharpens the edge of joy … Blue is the dominant note of Grafton now. It is adamant, boisterous in its demand for recognition. The trees are canopies of blue that in a very riot of prodigality shake a carrot of equal blue about their feet until the streets are inches deep in beauty.
>
> ('Jacaranda Time', *Daily Examiner*, 31 October 1942)

In 1942, jacarandas are placemakers (in a Grafton newspaper) that antidote the misery of a world war, and the discourse relates to beauty signifying acceptance of impermanence. The trees gain recognition as

subjects, not from grammatical construction, but the colour blue is the active one here, being adamant and boisterous, suggesting strong affective qualities and character. Influence is in the beauty of the brief blooming period and in the embodied physicality of the flowers that fall on the ground, so that human bodies and place become immersed in their affects. This excerpt, like others, contrasts the vegetal world against the human industrial one, suggesting the vegetal as an access point to better, more beautiful and more just possible worlds.

> First they speak in beauty. … They also speak of beauty. In an age dedicated to the ugly cult of atomic devastation, the message of beauty is of paramount importance. If we could transplant the beauty of the Jacarandas into every human heart the world would be nearer heaven in an instant, a poetic fancy. … Secondly, the jacarandas speak of power and purpose. They appear in their spring blossoms according to schedule. No meetings or reports or recommendations are necessary. They have a job to do and their power and glory appear each year on time. Just as well, or our Festival would never be held.
> From the jacarandas also comes a message of goodwill. The happiness of our famous festival is its chief appeal. For a few days the woes and worries of life are forgotten.
>
> ('Jacaranda Days', *Daily Examiner,* 5 November 1953)

In this excerpt from the following decade (1953), jacarandas are subjects that have voice, communicating beauty, power and purpose, which connotes personhood, while asserting these qualities as necessary and needed by humans. Their affective influence appears to run parallel to the industrial world, as jacaranda worlds exert a discursive kind of social philosophy, an ontology rooted in beauty and goodwill. As placemakers, this influence creates spaces that counter war and nuclear weapons. They evoke a quality of essentialness, the primordial, or what Marder describes as the vegetal providing an essential ground of being.[65]

> Each year in late spring, 3000 jacaranda trees in Grafton, NSW, burst into bloom and the whole city goes a little mad. For when the huge, glorious trees (allowed to grow taller than is usual in the capitals) spread their lavender-blue lace over Grafton and lay petalled carpet underfoot, the city celebrates the Jacaranda Festival. It erupts in jollity, as it has done annually for 41 years. This solid, dignified city on the Clarence River sees its steady citizens dress in shades of purple, place purple ribbons round the neck of dogs, while children ride on

65 M. Marder, *Through Vegetal Being: Two Philosophical Perspectives* (New York: Columbia University Press 2016).

> purple-painted bicycles which tone with the party hats, ice cream, streamers, and leis.
>
> ('Grafton's Glorious Jacaranda', *Australian Women's Weekly,* 3 December 1975)

In the mid-1970s, the jacaranda trees continue to shape collective and cultural events with the springtime festival as shapers of place. They burst, spread and lay – active verbal forms, connoting trees as subjects. The affective role of trees traces across to human experience of jollity, to comportment of a gay kind, and to mimicking blossom colour in clothing and all kinds of party accessories. The embodied experience of the trees as mystical, as communicating, is no longer highlighted in the 1970s which coincides with the neoliberal era, globally deracinating cultural relations to place. The next excerpt is from five years ago, and expresses a shift in an ethos towards vegetal lives.

> Jacarandas are an arboreal mirror that reflects the ugly state of our digital gratification-obsessed society. They're a short lived sugar hit of twigs and flowers that Instagram users inject directly into the social media main vein to live, laugh, love before the itch comes back and they move on to their next picture-perfect project.
>
> The trees themselves are all show and no go. The purple blooms that whip everyone into a frenzy last all of 30 seconds before the flowers fall off and sully the ground below with what can only be described as 'moist spots'. In a country built on hard work we openly celebrate a tree that spends most of the year doing nothing.
>
> ('The Jacaranda City', *Sydney Morning Herald,* 3 October 2018)

Here, in quite a strong contrast (2018), jacarandas are objects without their own subjectivity, but are mirrors, reflecting society's and specifically social media's evils. Most jacaranda articles from 2020–2023 mention social media and the frenzy of taking selfies with jacaranda blossoms, reflecting corporate mediation of vegetal experiences. The trees' active qualities and influences are negative again, circling back to the 1918 article, though not with acute illness but with a chronic malaise of modern society and by sullying the ground with their blossoms. They are loafers here, contrasted with humans who built the nation 'on hard work.' The blossoming time is no longer an access point to other realities, but is akin to a sugar rush, or a form of instant gratification that social media promulgates. The author portrays the jacaranda as an object that inspires frenzy, consistent with digital culture, in which seasons are commodified and objectified.

> As jacaranda trees begin to bloom, University of Queensland grounds manager Shane Biddell has warned students about a superstition on campus. 'My wife, who was a UQ student, told me the myth she heard was that if you were hit by a falling jacaranda [blossom], you would fail your exam', he said. 'I warn students now and tell them don't get hit, otherwise you'll fail your exam. But some tell me, no, it's the opposite – if you get hit, you'll ace it.'
>
> ('Blooming jacarandas set to cause havoc with UQ exam results'. *Brisbane Times,* 27 September 2020)

Jacarandas' perceived affective roles are evident in how they influence those touched by the blossoms, leading to either exam failure or success. This superstition emerges from and with the trees' spatial and temporal positions, growing on university campuses and blooming during exams in springtime. This superstition travels with jacarandas, occurring in South Africa as well, and is somehow resonant with Amazonian lore where the tree is connected with wisdom and the moon.

DISCUSSION

These newspaper excerpts and analysis offer a sense of the complexity and intensity of human–plant relations in the discursive domain of place, belonging and worldmaking. For all the decades up until the 1970s, qualities of vegetal recognition and influence coexist with qualities of community and place and with settler remaking. Jacaranda influence appears in realms of bodily experience of the tree's shape, colour and beauty that generates intimations of mysticism, creativity, beauty, pride of place and a vegetal temporal frame. These are phyto-situated discourses, with the human-nested inside the vegetal structure of the world. Jacaranda trees offer affective and placemaking qualities in senses of home and belonging, in the shared ritual of blossom festivals that echo through history of cultural meaning in springtime flowers and rituals. This speaks to plants as ancestral, as living on earth many eras before *Homo sapiens sapiens*' arrival, and recalls the Yolŋu term *bir'yun*, or shimmer, that runs through flowers as manifestations of ancestral powers.[66] The jacaranda tree in these articles is an affective agent that shapes the world, mirrors human conceptions, and rattles at the divide of nature-culture, especially before 1970. Yet processes of extraction,

66 Rose, *Shimmer*.

devaluing and removal of localised ecocultures coexist with these vegetal influences, with efforts to remove local beings and to fill up and ornament the 'empty', dusty landscape. One could argue that settler nations build their lifeworlds on top of the ground, often denying and attempting to discard embedded local histories and ecologies.

The nature/culture divide involves a depersonalisation of nature and of humans from the living world that has two strands according to Kohák; one conceptual and one experiential.[67] 'In our time, however, the phenomenon has become global and the sense of depersonalisation of nature and of humans within it reaches far deeper.'[68] 'Since the seventeenth century, Western thought – and popular thought in its wake – gradually substituted a theoretical nature-construct for the nature of lived experience in the role of 'reality'";[69] 'humans have to depersonalise their world in their imagination in order to be able to exploit it ruthlessly in their actions'.[70] A complex personalisation and also depersonalisation occurs across the data set in accessing vegetal qualities and influence, with a loss of the living world as communicative. This echoes Raymond Williams on the word 'nature', which he says holds the most complex meanings in the English language, containing contradictions of what is most essential and also what is separate from humans, among others.[71]

Journalism and the news media are significant sites for accessing news and information about the living world and other species, especially in this time of ecological crises. This paper asserts how both the colonial and postcolonial discourses around place, yet also the vegetal affective and discursive qualities, can be accessed in journalism, a combination that is not well studied or documented. Journalism shapes public consciousness and the potential for accessing vegetal subjectivities is substantial yet is likely unfavourable to corporate models of journalism.

A change is noticeable in the diachronic analysis, around the 1960s and 1970s, in language and conceptions of jacaranda trees. The transitive

67 Kohák, *The Embers and the Stars.*

68 Ibid., p. 11.

69 Ibid., p. 12.

70 Ibid., p. 11.

71 R. Williams, *Keywords: A Vocabulary of Culture and Society* (London: Fontana Press, 1976).

grammar that speaks of plants as persons is gone, as are the strong imaginaries, which have turned into weaker ones. The land and vegetal inhabitants become depersonalised, as strangers in a strange land. This time period is also the rise of neoliberalism, with Thatcher's haunting words, 'there is no such thing as society', with deregulating public commons and infrastructure, leaving individuals to fend for themselves. In my work in Sri Lanka, a change from cultural landscapes to extractive landscapes, in which nature and culture are treated as separate spheres, took place in this same time frame.[72] This new political economy extends to the vegetal who becomes increasingly commodified, depersonalised and perceived as mute objects.

Jacarandas and their blossoms in settler and neoliberal imaginaries are objects to imbue the landscape with colour, beauty and meaning in a land that was perceived as empty. These efforts call to mind the ancient Greek philosopher Plato, and his concept of the ideal that is perfect and eternal, in contrast to what is present and emplaced and real. Their beauty, as stated earlier, can be interpreted as a force of erasure for diverse beings[73] and yet also of genuine experience, in a meshwork of complexities that are human–vegetal relations. Trees, as part of the living world, become mirrors and agents of lived experience in place, and thus the influenza epidemic of 1918, World Wars I and II, the depression of the 1930s and the social media influencer all appear in human–jacaranda relations in newspapers across the years. Inhabitants of Grafton and other settler towns identify themselves and their meaningful experiences with the blooming of these trees, in such a way, that the blooming becomes entangled with humans in placemaking, both being relative newcomers. The colour, scent, shapes and atmospheres created by the trees in their blooming period shape human experience – the trees are affective in this regard. Jacarandas shimmer across the decades and shape human experience, culture, place and sense making as robust beings with much to say.

72 E. Oriel, A Field Guide to Human-Elephant Relations and Conflict in Sri Lanka: Patterns, Roles, and Rhythms of Multispecies Socialities within Conflict and Cohabitation. Ph.D. diss. University of London, 2022.

73 J. Carr, and T. Milstein, '"See nothing but beauty"': The shared work of making anthropogenic destruction invisible to the human eye', *Geoforum* **122** (2021): 183–192.

ACKNOWLEDGEMENTS

I am grateful to Henrik Bødker, Michelle Bastian and Sandra Simonsen for their comments and suggestions. This research was conducted as part of Aarhus University's project 'Seasonal Journalism as Vernacular Phenology', funded by Aarhus University Research Foundation.

A version of this paper appears in Elizabeth Oriel's monograph, *Shaped by Vegetal Matters: Phyto-Influence on Humans, Other Animals, and Place* (Lexington Books, to be published on 15 December 2024).

Elizabeth Oriel, Ph.D. (Global Studies, University of London), uses more-than-human ethnography to study the triad of human, other-animal and vegetal relations. Her research on human–elephant conflicts in Sri Lanka foregrounded research on plant agencies and changing human–plant practices and perspectives over seventy years. Oriel's monograph, *Shaped by Vegetal Matters*, published in Lexington Books' Critical Plant Studies series, takes seriously the lively and foundational influences of plants. Her postdoctoral research at Aarhus University examined how the news media presents other species' changing lifeways from global heating. She is a faculty member in Southwestern College's Visionary Practice and Regenerative Leadership Ph.D. programme.

Email: lizzieoriel@gmail.com

Alissa Ujie Diamond

Entangled Genealogies: Mulberries, Production of Racial Categories, and Land Development in Central Virginia

PLANT PERSPECTIVES 3/1 - 2026: 61–97
DOI: 10.3197/WHPPP.63845494909743
OPEN ACCESS CC BY 4.0 © THE AUTHOR

ABSTRACT

This article traces the history of white mulberry (*Morus alba*) alongside the histories of Charlottesville, Virginia and the author's genealogy as a mixed-European and Asian-descended American, to explore the situated and connected histories between plants, land and humans. This approach allows the re-mixing of various kinds of knowledge (designerly, personal, archival, scholarly) available to the author, and explores the ways in which attention to place, plant and people can reveal the entanglements between living actors and mega-systems of racial capitalism, and point toward further avenues for inquiry for those seeking to build worlds beyond capitalism

KEYWORDS

Morus alba, Charlottesville, racism, capitalism, landscape history, migration

INTRODUCTION

Origin: China

Background: White mulberry was introduced to the U.S. during colonial times for the purpose of establishing a silkworm industry.
Distribution and Habitat: White mulberry is widespread in the U.S., occurring in every state of the lower 48 except for Nevada. It invades old fields, urban lots, roadsides, forest edges, and other disturbed areas.
Ecological Threat: White Mulberry invades forest edges and disturbed forests and open areas, displacing native species. It is slowly outcompeting and replacing native red mulberry (*Morus rubra*) through hybridization and possibly through transmission of a harmful root disease …
Prevention and Control: White mulberry seedlings can be pulled by hand. Otherwise, cut the tree and grind stump or paint the cut surface with a systemic herbicide like glyphosate or girdle the tree (see Control Options)

[White mulberry (*Morus alba)*, plant fact sheet excerpt from *Plant Invaders of Mid-Atlantic Natural Areas*][1]

1 Jil Swearingen et al., *Plant Invaders of Mid-Atlantic Natural Areas: Revised & Updated- with More Species and Expanded Control Guidance*, 4th edition (Washington D.C.: National Park Service and U.S. Fish and Wildlife Service, 2010), pp. 89–90.

This fact sheet describes *Morus alba* or white mulberry, a scrubby mid-size tree that I saw every day in hedgerows, fence lines and other marginal spaces in Charlottesville and Albemarle County, Virginia, where I lived and worked for seventeen years. The directives on the sheet reflect the generally accepted management ethic with regard to 'invasive' plants like the white mulberry: eliminate them to 'preserve' biodiversity. I am a landscape architect, so I have specified pesticides to eliminate nuisance trees on clients' properties in the region. But this description also zings me every time, calling back to experiences on schoolyards where features of Asian-ness exhibited in physical body and family's foods and language brought out the same metaphors of pollution, invasion and the necessity of elimination.

This description's wording reveals three aspects of the set of relations it proposes. First, it assumes the ideal future is a pure place, a landscape that has undergone a process of 'restoration' that paradoxically returns to a state of ideal native biodiversity. Second, it assumes it is speaking to a controlling subject who 'manages' or 'maintains' the land to this desired state. Third, it evokes the language of racism and xenophobia, to lend urgency to the threat of invasion. It implies but also hides this triad of presumptions about person, plant and place.

METHODS AND THESIS: PLANTS, PERSON AND PLACE

This article traces human relationships to place through the mulberry. This story uncovers formations that thread through successive historical natures[2] involving people, plants and place. I find broader repeating patterns that emerge from and cut through the changing material strategies, ecological arrangements and social formations human actors try to use to derive profit from land and people. The three formations that come into focus are the environmental 'enemy'; evolving social and ecological practices that extract profit from land and people; and a kaleidoscope of shifting spatial-racial categories of 'white' and 'Asian' in relation to parallel formations of 'Black' and 'Indigenous' as labels and attitudes that move between human and extra-human beings. It traces continuities in various modes of capitalist land-use over time, and explores the

2 Jason W. Moore, *Capitalism in the Web of Life: Ecology and the Accumulation of Capital* (London, New York: Verso, 2015).

ways systems recycle, reorient and reassign logics of racial hierarchy in changing contexts.

I use the particular examples of person (my genealogical history, particularly my Ujie and Durie antecedents), place (Charlottesville, Virginia where I lived for seventeen years) and plant (history of *Morus alba*) because tracing these three threads together allows me to remix the different types of knowledge available to me as a researcher.[3] Studying *Morus alba* allows me to draw in my knowledge as a registered landscape architect, a person given societal authority to provide official recommendations on 'proper' management of landscapes. My position as a mixed-heritage Euro-Asian American gives me familial and genealogical access to stories about how I came to be here in terms of broader historical and economic forces and migrations, stories about variegated racialisations my antecedents faced or embraced, and personal experiences of living in a racialised and gendered body in the United States and Japan. Many histories focus on the historical lives of regional ecosystems and cultivated plant complexes,[4] on physical and cultural histories of bounded places[5] and on the evolution of categorisations of people.[6] Tracing my historically situated relationships to the white mulberry effectively 'rebundles' available knowledges and brings patterns I could not trace otherwise to light, and allows me to explore

3 Andrea Roberts and Grace Kelly, 'Remixing as praxis: Arnstein's Ladder through the grassroots preservationist's lens', *Journal of the American Planning Association* **85** (3) (2019).

4 Examples include Donald Edward Davis, *Where There Are Mountains: An Environmental History of the Southern Appalachians* (Athens, GA: Univ. of Georgia Press, 2000); Philip D. Morgan, *Slave Counterpoint: Black Culture in the Eighteenth-Century Chesapeake and Lowcountry* (Chapel Hill: Published for the Omohundro Institute of Early American History and Culture, Williamsburg, Virginia, by the University of North Carolina Press, 1998).

5 Examples include Daniel M. Bluestone, *Buildings, Landscapes, and Memory: Case Studies in Historic Preservation*, 1st ed. (New York: W.W. Norton & Co, 2011); K. Edward Lay, *The Architecture of Jefferson Country: Charlottesville and Albemarle County, Virginia* (Charlottesville: University Press of Virginia, 2000)

6 Examples include Noel Ignatiev, *How the Irish Became White*, Routledge Classics (New York: Routledge, 2009); Claire Jean Kim, *Asian Americans in an Anti-Black World* (Cambridge, United Kingdom; New York: Cambridge University Press, 2023); Nell Irvin Painter, *The History of White People* (New York: W.W. Norton, 2011).

the ways racialisations of human and extra-human creatures move back and forth to create human-natural cultural complexes.[7]

SEVENTEENTH CENTURY: MULBERRIES, SILK AND INTRA-EUROPEAN RACIALISMS AND MIGRATION

In the historical record, white mulberries are conjoined with silk-making, as the silkworm (*Bombyx mori*) prefers the leaves of *Morus alba* over other food sources. Early material remains of sericulture appear in China,[8] and humans brought silk technology and white mulberry trees to Japan, through the Mediterranean and into France by the twelfth century CE.[9]

Silk threads through the records of both my family history and place-based histories of Central Virginia, and over time illuminates parts of the evolving system of racial capitalism that Cedric Robinson describes. He argues that European capitalism extended the social logics of feudalism, which seized on and amplified antagonistic differences between socially and historically produced human groups within Europe.[10] As Brian Williams and Jayson Porter summarise, 'from its very inception to its daily reproduction, capitalism is dependent upon racism as a technology of division, coercion, and legitimation'.[11] Robinson traces successive waves of players who formed early proto-capitalist classes and makes the argument that there was no literal or genealogical continuity between eras. He observes a continuity and elaboration of *practices* that fed on war and violence stoked by intra-European racialisms.[12] He

7 This work expands on frameworks from Karen Cardozo and Banu Subramaniam, 'Assembling Asian/American naturecultures: Orientalism and invited invasions', *Journal of Asian American Studies* **16** (1) (2013): 1–23.

8 Timothy J. LeCain, *The Matter of History: How Things Create the Past*, Studies in Environment and History (Cambridge, United Kingdom: Cambridge University Press, 2017), p. 216.

9 Shichiro Matsui, 'The history of the silk industry in the United States: Chapters I and II', *Silk*, Oct. 1927: 70–72.

10 Cedric J. Robinson, *Black Marxism: The Making of the Black Radical Tradition* (Chapel Hill, N.C: University of North Carolina Press, 2000), p. 10.

11 Brian Williams and Jayson Maurice Porter, 'Cotton, whiteness, and other poisons', *Environmental Humanities* **14** (3) (2022): 499–521, at 502.

12 Robinson, *Black Marxism*, p. 21.

argues that this structured instability facilitated the rise of 'opportunistic strata, wilfully adaptive to the new conditions and possibilities offered by the times'.[13] Between the fourteenth and sixteenth centuries, these early capitalists operationalised the imperial ambitions of the emerging nations-states based in Castile (Spain), the Ile de France and parts of England around London.

English imperial silk-profit aspirations brought both white mulberries to Virginia, and my first European ancestors to North America. In England, initial ambitions by King James I (reign 1603–25) to start an English sericulture were foiled by the cold climate: 'having failed to raise silkworms in England, [he] urged the Virginia Company to promote the cultivation of mulberry trees and the breeding of silkworms in Virginia'.[14] By the 1620s, King James I supported research on silkworm raising and ordered all settlers in Virginia to plant mulberry trees for silkworm rearing. Allison Bigelow argues that English Protestant monarchy and wealthy investors in the Virginia Company sought to strengthen England's global economic position by diversifying from its singular dependence on tobacco in Virginia through sericulture, a 'small scale industry that harvested colonial wealth and wove together different body politics in the name of common empire'.[15] This vision argued for a transition from tobacco, a cured and perishable product, to raw silk.[16]

The same silk-laced English political and economic aspirations that brought *Morus alba* to Virginia also brought my European ancestors to North America. My earliest European antecedent[17] in what is now known as the United States was my seventh great grandfather, Jean

13 Ibid., p. 19.

14 Shichiro Matsui, 'The history of the silk industry in the United States: Chapter III' *Silk*, Nov. 1927: 66.

15 Allison Margaret Bigelow, 'Colonial industry and the language of Empire; Silkworks in the Virginia Colony, 1607–1655', in Joseph War (ed.), *European Empires in the American South: Colonial and Environmental Encounters*, Chancellor Porter L. Fortune Symposium in Southern History Series (Jackson: University Press of Mississippi, 2017), p. 22.

16 With the influx of Spanish precious metals from the Americas in the 17th century, and the attendant monetisation of the European economy, England was scrambling for fungible and transportable commodities to supplement tobacco. Jason Moore, '"The modern world-system" as environmental history? Ecology and the rise of capitalism', *Theory and Society* **32** (3) (2003): 307–77.

17 At least to my knowledge.

Durier (b. 1634),[18] a French Huguenot who appears in English colonial land records in New Jersey in the late 1680s. Huguenots were a protestant religious minority, often skilled middle-class labourers who took up Calvinist Christianity. Colonial authorities saw Huguenots as having 'southern European skills uncommon in England, most especially in the creation of valued Mediterranean commodities like silk, wine, and oil'.[19]

Anti-protestant violence racked France and other parts of Europe periodically before Durie's emigration, and Robinson situates Huguenots within a broader pattern of Intra-European displacement and persecution that made people available for economic use 'woven into the tapestry of a violent social order'.[20] English Stuart monarchs who controlled New Jersey at the time viewed Huguenots as economically useful agents of empire who 'forged a place in the world by advocating for a new kind of protestant imperialism'.[21] Durier and his French compatriots' ability to obtain British colonial land[22] leaned on a growing trend in intra-European identity politics: French Huguenots increasingly identified as a people who held know-how of Mediterranean industries. Stanwood observes that 'supplicants learned that they could open the coffers of the English crown by asking for land on the edges of empire and specifically by playing up their facility in producing silk and wine'.[23] Durier's identity as a Huguenot would have aligned his religious status with the economic desires of the nascent British empire, providing one of many useful paths 'for the English and Dutch to develop

18 The family later anglicised the name, so by living memory, went by Durie. I am unsure of when this transition happened, and will use both Durie and Durier depending on the timeframe of the documentation/conversation, but both are effectively the same surname.

19 Owen Stanwood, *The Global Refuge: Huguenots in an Age of Empire* (New York: Oxford University Press, 2020), p. 4.

20 Robinson, *Black Marxism*, pp. 21–24.

21 Stanwood, *The Global Refuge*, p. 9.

22 While it is unclear from the records I have found to date the specifics of the terms and appeals used to obtain Durier's passage to the US and the group of Frenchmen's 1686 land patent, I am connecting the broader strokes of the use of Huguenot identity in Huguenot-British relations to wider trends and administrative control of New Jersey via the British proprietorships that would have had the power to grant land to settlers like Durier. Joseph R Klett, 'Using the Records of the East and West Jersey Proprietors' (New Jersey State Archives, 2014).

23 Stanwood, *The Global Refuge*, pp. 84–85

their Empires without losing people'.[24] It is through these movements, of a religious minority, and of a colonising aspiring world power, that both white mulberries and my European ancestors entered North America. Despite the designs of various English reformists regarding seventeenth-century agriculture, silk never became a major commodity in colonial Virginia where tobacco and later wheat came to dominate.[25]

This failure of sericulture to take hold, along with the relative invisibility of white mulberries and sericulture, stands in sharp contrast to evidence that white mulberries were far from a failure in terms of spreading across North America. Copenheaver and colleagues, who conducted a review of writings of eighteenth-century naturalists, found that, a century after these silk-colonisation efforts, *Morus alba* registered as the fourth most frequently noted non-native plant in John Bartram's observations of farms and gardens in the Southeastern United States.[26] Silk's economic failure amid robust state and financial supports for sericulture by the British monarchy and colonisation companies point to the indeterminate[27] nature of early Anglo-American empire. Aspiring profiteers cast nets wildly across all sorts of existing agricultural and husbandry traditions and experimented with potentially productive technologies, many of which (like silk) never took a real hold in North America. The history of US nation and empire is now often told in terms of destiny and fate, but the view via mulberries and silk shows England as an insecure power with imperial ambitions multiply invested in efforts to promote crops that now 'rarely register in the region's history'.[28]

24 Ibid, *The Global Refuge*, p. 4.

25 For a more detailed explanation of shifts in practices and crop combinations in the Virginia Chesapeake and Piedmont during this time period, see Philip D Curtin, Grace Somers Brush and George Wescott Fisher, *Discovering the Chesapeake: The History of an Ecosystem* (Baltimore, Md: Johns Hopkins University Press, 2001); Morgan, *Slave Counterpoint: Black Culture in the Eighteenth-Century Chesapeake and Lowcountry*.

26 Carolyn A. Copenheaver et al., 'Non-native plants observed in North America by 18 th century naturalists', *Écoscience* **30** (1) (2023): 39–51, 46-47.

27 Katherine McKittrick, *Demonic Grounds: Black Women and the Cartographies of Struggle* (Minneapolis: University of Minnesota Press, 2006).

28 Marsh here is speaking about the Carolina colony, but the same could be said of silk culture more broadly across the historiography of the US. Ben Marsh, 'Silk Hopes in Colonial South Carolina', *Journal of Southern History* **78** (4) (2012): 807–54, at 808.

EIGHTEENTH AND NINETEENTH CENTURIES: MONOCULTURE, PLANTATIONS AND NURSERIES

With the rise of large-scale field-based commodity agriculture in tobacco and wheat in seventeenth- and eighteenth-century Virginia, mulberries largely recede from view. But two threads, the rise of planterly attitudes towards the management of agro-ecologies within systems of chattel slavery and the continued import of exotic plans through the emerging nursery industry, come into focus during this time, and provide key antecedents to the continued formations of categories of racialised peoples and invasive plants.

While mulberries continued their quiet spread in the eighteenth and nineteenth centuries, the bulk of agricultural literature turned its attention to management of the plantation economy in Virginia, based in tobacco, wheat and associated animal husbandry. By the mid-nineteenth century, planters organised into agricultural societies that shared knowledge on 'scientific' farming practices that they published in periodicals, and lobbied lawmakers for legislation that supported agriculturalists.[29]

In periodicals like the Richmond-based *Southern Planter*,[30] plantation masters described their farm systems as coordinated racialising assemblages,[31] where the bifurcations of the human world in the white/Black racial order of chattel slavery were accompanied by a friend/enemy bifurcation of extra-human actors that played out in everyday farm management. Planters saw their farms as a collection of tiny wars, and their magazines show the primary management tactics with respect to productive life centred on the mirrored actions of *care through war*. Proper 'care' of the land involved the eradication and destruction of

29 In Virginia, local organisations like Albemarle County's Hole & Corner Club proliferated and, by the 1850s, these groups organised into a State level agricultural society. Charles W. Turner, *Virginia's Green Revolution* (Wayneboro: The Humphries Press, Inc, 1986).

30 The *Southern Planter* of Richmond is one of the perodicals published regularly in closest proximity to Charlottesville. The editor in the mid 19th Century, Frank G. Ruffin, was born near Charlottesville and returned to the area in the 1840s. Richmond is about 70 miles from Charlottesville/Albemarle County but well connected by waterways and roads, and later railroads and highways.

31 Alexander G. Weheliye, *Habeas Viscus: Racializing Assemblages, Biopolitics, and Black Feminist Theories of the Human* (Durham: Duke University Press, 2014).

unwanted pests, weeds, water and any other environmental factor detrimental to the single-minded production of monocultural fields of staple crops. In this paradigm, human and non-human actors in the landscape could only be legible through their relationships to maximising yields and profits, neatly sorted into categories of beneficial and harmful.

One article entitled 'Another enemy to the wheat crop' expounds on these relationships with respect to known and unknown insects:

> our farmers have all the *plagues of Egypt* upon them at once. Their corn crop is injured by the *cut and bore worm,* the wheat by *fly, joint worm,* and this **stranger**, who has found 'local habitation,' but is still without a 'name'… This is a *wormey* age we live in, and we know of **nothing better for a man to do than carry about with him a bottle of *M Lane's Vermifuge* to** protect himself against the *prevailing epidemic.*[32]

In this passage (and many others), weeds, pests and diseases were metaphorically described as enemies to be identified, isolated and destroyed with the newest technologies on the market. The mention of M Lane's Vermifuge, then a heavily advertised [33] human anti-intestinal worm tonic, shows the direct correlation of human health and commodity crop health in the minds of plantation agriculturalists.

Relationships to plants were also couched in war-like terms. One planter writes to the editor about the application of lime as an early herbicide: '… I looked confidently for this effect, viz: the *annihilation of broomstraw* [a weedy native grass], but, as I said before, I was disappointed- the field, in another year, put up as thick a growth as ever.'[34] Planterly imaginaries continually boxed relations between people and non-human actors into two categories: 'friend,' to be tended by fertiliser inputs and encouragement, or 'enemy,' marked for targeted elimination through weeding, poisons or other forms of death.

While this over-riding structure of bifurcation was constant, specific creatures often slipped back and forth between categories of beneficial and reviled. For example, one article discussed evolving proper planter attitudes towards red-winged blackbirds:

32 Italicised emphasis in original, bold emphasis by author. 'Another enemy to the wheat crop', *The Southern Planter*, Aug. 1853.

33 'A most extraordinary cure effected by M'LANE'S CELEBRATED VERMIFUGE', *Boston Pilot*, 25 Aug. 1855.

34 Emphasis added by author. G.F.H, 'Lime', *The Southern Planter*, Aug. 1853, 243.

> **Red-winged Blackbird** … has long been known to farmers as a **sad thief** … are great devourers of the Indian corn [but…] grub-worms, caterpillars, and various other larva- the **silent but deadly enemies of all vegetation**, and whose **secret and insidious attacks** are more to be dreaded by the husbandman than the **combined forces of the whole feathered tribes** together … If we suppose each bird on an average to **devour fifty of these larva in a day** … I cannot resist the belief that the **services of this species, in spring, are far more important** and beneficial than the value of all that portion of corn which a careful and active farmer permits himself to lose by it … we may justly claim for them the **exemptions from the cruel assaults** of idle gunners, [and] truant schoolboys.[35]

Here, the formerly 'proper' actions towards red-wing blackbirds were to kill them (with idle gunners, truant school boys, etc.), but the writer argues for moving these birds into the protected category of beneficial animals given their consumption of creatures (like worms and caterpillars) that were the *true* pests. Crop and livestock species' value and worthiness for care was never in question, but all other human and non-human relations were understood in relationship to the desired products and dealt with via blunt choice between the logics of assimilation or annihilation. Metaphors also slipped between human and non-human worlds, personifying birds as thieves, tribes and servicers of corn.

Among people, the logic of class, and planter efforts to build white solidarity against the enslaved also functioned through the logic of care through war. Edmund Ruffin, editor of the well-circulated *Farmer's Register*, in an address to the Virginia Agricultural Society spoke on the power dynamics of slave vs free labour:

> This is the condition from which **we are saved**, and immeasurably exalted, **by the subjection and slavery of an inferior race**. **The superior race here is free**. In the so-called free countries, **the far greater number of the superior race is, in effect enslaved and thereby degraded** to a condition suitable only for a race made inferior by nature … In the so-called free countries … there is the slavery of class to class- of the starving laborers to the paying employers.[36]

In Ruffin's rhetoric, there was no question that some category of humanity would be abused to drive the productivity of the plantation system. The only alternative to enslaving a 'naturally inferior' race of

35 Emphasis added by author. 'Red-Winged blackbird', *The Southern Planter*, Sept. 1853: 281–82.

36 Edmund Ruffin and Willoughby Newton, 'Supplement to *the Southern Planter*', *The Southern Planter*, Supplement to the Southern Planter (Dec. 1853): 1–16, 12–13.

Black labourers who 'deserved' enslavement was the 'unjust' enslavement of white labour. Planters trumpeted this threat of racial displacement of abuse onto white men as the ultimate spectre of free labour regimes, attempting to draw a whole cadre of recently enfranchised propertyless white men into alignment with planter elites.[37] The message to the white underclass living alongside the planter elite was, sustain the enslavers, or be enslaved themselves. Care for the systems of slavery or become the class whose lives are expropriated. As an inverse of the red-wing blackbird's transition from foe to friend, human categories, too, could be placed under threat of change from protected 'friend' to enslaved 'foe': a reformulation of the same logics of systems requiring included and excluded categories.

While planters maintained crop monocultures to maximise productivity, display gardens of the plantation class showed prestige through the procurement and display of rare and unusual plants. Planters experimented with scientific farming practices like those outlined above, but also worked with the emerging nursery industry in northeastern port cities to elaborate a style of American landscape gardening that would rival gardening traditions in Europe.[38] Charlottesville planters like Thomas Jefferson corresponded and traded with early nurserymen like William Hamilton of Philadelphia, and William Prince in Flushing, Long Island,[39] and experimented with plants that originated across Europe and Asia.[40]

It was this network of plant procurement and sale that brought a second wave of *Morus alba* plants to Virginia. Prince's nursery[41] and others

37 Nell Irvin Painter locates what she calls the 'first enlargement of American whiteness' in the early 19th century, when non-property holding white men were granted the right to vote. Ruffin's direct engagement with the potential white working class indicates that he does to some extent need to appeal to a wider audience who was not slave-owning. Painter, *The History of White People*.

38 The same issues of *Southern Planter* that outlined agricultural practices of planters also had repeating advertisements for booksellers in Richmond who sold tomes by American landscape gardeners like A.J. Downing and others. One example: 'To agriculturalists', *The Southern Planter*, Jan. 1853.

39 Peter Del Tredici, 'The introduction of Japanese plants into North America', *The Botanical Review* **83** (3) (Sept. 2017): 215–52, at 216.

40 Peter Hatch, *The Gardens of Thomas Jefferson's Monticello* (Charlottesville, VA: The Thomas Jefferson Foundation, 2001).

41 Del Tredici, 'The introduction of Japanese plants', 216.

in Baltimore and Connecticut invested heavily in a wave of speculative excitement about *Morus alba* var. multicaulis, a 'tree raised in China for silk culture … introduced into France by way of the Philippines'.[42] Nurserymen sold the tree as a botanical *wunderkind*, purported to have a shrub-like multi-stemmed form and rapid growth that would support a robust sericulture in the Americas. An eruption of interest in silk-culture followed, with the organisation of state silk societies and the first national silk convention held in Baltimore in 1838, and various periodicals and farmer's manuals exchanging information on mass multicaulis cultivation and silk culture.[43]

Near Charlottesville, the craze manifested on at least two sites: Morea near the University of Virginia, and Monticello, the former home of Thomas Jefferson. In 1834, Irishman and University Professor John Patten Emmet, built his estate on a 106 acre farm at the height of the multicaulis craze, and named it Morea in honour of the plant's role as the 'silkworm's principal diet'.[44] Emmet 'succeeded fully, through his own ingenuity, in making sewing-silk of the best quality', using silkworms fed on his multicaulis trees until his silk-making operation was destroyed in a fire. Later, he turned to grape growing and finding economic uses for a vein of kaolin clay he found on his land.[45] Contemporaneously, a local man, James Barclay, bought Thomas Jefferson's estate at auction for $7,500 'for a scheme that would turn Monticello into a silkworm farm. In order to plant mulberry trees, Barclay tore out many of the trees Jefferson had planted and uprooted the extensive gardens.'[46] He sold the farm three years later at a dramatic loss.

Like other multicaulis speculators, both Emmet and Clay ultimately failed in their attempts to make mulberry cultivation and silk culture

42 Matsui, 'The history of the silk Industry in the United States: Chapter III', 71.

43 Ibid., p. 71.

44 Virginia Historic Landmark Commission Staff, 'National Register of Historic Places Inventory- Nomination Form: Morea' (United States Department of Interior-National Park Service, 1983).

45 Thomas Addis Emmet, *A Memoir of John Patten Emmet, M.D: Formerly Professor of Chemistry and Materia Medica in the University of Virginia : With a Brief Outline of the Emmet Family History* (New York: Privately Printed, 1898), p. 40.

46 Melvin Urofski, 'Sale of Monticello | Thomas Jefferson's Monticello', T.H. Jefferson Research and Education: Thomas Jefferson Encyclopedia, 2001: https://www.monticello.org/research-education/thomas-jefferson-encyclopedia/sale-monticello/.

profitable, but Emmet's biography in particular illustrates the movement of a racialised group in Europe to the position of planter and/or coloniser in North America, ultimately becoming enfolded into the category of whiteness in the US. Emmet, born in Ireland and nephew of a prominent Irish nationalist, would have been part of the Irish influx to the US, hailing from a region that had been colonised by the Tudor England contemporaneously with Virginia's Jamestown, and then forcibly settled by the Stuarts with Protestant planters from Scotland.[47] Ignatiev observes that, by the mid-nineteenth century, Irish transplants to the States were increasingly casting off their racialisation, but while 'white skin made the Irish eligible for membership in the white race, it did not guarantee their admission; they had to earn it'.[48] Emmet's taking up of 'aristocratic' Virginian practices, like using enslaved labourers,[49] and his entry to the faculty[50] at the University of Virginia reflect his position as part of the leading edge of the Irish's improving status and growing power in larger political alliances in national politics that tied 'the assimilation of the Irish into the white race [that] made it possible to maintain slavery'.[51]

In general, the multicaulis craze was another in the line of silk's economic failures in the US, as by 1840, it became clear that the *Morus alba* var. multicaulis was not hardy in the North, and nor did agriculturalists in the US have the capacity for the seasonal nature and painstaking processes of worm-rearing to transform leaves into silk. Like England before it, 'having failed in the raising of cocoons, the American silk merchant turned his exclusive attention to manufacturing'.[52]

47 Robinson, *Black Marxism*, pp. 36–38.

48 Noel Ignatiev, *How the Irish Became White* (New York: Routledge, 2009), p. 70.

49 Gayle M. Schulman, 'Slaves at the University of Virginia', Unpublished (African American Genealogy Group of Charlottesville/Albemarle, May 2003).

50 Thomas Jefferson appointed him to the faculty in 1825.

51 Ignatiev, *How the Irish Became White*, p. 81.

52 Matsui, 'The history of the silk industry in the United States: Chapter III', 67–77.

TURN OF THE CENTURY: INDUSTRIAL SILK, 'FOREIGN' PESTS AND EMPIRES

It is also the in mid-nineteenth century that the history of my Japanese family collides directly with the racial and economic story of the United States. On my father's side, the family's already considerable wealth exploded with my third great-grandfather, Jokichi Ujie, who positioned himself to sell silk eggs to Westerners[53] after Commodore Perry's forcible 'opening'[54] of Japan by gunboat diplomacy in 1853. My third great grandfather's silk egg operation sold 'seeds of silkworms to foreigners in Yokohama … made a big profit. His workers put silkworm seeds in carts and carried them from Kakuda to Yokohama by horse.'[55] My ancestors happened to ride a rapid boom in the Japanese silk egg industry. This boom was a result of twin supply crises that were crippling the European silk industries in France and Italy: pebrine (*Nosema bombycis*), a silkworm-killing fungal disease spread on mulberry leaves,[56] and the Taiping Rebellion in China that disrupted Asian raw silk production and cut the European supply to pebrine-free silkworm eggs.[57] These two disruptions meant that 'Japan became the sole supplier of the whole Mediterranean sericulture'[58] for a brief moment in the mid to late 1860s, taking my family to a level of wealth that wasn't whittled away until my lifetime. Carl Wilhelm Von Nageli's identification of the pathogen and Louis Pasteur's findings on pebrine-prevention worm cultivation

53 'The Life of Jokichi Ujie, A Big Landowner' (Kakuda Homeland History Museum, unknown date).

54 Between the 1630s and 1854, the shogunate in Japan had ruled over a 'sasoku' or closed country policy to allow it to monopolise trade with the Chinese and Dutch. Yasuhiro Makimura, *Yokohama and the Silk Trade: How Eastern Japan Became the Primary Economic Region of Japan, 1843–1893* (Lanham: Lexington Books, 2017), p. xv.

55 Unknown, 'The Life of Jokichi U---'.

56 The pebrine outbreak crippled the French and Italian sericultural regions by 1865. Fernando E. Vega, Harry K. Kaya and Yoshinori Tanada, *Insect Pathology*, 2nd ed. (Amsterdam: Elsevier/Academic Press, 2012).

57 Giovanni Federico, *An Economic History of the Silk Industry, 1830–1930* (Cambridge, New York: Cambridge University Press, 1997), p. 36.

58 Ibid, p. 38.

methods led to a recovery in European silk culture,[59] and a collapse in the Japanese silk egg industry by 1875.[60] Japanese sericulturists 'turned their attention from the production of silk eggs to this new field of raw silk production for American markets'.[61] Japan and the US quickly developed a robust bilateral trading relationship, wherein raw silk dominated Japanese exports from 1870 to a peak in 1925.[62] These exports supplied a burgeoning US silk manufacturing industry, centred primarily in Paterson, New Jersey and, later, eastern Pennsylvania.[63] Shichiro Matsui notes that the late-nineteenth century silk boom in the US was due to national and global factors. The levying of silk duties on imports to the US during the Civil War spurred domestic production, the opening of inter-Pacific shipping in 1867 and the completion of the Transcontinental railroad in 1869 provided a path for importing Japanese silk to the East Coast, and the Franco-German war of 1870 slowed production of silk in Europe, opening a window for profitable domestic silk manufacture in the US.[64]

In Virginia, silk factories emerged during this era and, while they barely register in broader histories of the American silk industry,[65] silk factories are a major player in the story of the land development in Charlottesville. Local capitalists, looking to expand production from a mill that had processed local wool into fabric since before the Civil War, expanded into silk fibres by erecting the Armstrong Silk Knitting factory just north of downtown, and operated there until the cusp of World War II.[66] In 1928, New Jersey silk manufacturers Frank Ix and

59 Lisa A. Onaga, 'Bombyx and bugs in Meiji Japan: Toward a multispecies history?' *Scholar & Feminist Online* **11** (3) (2013).

60 Matsui describes the burning of 450,000 egg cards that failed to export to France at Yokohama harbour that year, amounting to a loss of over 85,000 Yen. Matsui, 'The history of the silk industry in the United States: Chapters I and II', p. 74.

61 Ibid., 75.

62 Makimura, *Yokohama and the Silk Trade*, p. xiii.

63 Shichiro Matsui, 'The history of the silk industry in the United States: Chapter IV', *Silk*, Dec. 1927: 73–44.

64 Ibid.

65 Matsui notes that by the 1920s, Virginia was only the 7th state in the nation in terms of silk production, and that the industry was mostly still centred in New Jersey and Pennsylvania. Ibid, 77.

66 D. Edwan, 'Armstrong Knitting Factory VDHR Property Survey Form VDHR File 104-0242' (Virginia Department of Historical Resources, n.d.).

Sons opened a silk mill on a large site on the south side of town,[67] which became one of the city's biggest employers before its closure in 1999.

The combination of urban industrialisation and continued plantation-like agrarian practices produced both denser human settlement around Charlottesville, and a widely deforested agricultural landscape in the surrounding areas (Figure 1). By the early-twentieth century, the agricultural lands around Charlottesville produced commoditised field crops, orchard products and livestock for meat, dairy, fibre and horseracing. In a landscape that had historically tended to produce a forested ecology,[68] this management regime produced tilled and disturbed nutrient-rich soils that provided many opportunities for weedy plants to thrive. Large-scale monocultural plant stands in orchards and fields provided a haven for plant diseases and pests. At the same time, nursery traders expanded to serve the growing local ornamental market in suburban gardens, as more local nursery growers sprang up to supply exotic (often Asian) plants to local home gardeners (Figure 2).[69] Many of the plants noted as of Japanese origin shown in the nursery catalogue pages in Figure 2, including barberry, honeysuckle, kudzu, mahonia, nandina and privet, are considered invasive in the region today.

Meanwhile in Japan, economic and military power built on silk exports positioned the nation to become a dominant power in the region with Western backing. Japan was an early adopter of multicultural and neoliberal forms of racial capitalism, hiding and disavowing its own colonial brutalities and violences under the umbrella of Greater East Asia Co-Prosperity Sphere. It was under this banner of 'co-prosperity' that

67 Dan Heuchert, 'Bankrupt local firms provide gold mine for social, labor historians', *Inside UVA*, 28 Jan. 2000.

68 Michael A. Godfrey, *Field Guide to the Piedmont: The Natural Habitats of America's Most Lived-in Region, from New York City to Montgomery, Alabama* (Chapel Hill: The University of North Carolina Press, 2012).

69 Examples include William A. Lankford who bought 30 acres of land adjacent to what would eventually become the IX silk complex in the 1920s. Between 1902 and his death in 1922, he 'developed one of the best known and largest wholesale green house and growing enterprises in the state. Besides catering to a large and increasing patronage in cut flowers and pot plants, he specialized in raising irises, peonies, and gladioli for the southern and northern wholesale markets, many acres being devoted to the culture of these plants.' 'William A. Lankford', *The American Florist*, 4 Feb. 1922. Valley View Nursery also operated in the northern portion of town in the 1930s, and pages from its catalogue are shown in the figure.

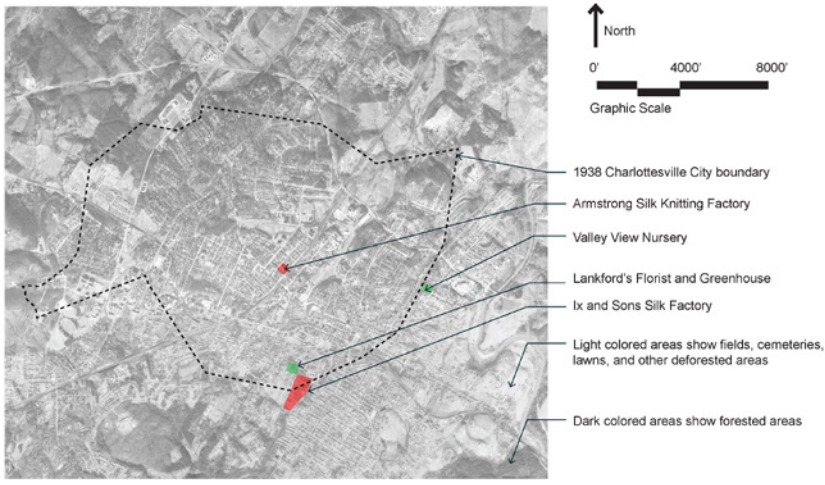
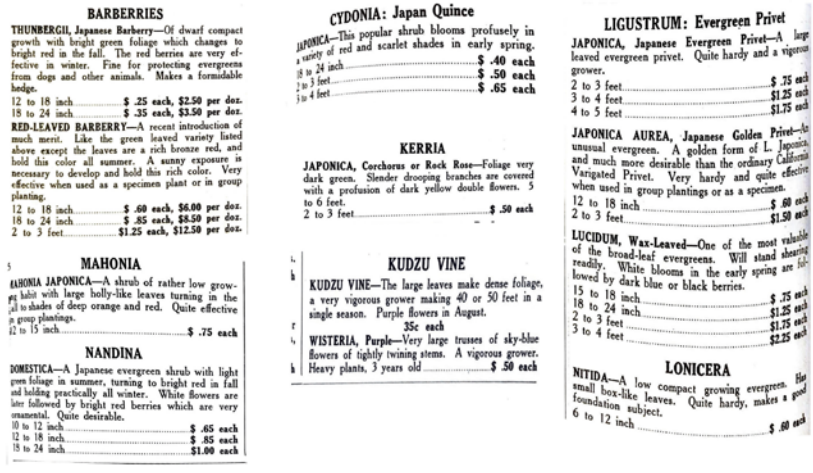


FIGURE 1.

Mid-century Charlottesville composite map.
Sources: 1959 USGS aerial photographs of Charlottesville Area and city directories. Overlay map created by author.



BARBERRIES

THUNBERGII, Japanese Barberry—Of dwarf compact growth with bright green foliage which changes to bright red in the fall. The red berries are very effective in winter. Fine for protecting evergreens from dogs and other animals. Makes a formidable hedge.
12 to 18 inch ..... $ .25 each, $2.50 per doz.
18 to 24 inch ..... $ .35 each, $3.50 per doz.

RED-LEAVED BARBERRY—A recent introduction of much merit. Like the green leaved variety listed above except the leaves are a rich bronze red, and hold this color all summer. A sunny exposure is necessary to develop and hold this rich color. Very effective when used as a specimen plant or in group planting.
12 to 18 inch ..... $ .60 each, $6.00 per doz.
18 to 24 inch ..... $ .85 each, $8.50 per doz.
2 to 3 feet ..... $1.25 each, $12.50 per doz.

MAHONIA

MAHONIA JAPONICA—A shrub of rather low growing habit with large holly-like leaves turning in the fall to shades of deep orange and red. Quite effective in group plantings.
12 to 15 inch ..... $ .75 each

NANDINA

DOMESTICA—A Japanese evergreen shrub with light green foliage in summer, turning to bright red in fall and holding practically all winter. White flowers are later followed by bright red berries which are very ornamental. Quite desirable.
10 to 12 inch ..... $ .65 each
12 to 18 inch ..... $ .85 each
18 to 24 inch ..... $1.00 each

CYDONIA: Japan Quince

JAPONICA—This popular shrub blooms profusely in a variety of red and scarlet shades in early spring.
18 to 24 inch ..... $ .40 each
2 to 3 feet ..... $ .50 each
3 to 4 feet ..... $ .65 each

KERRIA

JAPONICA, Corchorus or Rock Rose—Foliage very dark green. Slender drooping branches are covered with a profusion of dark yellow double flowers. 5 to 6 feet.
2 to 3 feet ..... $ .50 each

KUDZU VINE

KUDZU VINE—The large leaves make dense foliage, a very vigorous grower making 40 or 50 feet in a single season. Purple flowers in August.
35c each

WISTERIA, Purple—Very large trusses of sky-blue flowers of tightly twining stems. A vigorous grower. Heavy plants, 3 years old ..... $ .50 each

LIGUSTRUM: Evergreen Privet

JAPONICA, Japanese Evergreen Privet—A large leaved evergreen privet. Quite hardy and a vigorous grower.
2 to 3 feet ..... $ .75 each
3 to 4 feet ..... $1.25 each
4 to 5 feet ..... $1.75 each

JAPONICA AUREA, Japanese Golden Privet—An unusual evergreen. A golden form of L. Japonica, and much more desirable than the ordinary California Varigated Privet. Very hardy and quite effective when used in group plantings or as a specimen.
12 to 18 inch ..... $ .60 each
2 to 3 feet ..... $1.50 each

LUCIDUM, Wax-Leaved—One of the most valuable of the broad-leaf evergreens. Will stand shearing readily. White blooms in the early spring are followed by dark blue or black berries.
15 to 18 inch ..... $ .75 each
18 to 24 inch ..... $1.25 each
2 to 3 feet ..... $1.75 each
3 to 4 feet ..... $2.25 each

LONICERA

NITIDA—A low compact growing evergreen. Has small box-like leaves. Quite hardy, makes a good foundation subject.
6 to 12 inch ..... $ .60 each

FIGURE 2.

Charlottesville's Valley View Nursery catalogue excerpts – Japanese and other Asian ornamental plants, most shown here are considered 'invasive' in the present day.
Sources: 1932 Valley View Greenhouse Catalog (held at University of Virginia Special Collections Library).

Japanese imperialists before World War II claimed they were 'freeing' colonised nations from Western influence, and 'civilising' 'backward' nations and remaking them in the image of the Asian 'superior' Yamato Race.

In this context of heightened trans-Pacific trading and exchange, and the growing imperial aspirations of both the US and Japan, agricultural systems became a setting where a host of players elaborated the connected sciences and ideologies of monoculture agriculture, pest control and racialisation. Approaches from plantation agricultures of Virginia flowed into the stream of nationalised US agricultural institutions and policies through the formation of the United States Department of Agriculture and the 1862 Morrill Land Grant Act, which laid the institutional groundwork for land grant colleges, agricultural extension agencies and state experiment stations. Lyman Carrier shows that southern antebellum state agricultural societies, including Virginia's, were major proponents of these two federal structures, and that the USDA was in many ways a functional successor to those state-level networks.[70] Some early officials of these agencies hailed from Virginia, and would have carried ideologies about the necessity of crop monocultures, racist social frameworks and desires for extermination of their environmental enemies into the dominant industrial agricultural practices of the US.[71] In relation to the Western US, Jeannie Shinozuka highlights the expansion of field crops and orchard monocultures into California's Central Valley and other major agricultural regions of the American West,

70 Lyman Carrier, 'The United States Agricultural Society, 1852–1860: Its relation to the origin of the United States Department of Agriculture and the Land Grant Colleges', *Agricultural History* **11** (4) (1937): 278–88.

71 An early example of such a southern player was William B. Allwood, who directed the agricultural experiment station in Virginia in 1888, and was a horticulturalist and entomologist. He wrote numerous articles in Richmond's *Southern Planter* about methods for applying insecticides and fungicides and ways of controlling fungal diseases through the extermination zones for host trees, and advised decisionmakers on state and federal level legislation to establish quarantines and elimination regimes for new crop-threatening creatures as they emerged in the late 19th and early 20th centuries. His close working relationships with officials at the USDA would have been both a conduit for Virginian ideas to permeate the broader discussion of national policy, and a path for West Coast anti-Asian pest ideologies described by Shinuzoka to be transmitted to Virginia. Curtis W. Roane, 'A history of plant pathology in Virginia (1888–1897)', University Archives of Virginia Tech, 23 Sept. 2004: https://vtechworks.lib.vt.edu/server/api/core/bitstreams/1a880b72-b0f0-4c14-ade5-ac9455350c4f/content.

which interacted with a now-robust nursery trade that nurtured and spread plant pests alongside horticultural stock across the world. She argues that the expansion of crop monocultures, white racist and nativist attitudes toward Japanese and other East Asian immigrants, and the explosion of novel insect, fungal and bacterial pathogens encouraged by monocultural stands of vulnerable plants brewed a regulatory culture in the USDA that associated non-human pests with human racial groups including the Japanese and Latinx populations.[72] She describes the racialisation of various biotic pests like the San Jose scale, chestnut blight, citrus canker and Japanese beetle, which often had geographically unclear origins[73] as 'Oriental', arguing that agricultural pest management was a major venue where 'environmental enemies' of crop pests were associated with Asian-ness. And, through the networks of nurseries that spanned the East and West coasts, San Jose scale, one of the first insects to produce a concerted response from the USDA in California where it had been known since the 1870s, 'appeared in Charlottesville, Virginia, in 1893, threatening all orchards in the East'.[74] Racial logics of confinement and annihilation spilled over between human and insect, consolidating an over-arching narrative of biotic and human 'yellow peril' that drove the rise of both plant quarantine and control laws,[75] and human immigration control laws[76] of the early-twentieth century.

72 Jeannie Natsuko Shinozuka, *Biotic Borders: Transpacific Plant and Insect Migration and the Rise of Anti-Asian Racism in America, 1890–1950* (Chicago: The University of Chicago Press, 2022).

73 Shinozuka explains the contention over the San Jose scale in the 1890s as an example – scientists quarreled over whether the pest originated in the US, in China or Japan, but the racialisation of the pest as Asian persisted in discourse, despite the indeterminate origins of the creature. Ibid.

74 Ibid., p. 20.

75 Major federal laws included the 1905 Insect Pest Act, Plant Quarantine of 1912, the Plant Quarantine 37 (PQN37) of 1919. In Virginia, major early state laws were the 1899 Crop Pest Law and an 1896 law to address the fact that the 'fruit industry in Virginia is threatened with serious and irreparable damage by an insect known as the San Jose, or pernicious scale'. Wm. B Alwood, 'Legislation for the suppression of the San Jose Scale in Virginia', *Southern Planter* **59** (5) (1888): 238–240, at 238.

76 Major federal laws included the 1875 Page Act, the 1882 Chinese Exclusion Act, the Gentlemen's Agreement of 1907, the Asiatic Barred Zone/Immigration Act of 1917, and the 1924 National Origins Act.

At the same time as doors closed on Asian immigration to the US, doors were opening to European-descended American ethnic populations in the late-nineteenth century, in a wave that Nell Painter calls the second enlargement of American whiteness.[77] Silk and other industries provided one road to wealth that my European descendants rode, claiming stable industrial jobs through much of the twentieth century. Two of my distant European immigrant cousins were men who married Durie women, and held long careers in silk work in New Jersey and New York.[78] Another path to white wealth was through seizure of land from Indigenous people. My second great grandfather Durie married a Scots-Irish woman from Maryland, and they claimed land in what had recently been Indian territory in the Oklahoma land rush in the late-nineteenth century.[79] Much as Jean Durier came to the New Jersey colony as a religious refugee and potentially productive tool of English empire, my second great grandmother came from people displaced and re-placed in various English land grabs. In the seventeenth century, the crown recruited "'surplussed" Scots tenants and cottagers' to English-colonised Ireland as 'the main bulwark of social control over the dispossessed native Irish chiefs and lords and their tribes',[80] and then again to the American colonies to inhabit the Indigenous lands west of the Appalachian Mountains.[81]

By the late-nineteenth century, my European ethnic ancestors were building social and economic power and 'improving' their position in American racial projects.[82] As they landed industrial jobs and stolen lands, acquisitions that were largely barred to other racial and ethnic groups, they began taking up Anglo-American practices of genealogy

77 Painter, *The History of White People*.

78 Howard Ira Durie, *The Durie Family* (Pomona, NY: Howard Ira Durie, 1985), pp. 185, 233.

79 My great Aunt Pat insists they 'made a claim in the Oklahoma Land Rush, though they were not 'Sooners'. Pat Durie, 'Dear Debbie', 12 June 2007..

80 Theodore Allen, *The Invention of the White Race*, Second edition (London ; New York: Verso, 2012), p. 120–121.

81 Colin Woodard, *American Nations: A History of the Eleven Rival Regional Cultures of North America*, A Penguin Book History (New York, NY: Penguin Books, 2012), p. 102.

82 Michael Omi and Howard Winant, *Racial Formation in the United States: From the 1960s to the 1990s*, 2nd ed (New York: Routledge, 1994).

and organising along lines of descent. Francesca Morgan makes the connection between origins of hereditary organisations like these and anti-Asian xenophobia: 'In the 1870s, San Francisco was simultaneously a seedbed of hereditary organizations ... and of mass demonstrations for Chinese exclusion'.[83] The formation of Huguenot (1883),[84] New Holland (1885)[85] and Scotch Irish (1889)[86] societies nationally, accompanied a new proliferation of American-European ethnic history texts.[87] Through these texts and societies, 'ethnic' European groups claimed narratives of 'firsting' by showing that the Huguenots and Scotch Irish were integral to the colonisation of the United States.[88] This revisionist history wrote white ethnics into the origin stories of the nation, and refuted Native American claims to land by picturing their extinction in the contemporary US.

MID-TWENTIETH CENTURY: WAR, CHEMICALS, RACISM AND INVASIVES

World War II heightened both the racialising rhetoric of war as care and the technological capabilities of this type of world-making in the US. In 1941, chemist R. Pokorny reported the synthesis of a new compound,

83 Francesca Morgan, *A Nation of Descendants: Politics and the Practice of Genealogy in U.S. History* (Chapel Hill: University of North Carolina Press, 2021), p. 41.

84 'The Huguenot Society of America', 2023: https://www.huguenotsocietyofamerica.org/.

85 'About – The Holland Society of New York', https://hollandsociety.org/about/ (accessed 10 Jan. 2024). The Durie surname is one of many that can be used to gain membership to the society.

86 '1889 – The Scotch-Irish Society of America', Discover Ulster Scots, https://discoverulsterscots.com/emigration-influence/america/scotch-irish-america-timeline/1889-scotch-irish-society-america '(accessed 17 Jan. 2024).'.

87 Examples include in Virginia, H.H Trout, 'The "Scotch-Irish" of the Valley of Virginia, and their influence on medical progress in America', *Annals of Medical History* **10** (1) (1938): 71–82. And, in my family, the Durie name and 17th century homestead in New Jersey appear in a tome on colonial Dutch homes, a book with an introduction by then President, Franklin Delano Roosevelt: Rosalie Fellows Bailey, *Pre-Revolutionary Dutch Houses and Families in Northern New Jersey and Southern New York* (New York: William Morrow and Company, 1936).

88 Jean Maria O'Brien, *Firsting and Lasting: Writing Indians out of Existence in New England*, (Minneapolis: University of Minnesota Press, 2010).

2,4-Dichlorophenoxyacetic acid, better known as 2,4-D in the *Journal of the American Chemical Society*. Plant scientists at the University of Chicago and USDA Plant Industry Station in Beltsville, MD, turned their agriculturally-focused testing of herbicides to military uses for the war effort in the early 1940s. By November 1942, the Army established Camp Detrick, in Frederick, Maryland as a 'research and testing centre for the recently initiated biological warfare program [… and made] herbicide research part of the work at Camp Detrick'.[89] By 1944, extensive military tests of various chemicals as herbicides began to home in on 2,4-D as a compound that selectively killed many broad-leafed weeds in agricultural and lawn settings.[90] Agricultural applications of herbicide tests were not held secret like military applications of chemicals, and, by 1945, chemical companies were selling 2,4-D to American consumers, first as American Chemical and Paint Company's (ACPC) brand 'Weedone.' Production of 2,4-D exploded, from 917,000 pounds produced in 1950, to 53 million pounds by 1964.[91] 2,4-D 'started weed research on its way as a full-fledged new science … all types of scientists … jumped into the whirlpool of activity engaged in trying to learn more about this magic new chemical weed killer and about the whole field of new herbicides opened by this discovery'.[92] With this introduction of cheap herbicidal chemicals, weed control, which had 'remained a relatively minor phase of agronomy, botany, horticulture, agricultural engineering, and plant physiology',[93] exploded into the mainstream of these sciences. As one measure of the proliferation of interest in chemical herbicides, in 1943, only 69 articles in the USDA's bibliography of agriculture focused on weeds, while, by 1949, more than 600 concerned weed control.[94]

Virginians, according to the documentary record, joined the 'great popular interest in the herbicidal potential of 2,4-D'.[95] Advertisements in Virginia newspapers for ACPC's 'Weedone' weed killer marketed

89 Gale E. Peterson, 'The discovery and development of 2,4-D', *Agricultural History* **41** (3) (1967): 243–54, at 247.

90 Ibid., 248–51.

91 Ibid., 252.

92 F.L. Timmons, 'A history of weed control in the United States and Canada' *Weed Science* **53** (6) (2005): 748–61, at 755.

93 Ibid., p. 748.

94 Peterson, 'The discovery and development of 2,4-D', 252.

95 Ibid., 249.

FIGURE 3.

Virginia newspaper articles selling 'weedone' and other anti-pest chemicals.
Sources: from left to right and top to bottom, 'Orr Seed Co', *Norfolk Ledger-Dispatch*, 18 May 1945; 'Tait's Thorobred Seeds', *Norfolk-Ledger Dispatch,* 17 May 1945; 'We now have Weedone' *Waynesboro News-Virginia*, 13 July 1945.

2,4-D to gardeners during the war alongside existing insecticides and fungicides.[96] Wartime rhetoric expanded and reinforced logics of care through pest extermination to the lives of plants. (Figure 3)

Much as metaphors of care through the annihilation of various creatures slipped back and forth between tribe, army and non-human creatures in planter magazines from the 1850s, in wartime popular media, plants, pests, and racial categories of people folded together. In one example, Charlottesville's Monticello Dairy's monthly employee newsletter, the *Bovine Bugle,* released cover art in February 1945 that depicted their bovine mascot dousing two anthropomorphised weeds described as 'Nazis' and 'J*ps' with 'pest killer'. (Figure 4)

96 Examples include 'Kill poison ivy', *The Bee*, 13 July 1945; 'Orr Seed Co.', *Norfolk Ledger-Dispatch*, 18 May 1945; 'Tait's Thorobred Seeds', *Norfolk-Ledger Dispatch*, 17 May 1945; Peterson, 'The discovery and development of 2,4-D'; 'We now have Weedone', *Waynesboro News-Virginia*, 13 July 1945.

FIGURE 4.
Cover of the *Bovine Bugle*, Feb. 1945.
Source: University of Virginia Special Collections.

FIGURE 5.

Japanese people, Japanese 'pests'.
Sources: left to right – Edward T. Grigware, 'Alaska-death-trap for the Jap', silkscreen on posterboards, Washington: WPA Art Project between 1941–43, Library of Congress Prints and Photographs Division, https://www.loc.gov/pictures/item/98510121/; 'War declared on Jap beetles', *The Norfolk Ledger Dispatch*, 14 June 1950; 'For Japanese beetles Japellent', *The News*, 22 July 1953.

While the German 'weed' was topped with Hitler's face, the cartoonist depicted the Japanese 'weed's' face-flower as a generic stereotypical Asian man, depicting the entire Asian racial category as 'weed'. This imagery of the Japanese pest requiring extermination lived on well after the war in advertisements in chemicals for extermination of Japanese beetles in gardens and agricultural lands.[97] (Figure 5)

These continuing messages about the 'foreign' threat of 'Asian' organisms helped supercharge the demand for existing herbicides, and myriad new herbicidal chemicals that entered the market in the second half of the twentieth century.[98] The capabilities of these chemicals also opened a window to the expansion of government regulation around the controlling the movement and requiring the eradication of 'for-

97 Shinozuka notes the proliferation of Japanese beetle killer advertisements on the East Coast in the run-up to World War II, but these advertisements lived on in Virginia into at least the 1950s. Shinozuka, *Biotic Borders,* pp. 154–55.

98 Timmons notes that by 1969, 120 herbicides were available for public use, and, by 1967, sales of herbicides reached 348 million pounds. Timmons, 'A history of weed control in the United States and Canada', p. 752.

eign' plants. Chemical companies previously in the business of wartime chemical fabrication pivoted to domestic uses in agriculture and land management and leveraged new federal policy to steer governmental and private land management toward pesticide use. While present-day messaging around 'exotic invasives' centres on the ecological impacts of weedy plants, the first federal legislation on controlling the movement and spread of weedy plants, the 1974 Noxious Weed Act, instead focused on losses to the agricultural industries due to weeds introduced to the US.[99] In mid-century, the rising mainstream environmental movement picked up these metaphors of foreign plant invaders to be eliminated,[100] popularising herbicide-based land management practices beyond the farm. By 1999, President Clinton signed Executive Order 13112 'to prevent the introduction of invasive species and provide for their control and to minimize the economic, ecological, and human health impacts that invasive species cause',[101] and created a coordinating body – the Invasive Species Council (NISC) – to oversee implementation of the order. The 2004 amendment to the Plant Protection Act of 2000 charged the federal government with establishing 'a program to provide financial and technical assistance to control or eradicate noxious weeds'.[102] Tao Orion notes that these policies embedded herbicide

99 One example of such language: 'most weeds presently in the United States and causing losses to American agriculture were originally of foreign origin'. J. Phil. Campbell, Acting Secretary of Department of Agriculture to Roy L. Ash, Director of Office of Management and Budget, 26 Dec. 1974, White House Records office, Legislation Case files at the Gerald R. Ford Presidential Library: https://www.fordlibrarymuseum.gov/library/document/0055/1668939.pdf

100 Elton's work is often noted as a first and influential tome on foreign plants as ecological threat. Charles S. Elton, *The Ecology of Invasions by Animals and Plants.* (London: Methuen, 1958).

101 William Jefferson Clinton, 'Executive Order 13122 of February 3, 1999, Invasive Species', *Federal Register* **64** (25) (8 Feb. 1999): 6183–87, https://www.govinfo.gov/content/pkg/FR-1999-02-08/pdf/99-3184.pdf. This order was further strengthened by a later amendment to order in 2016: Barack Hussein Obama, 'Executive Order – Safeguarding the Nation from the Impacts of Invasive Species' (The White House, Office of the Press Secretary, 5 Dec. 2016), https://obamawhitehouse.archives.gov/the-press-office/2016/12/05/executive-order-safeguarding-nation-impacts-invasive-species

102 An Act to require the Secretary of Agriculture to establish a program to provide assistance to eligible weed management entities to control or eradicate noxious weeds on public and private land, Public Law 108-412 (30 Oct. 2004): 2320–2324.

company interests in governmental systems for weed control by funding university research that explored chemical weed control, allowing individuals from the pesticide industry to sit on important national and state-level invasive plant councils that did long-term planning for weed eradication at various levels of government, and directly funding pesticide application. She also points out that herbicide company influence reaches beyond governmental systems, as industry representatives hold important advisory positions in large non-profit entities like the Nature Conservancy, steering their massive land management programmes towards increased pesticide use and company profitability.[103]

DRAWING LINES TO THE PRESENT

During my lifetime, my family's biggest wealth-building assets have been land and single family homes, including the one my partner and I bought in Charlottesville in 2009. In terms of the value of the land that I purchased, I can trace the passings of this land all the way back to the same English colonial projects that brought mulberries to Virginia and Huguenots to New Jersey. When I became a property owner, I joined the genealogy of property, which directly connects me through acquisition of this plot to the Euro-North American tradition of territorial expansion through violent seizure, and the holding and leveraging of land held at the household level for the exclusive use of the property owner. Looking back at this history of Euro-American land development and territorial expansion, I can understand how this particular 0.2-acre parcel's value has been negotiated, layered and elaborated through seizure of lands inhabited by Monacan people, [104] successive systems of chattel slavery, monocultural agricultural production, residential segregation and suburbanisation that expanded structures of wealth-building through

103 Tao Orion, *Beyond the War on Invasive Species: A Permaculture Approach to Ecosystem Restoration* (White River Junction, Vermont: Chelsea Green Publishing, 2015), pp. 16–22.

104 The King of England granted the parcel I owned to Nicholas Meriwether 1735. Hantman calls these early land grants part of a common pattern of early English planters stealing the best agricultural land in Central Virginia. Jeffrey L. Hantman, *Monacan Millennium: A Collaborative Archaeology and History of a Virginia Indian People* (Charlottesville: University of Virginia Press, 2018); Hillier, 'HABS No. Va-1022 Locust Grove Kitchen 810 Locust Ave Charlottesville Virginia', 1.

homeownership to a broader segment of the American populace. My neighbourhood is still called 'Locust Grove', after the plantation held by George Sinclair in the mid-nineteenth century. Land companies of the late-nineteenth century[105] and real estate agents today continue to mobilise the pastoralist overtones of its plantation past to signal its desirability. I can read my family history on mother's side as a process of the sedimentation of the layered constructions of whiteness through inheritance, and actively enforced spatial practices of racial boundary-making.

My mother was born in Rockport Missouri in 1952 to a middle-class family who saw themselves as white. As with many families living in Charlottesville's Locust Grove in the 1950s, my mother describes her upbringing, and her family's upward mobility evidenced by the family's move from a rental to owning their own home. Her parents were both teachers, with her father's credentials gained from GI bill funded education after World War II,[106] programmes that systematically and disproportionately benefitted white veterans, and excluded Black servicemen in education, home loans, and unemployment insurance.[107] My mother's paternal great-grandfather, as Sheriff of Grant City, served as an enforcer of racial-spatial rules in their small Missouri town. Other relatives informally patrolled the city as a sundown town:

> And Grant City ... your Grandfather used to emphasize this. When he was a kid, EVERYBODY. Everybody knew that places like Grant City were called sundown towns. That meant if you were in that town and people didn't know who you were, or you looked funny to them, you had to get your ass out of town by sundown, now they could take care of it themselves ... There was one Irish Catholic in the family who married my grandfather Clouse's sister. He was a very sweet man, but he was also extremely prejudiced, OK? ... And my uncle Ray who was an Irish Catholic and had become kind of part of the group...I remember him bragging about that kind of stuff. He had a gun and yeah. He'd

105 Lydia Mattice Brandt, 'National Register of Historic Places Registration Form for Martha Jefferson Historic District, Locust Grove Addition 104-5144' (Virginia Department of Historic Resources, 2011, 2008): https://www.dhr.virginia.gov/wp-content/uploads/2018/04/104-5144_Martha_Jefferson_HD_2008-2011_NR_Final.pdf.

106 Author interview with Deborah Ujie on 13 April 2020.

107 Hilary Herbold, 'Never a level playing field: Blacks and the GI Bill', *The Journal of Blacks in Higher Education* 6 (Winter 1994/1995): 104–08.

> say, yeah if there's somebody that comes through here, and we don't like him? We'll take care of that... [108]

This passage speaks to the dynamics of my family, where connections to older ethicised traditions like the mantle of a questionably ethnic 'Irishness' were actively cast off, and social networks reconstituted through racialising processes. The price of belonging became assimilating into the ranks of the enforcers who policed the colour line.

On my Japanese side, my third great-grandfather's early success in silk eggs positioned his sons and grandsons to become leaders in local industrial development[109] and politics. My second great-grandfather was the President of Kakuda Ice Manufacturer, CEO of Tohoku Ice Maker, and a major landlord. He sat on both town and city councils. My great Grandfather was an art collector, and local 'philanthropist' in the Kakuda area, and the family's main home is now a museum. These stories, while still out-of-focus and incomplete without further research in Japanese archives, eerily signal the parallel lifeways my Japanese ancestors were turning toward that mirror the actions of powerful local leaders here in Charlottesville. They turned toward liberal democracy, toward industrialised supply chains and towards the self-aggrandisement of lineages that claimed culturally high ground in social dynamics of urban formation. In the American-led post-war building and industrialisation boom that defined my father's coming of age, it was my family's silk-threaded wealth that allowed him to go to college where he studied with my mother, and to join the American professoriate, teaching Japanese to American business majors in the 1980s.

CONCLUSIONS AND OPENINGS

Through this exercise of tracing the examples of person (my genealogical history), place (history of Charlottesville, Virginia) and plant (history of *Morus alba*), the repeating patterns and practices of racial formation[110] in the service of profit accumulation become visible across the succes-

108 Author interview with Deborah Ujie on 13 April 2020.

109 'The Life of Jokichi Ujie'.

110 Michael Omi and Howard Winant, *Racial Formation in the United States: From the 1960s to the 1990s*, 2nd ed (New York: Routledge, 1994).

sion of waves of globally structured migration and displacement that have crossed Charlottesville and my family lines. As Justin Gammage notes in his exploration of the history of labour-based Black organising in Philadelphia, 'Capitalism's foundation mandates an exploited class, largely made up of marginalized communities', and the structure of hierarchy remains even as the terms of who sits in what positions changes.[111] The particulars of the favoured commodity crop versus the useless weed, and of the racial and social status of various immigrant populations (Huguenot, Irish and Asian) shift dramatically. But we can also see what does not change: that immigrant populations are made materially vulnerable, exposing people to precarity used to recruit these groups to enforcing their relative privilege through the maintenance of persistent anti-blackness.

A line of my own personal experiences in this Euro-Asian-American body evidences further turns in the chameleon forms of the systems of racial capitalism. I remember the seething anti-Asian schoolyard taunts from a childhood in Boston in the 1980s, and contrast that open hostility with the institutional embrace of an employer touting my presence on their roster as evidence of the design firm's commitment to racial *and* gender diversity in the 2000s. I can track these experiences against Jodi Melamed's periodisation of post-World War II US racial projects, and see in my experiences the rise of what Jodi Melamed calls neoliberal multiculturalism. She notes that, by the 2000s, dominant narratives of US exceptionalism used the sparse presence of minoritised individuals in the halls of power to supercharge the American myth of equal opportunity. The appearance of institutional diversity became an instrument to pathologise people seen as monocultural as backward, rationalising the social tolls of dramatic rollbacks of the mid-century welfare state.[112] Today I find myself interpellated as a mixed-race subject: evidence of parental 'love that sees no color', a label that uses old eugenical logics

111 Justin Gammage, 'Black power and the power of protest: Re-examining approaches for radical economic development', *Review of Black Political Economy* **44** (1/2) (2017): 23–36.

112 Jodi Melamed, *Represent and Destroy: Rationalizing Violence in the New Racial Capitalism*, Difference Incorporated (Minneapolis: Univ. of Minnesota Press, 2011).

of bloodline to exceptionalise mixing,[113] calling me into the project of pathologising those who are exploited by neoliberalism's structures. Meanwhile, today's language and management practices regarding Asian invasive plants and pests serve as a repository of the racist xenophobia that haunts the margins of everyday life, ringing in my ears as evidence that beings who are pictured as like me in their Asian-ness are annihilatable. These experiences are like so many invitations, like those posed to my ancestors before me, to align ourselves with the anti-relationalities, alienations and the violences of racialising market systems. But there are other paths to turn towards if we again retell relations between human, plants and land.

First, tracing my family lines in this piece shows that the dominant (and therefore easily accessed) ways of keeping records and family stories highlight those who aligned with the aims of projects of capital accumulation and cultural assimilation. Their stories were held so close by my family insofar as they were useful in the present.[114] Howard Ira Durie, who wrote the genealogy of the Durie family in 1985, came of age at the height of white ethnic genealogical self-description's cultural cachet in the early-twentieth century. The Durie genealogy tied the numerous present-day descendants of Jean Durier to a home deemed to have historical value by the New Holland Society, chaired by then-President Franklin D. Roosevelt in 1936.[115] It is this first Durie home I have photographs of my own beloved grandmother visiting in her retirement. It was my sense that she went there because she longed to know where she was from. But it was Jean Durie's appearance in the written record of land holding that valorised him as a 'first', that drew the thread of his particular line to the family forefront and sanctified his colonial home as a place of family pilgrimage. These particularities of power made Jean Durier the exemplar of where my family was 'from' during the twentieth century. But this reframing of the stories through

113 See Haritaworn's work for deeper analysis and discussion of this narrative, observed by many Asian-European descended people in Europe in consonance with my experiences in the US: Jin Haritaworn, *The Biopolitics of Mixing: Thai Multiracialities and Haunted Ascendancies* (New York: Routledge, 2016).

114 As observed at a societal scale in narrations of Haitian history by Michel-Rolph Trouillot and Hazel V. Carby, *Silencing the Past: Power and the Production of History* (Boston, Massachusetts: Beacon Press, 2015).

115 Bailey, *Pre-Revolutionary Dutch Houses and Families*.

which my family understands itself loosens my grip on Jean Durier as a significant progenitor, as a useful past for the present. Perhaps with the changing present, the context of ecological and social crisis brought about by the systems of accumulation that made Durier our primary figure, we can and should attend to other threads in our lineages that may not be so decipherable. I am not seeking an alibi for the ways my antecedents participated in the historical construction of whiteness and the violence underlying its benefits. A reckoning with that legacy is part of what spurs the current article. But Jean Durier was only one of 512 of my ancestors in his generation, and the centrality of his 'success' hides both the complexities of his story and the hundreds of other stories, traditions, habits and lifeways that might be useful origin points for today's narrations of where we come from and where want to go.

Second, physical and botanical environments hold evidence of the ongoing failures of systems of domination and profit-making, even as paper archives and familial and cultural stories of origin retroactively work to picture their inevitability. Attending to the land and the plants in these stories points to pathways occluded by these linear narratives and their foregone conclusions. My grade-school history class, museums and historical sites pictured colonial English settlers of Virginia destined for greatness.[116] But the mulberry's presence marks the persistence of silk's failure as a home-grown commodity. The story of silk shows the Virginia Company as a fragile entity, with investors desperately grasping for any possible mode of growing profits in a place where they had almost no sense of how to do so. Later, plantation masters appear as foolish investors who lost their shirts on a plant that would not do what it was intended to do. The failures of silk in Virginia punctures a retroactively teleological narration of settler and plantation success, opening a crack to an always-available historical indeterminacy.[117] Now, I see the mulberry as a living portal to the sense that a lot more has been

116 See, for example, a narration I often heard repeated in schools and museums of the 1980s and 90s drawn out in Chapter 4 of Virginia's mid-century elementary history textbook, entitled 'Planting a successful colony: The Virginia Company gives its support' in the textbook Virginia History and Government Textbook Commission, *Virginia: History, Government, Geography* (Atlanta: Charles Scribner's Sons, 1957), p. 46.

117 Katherine McKittrick, *Demonic Grounds: Black Women and the Cartographies of Struggle* (Minneapolis: University of Minnesota Press, 2006).

going on here, and perhaps alternative trajectories can be recovered for surviving, countering or resisting structures of domination rather than amplifying them.

Last, a physical question: since the mulberry failed to become economically central, its story has fallen out of historical consideration in Virginia, but what has the plant *been up to*? Tao Orion argues that invasive species are the symptom rather than the cause of the biodiversity loss that is the crux of the anti-invasive logics. The deeper causes of habitat loss are both the present human habits of mass land disturbance which favour weedy species like mulberries, and the 200 million acres of land planted in the equally non-indigenous monoculture crops of wheat and soy in the United States.[118] And from this exploration of the origins of plant invasiveness, we see that the pre-existence of a wartime chemical companies turned herbicide mega-manufacturers have leaned on the xenophobic habits of mainstream American culture to lend a moral urgency to highly profitable programme of herbicide-based invasive eradication.

The cultured response to see an invasive plant and seek to only to murder it[119] shortcuts any collective inquiry into its histories and other aspects of our present and historical relations to it. Attention to the plants, people and land in right front of us lets us attend to the things that our current cultural habits labour continuously to draw us away from noticing, both in terms of the larger historical legacies driving our current circumstances and of the alternative trajectories and solidarities that could emerge.

A few examples among many that are possible, if we really drew on what we could learn. First, Tim McCain notes *Morus'* edible berries are likely to have attracted early humans to the plant and this human proximity to the plant's edible parts may have introduced us to silk-spinning

118 Orion, *Beyond the War on Invasive Species*, p. 49.

119 This is a response that has troubled me in many settings even as I joined the chorus of native plant enthusiasts during my study and practice as a landscape architect. In plants courses, in public nature walks at natural areas, in plant specification books, in land management extension bulletins, the two facts that stood out as constantly repeated were the fact of the plant's Asian-ness (despite what we know about the 'Asian' mulberry's long cultivation and transit through France), and the need to annihilate it whenever practically possible.

caterpillars in the first place.[120] This opens a historical tradition of direct, metabolic relation to our surroundings that commoditised staples and industrial food systems have required us to forget. Second, from historical angles visible only obliquely in official sources, the hedgerows, forests, swampy and other uncultivated lands were likely the places where 'useless' trees like mulberries might have grown unbothered. Many scholars of the Antebellum South observe that these were spatial settings where enslaved people held camp meetings, surreptitious gatherings and eluded, if momentarily and incompletely, the surveillance regimes of the field.[121] If we turn away from seeing a tree as an alien to be cut out, perhaps we can recover its role as spatial accomplice to the rival geographies[122] of people living under a kind of extreme domination that echoes into our own time. In more recent memory, Alexis Nicole Nelson (@Blackforager)[123] drew on her own and many other peoples' longing for connection during the isolation of the COVID-19 pandemic by combining public education about the legacies of land, enslavement, and vernacular food traditions with practical explorations of the edibility of common North American plants. Nelson's work pointed to one avenue to lifeways of metabolic redundancy amid the huge systemic failures of pandemic response in the United States. For me, her demonstrations with plants resonated with an opening that the pandemic highlighted: what systems of relation do we need to build to sustain ourselves amid the dramatic shifts we are witnessing as today's historical actors? And what resources do we already have to explore these necessary ways of living?

120 Timothy J. LeCain, *The Matter of History: How Things Create the Past*, Studies in Environment and History (Cambridge, United Kingdom; New York: Cambridge University Press, 2017).

121 Stephanie M.H. Camp, *Closer to Freedom: Enslaved Women and Everyday Resistance in the Plantation South, Gender and American Culture* (Chapel Hill: University of North Carolina Press, 2004); Walter Johnson, *River of Dark Dreams: Slavery and Empire in the Cotton Kingdom* (Cambridge, Massachusetts: Belknap Press of Harvard University Press, 2013); J.T. Roane, *Dark Agoras: Insurgent Black Social Life and the Politics of Place* (New York: New York University Press, 2023).

122 Camp, *Closer to Freedom*.

123 Alice Woelfle, 'Foragers build a community of plants and people while connecting with the past', NPR Food, 29 Dec. 2023: https://www.npr.org/2023/12/29/1221120954/foragers-build-a-community-of-plants-and-people-while-connecting-with-the-past

To close, in one of my recent foraging outings, I found myself in the company of an East Asian elder who ran a local Vietnamese eatery, who smiled as we both picked mulberries near a public riverside walking trail.[124] I wondered if he, like my Dad, who emigrated from Japan, recognised many 'invasive' weeds as familiar culinary friends from Asia when he arrived in the US.[125] A blonde woman walked by and commented that she hadn't eaten mulberries since she lived in France. I wondered, wait … did the Duriers eat these too? After all, my family lore remembers that Durier meant 'dwelling by the river',[126] pointing to some point in time when relations to the places they lived were so important that peoples' names emerged from them. By the river, the same sort of setting I was standing in today, eating from a stand of trees which were here via an ancestral transit from East Asia to France to the US, from forest, to cultivated working tree, to weedy hedgerow, to invasive, to what will be next? My body hummed with tasting (remembering?) so many connections to people, places, and lands, even as I will never know most of the stories of what this flavour could mean.

ACKNOWLEDGEMENTS

Thank you to my dissertation committee Kwame Otu, Tony Perry, Beth Meyer and Barbara Brown Wilson, who commented on the first version of this paper when it was the last chapter of my dissertation. Thank you to Andrea Pitts, Meredith Palmer and Alexandra Judelsohn (Fall 2023 UB new faculty writing group) and Malcolm Cammeron, Thomas Storrs, and Jacqueline Sahagian (UVA urban history writing group) for accountability and conversation that informed this paper, and to Jayson Maurice Porter for conversations across art and writing that supported this work. Thank you to Colleen Brennan and Leah Kahler, students who found the Valley View Nursery Catalog in UVA Special Collections Library, and to Jordy Yager of the Jefferson School

124 The exact date escapes me, but this was sometime in the early summer of 2023.

125 Some of my favorite memories of my dad involve his collecting plants. He showed up at parents' weekend at the University of Virginia one year with his pockets stuffed with ginkgo seeds. When we'd walk as a family on the trails near Lexington, he'd squirrel away shiso leaves from the 'invasive' *Perilla fructescens* for later.

126 Durie, *The Durie Family*, p. 1.

African-American Heritage Center in Charlottesville, who partnered with my Architectural History Field Methods class that sent students there. Thank you to my parents whom I interviewed for this work in the deepest days of COVID lockdown, and to Theo, Peter and June for the support and love. Finally, thank you to the land and the mulberry trees who continue to productively shift my path.

Alissa Ujie Diamond's work focuses on histories of spatialised inequity and action-research as a basis for systems change in the contemporary world. As an interdisciplinary scholar, she draws on an early career in applied architectural and landscape design as well as scholarly frameworks from environmental history, geography, plant humanities, urban planning and ethnic studies. Her historical research focuses on racial capitalism and spatial development, probing how social hierarchies have been produced through city-building practices and structures, and how these uneven processes of extraction reach into the present. Her future-facing work focuses on historically-informed and community-driven research for intervention in current institutional systems. Finally, she draws on her background as a designer and artist to develop methods for engaging art and making to build solidarities and shared historical understandings of place and people.

Email: ad97@buffalo.edu

Magaly Ordoñez

Chicanx Cannabis Relationships: Cultural and Political Histories of Cannabis Resistance

PLANT PERSPECTIVES 3/1 - 2026: 98–126
DOI:10.3197/WHPPP.63845494909749
OPEN ACCESS CC BY 4.0 © THE AUTHOR

ABSTRACT

This article focuses on interdisciplinary feminist cannabis research that prioritises the cannabis relationships and spaces in Chicanx/Latinx communities. The interdisciplinary approach I take builds from the fields of ethnic studies, Chicanx feminisms, environmental humanities and critical cannabis studies. I offer a history of cannabis ethnobotany to understand the cultural and medicinal approaches to cannabis from a queer trans Chicanx feminist positionality. Signaling to a Chicanx cannabis history that exposes racial cannabis politics dating back to the early twentieth century in the US, I build from this history to share cannabis futures grounded in Chicanx environmental perspectives. There is a need for cannabis research because human-plant relationships are currently tethered to extraction and profit, as is visible in current cannabis industries.

KEYWORDS

Cannabis relationships, Chicanx feminisms, critical cannabis studies, ethnobotany

---

uring a time of global uncertainty and grief, the California cannabis industry made $15.2 billion dollars in revenue between 2020 and 2022. While businesses were shut down due to COVID-19 safety restrictions, cannabis dispensaries were considered essential businesses. In the US specifically, medicinal, political and legal relationships with cannabis have been at the forefront of drug policy for over a century. In the early 1900s medical apothecaries and practitioners prescribed cannabis (Grieringer 1999). Whereas in the late 1980s and 1990s HIV and AIDS patients resorted to alternative medicine as the US government lacked initiative to find solutions to the epidemic (Gould 2002). Research shows that cannabis has antiviral properties, which can have both positive and negative effects among HIV/AIDS patients (Ross 2023). As such, all consumption of cannabis for health conditions should be tailored to the individual. Currently, the cannabis industry is being molded by capitalism's illusion of profit with people's well-being as a secondary priority. Cannabis is federally prohibited in the US and classified as a Schedule 1 Substance with no medicinal value and a high rate for addiction. Based on geographical location, cannabis can be medically or recreationally legal, decriminalised,

or completely prohibited at the state level. This is based on racialised political bias rather than scientific research. Such bias dates to the Nixon administration that denied research findings proving cannabis was not dangerous in order to support his political agenda inciting the War on Drugs (Hudak 2016).

Stereotypical cannabis pathological tropes include incarceration, addiction, or 'having poorer educational outcomes' from cannabis use (National Institute on Drug Abuse 2020). Studies demonstrate both the harms associated with cannabis consumption (Daldegan-Bueno, Linder and Fischer 2022; Hall and Stepjanovic 2020; Kansagara et al. 2017; Matheson and Foll 2020;), as well as the use of cannabis to treat opioid use disorder (Benedict 2022; Elkrief 2023; Rosic et al. 2021; Socias et al. 2018; Timko and Cucciare 2018).[1] There are major histories of cannabis that have been written over the last thirty years that address its medical benefits, hypercriminalisation and racial policing and social history. Since 1996, when cannabis was first medically legalised in California, research studies have explored the uses of cannabis in treating cancer, HIV and AIDs-associated symptoms and as a remedy for the side effects of harsher pharmaceuticals (Abrams 1998; Braitstein, Kendall and Chan et al. 2001; McPartland and Pruitt, 1999; Prentiss, Power and Balmas 2004). During this era scientists identified the endocannabinoid system in the late-twentieth century (Pisanti and Bifulco 2018), which points directly to a 'long association of humans with cannabis' (Crocq 2022). As such, medical conclusions about cannabis benefits have been prominent and ultimately influence states across the US in their passing of medical cannabis legalisation policies. There is currently a high interest in cannabis research on the use of cannabis for harm reduction among opioid users (see Lucas 2017; Wiese and Wilson-Poe 2018), which offers a public health perspective that is often missing from policy briefs and business models for the cannabis industry.

This article calls attention to the ways Los Angeles cannabis cultures embody and constitute social relationships and political histories built on solidarity and resistance. I argue that Chicana/o/x cannabis social

1 My focus here is not to delineate the historical trajectory of cannabis in the USA. There is research ranging from chemical, psychological, legislative and public health aspects of cannabis legislation among other subcategories that might be of interest to scholars.

cultural spaces and relationships have been rendered invisible within larger cannabis discussions in the LA geopolitical discourse. As part of a Chicanx feminist research project, I embed my experiences as queer trans cannabis patient from California to situate lived experiences as feminist methodology and theoretical foundations missing in broader cannabis research. This interdisciplinary cannabis feminist research prioritises cannabis relationships and spaces in Chicanx communities that build from Chicanx feminisms and qualitative ethnographic methods. The questions guiding this article are the following: how have Chicanx/Latinx folks advocated for and fostered alternative cannabis relationships and spaces in Los Angeles? How can the stories and practices of Chicanx/Latinx LGBTQ+ people inform social justice-based relationships with cannabis? In this article I first outline Chicanx feminist frameworks shaping the research followed by an outline of the feminist methodology informed by practices of 'the rotation'. After introducing the research participants, I position their narratives within a Chicanx cannabis history in California detailing the racial politics engulfing cannabis dating back to the early twentieth century. I then focus on Los Angeles cannabis culture as described briefly by participants. I conclude with reflections on cannabis ethnobotanical futures that engage with Chicanx environmental perspectives.

Throughout this paper I use Chicana/o and Chicanx interchangeably, the first to keep the author's original use and the latter represents mine and a disciplinary intervention to embedded gender non-binary and trans inclusive language. Chicana/o/x identity represents Mexican-American communities or those of Mexican ancestry in the US; Chicana/o/x is a politicised term rooted in political histories of resistance from the 1960s and 1970s (Oboler and González 2005) in response to political persecution, institutional racism, economic inequality and lack of educational opportunities. Continuing the legacy of mass political advocacy of Mexican-Americans across the Southwestern United States, the Chicano Movement, comprising community members, activist and academics, is a comprehensive term for 'multiple forms of militant activism' emanating from the idea that 'working-class Mexican Americans could demand and win progressive change' and challenge racial and economic injustice (Oboler and Gonzales 2005). A demand and outcome from the movement was the establishment of academic Chicana/o Studies departments across universities in California

aimed at combining education, research and political consciousness. Additionally, this is in tandem with other social ethnic movements that were fighting racial oppression, economic disenfranchisement, political suppression, among other issues, in the USA, such as the Black Power Movement, American Indian Movement, Asian American Movement and other Third World liberation movements.

While the Chicano movement shaped political activism and advocated for racial justice among Mexican-Americans, Chicanas have long criticised the male-dominated politicisation that invisibilised their labour that reproduces sexist narratives and organising structures (Dicochea 2004; Espinoza 2007; Espinoza, Cotera and Blackwell 2018). Chicanas both supported the movement and created separate branches of organising tailored to their needs. For instance, the Chicana feminist movement, similar to Black and Asian feminist movements of the time, aimed to 'improve the position of Chicanas in American society', by believing in an analysis of gender alongside race and class (Garcia 1989: 220). Chicana feminists have challenged sexist Eurocentric ways of being and knowledge production that push back against notions of intellectual validity rooted in elitism by offering one's own experiences to connect 'the self to individual communities and to relations of power' that reproduce social inequality (Elenes 2000: 105).

More recently, trans Chicanx scholars have more directly critiqued transphobia and harmful gender binaries among Chicana feminisms (Aguilar-Hernandez and Cruz 2020; Caraves 2020; Cuevas 2018; Galarte 2021; Heidenreich 2020), and they offer a reimagination for engaging Chicanx trans* studies that expands the fields ideological, onto-epistemological and pedagogical frameworks beyond the gender binary. The use of the 'x' has been advocated for by transgender and gender-nonconforming people in the US 'as a reminder that their bodies are still experiencing a colonisation invested in disciplining them to fit a standard gender identity, gender presentation, sexual orientation, and a particular sexual performance' (Pelaez Lopez 2018). A trans Chicanx feminist approach is priority here because cannabis spaces in the USA are not exempt from transphobic rhetoric pushed forth by right-wing racist policies currently attacking trans communities.

CHICANX FEMINIST FRAMEWORKS

Through a Chicanx feminist lens, I highlight the precarity of cannabis relationships within a context of US geopolitics by which capitalist settler logics manipulate cannabis understanding and discourse. Feminist theoretical and epistemological models help address and challenge cannabis politics that often romanticise the growing capitalist industry and also to expose embedded structures of oppressions through an intersectional lens. Cannabis as the subject of Chicanx feminist research refuses hegemonic knowledge production about plants as merely resources for extraction. Chicana feminist epistemologies (CFE) (Calderón et al. 2012) centre lived experiences of Chicanas while also transcending research by the cultivation of self. Chicana feminism is grounded in Anzaldúan and third world feminisms as a means to resist epistemological racism by foregrounding the life experiences and knowledge of Chicanas embodying 'a sense of political urgency to engage in a decolonising process and address educational [and social] inequities within Chicana/o communities and this decolonising work is never separate from spiritual activism' (Calderon et al. 2012: 516). Chicana/x feminist's theorisation and praxis is imperative in cannabis research, and broader plant relationships, because it foregrounds the 'embodied knowledges of Chicanx/Latinx people and connect research to social justice activism, effectively reworking the boundaries of academic knowledge production' (Cahuas 2022: 1515), that challenge objectifications of both the body of the cannabis consumer and cannabis itself. Chicana/x cannabis knowledge production here must be grounded in the lived experiences and embodied knowledge of communities directly involved and engaged in cannabis culture, both mainstream and underground, given that '[o]ne always writes and reads from the place one's feet are planted, the ground one stands on, one's particular position, point of view' (Anzaldúa 2009: 172).

Much of queer Chicana/x feminist theorisation is grounded in Anzaldúan feminist thought, which builds from the writing, poetry and scholarship of Gloria E. Anzalua. As a queer, lesbian Chicana from Tejas, she theorised on the embodied practice of challenging heteropatriarchal violence among Chicano communities and within white queer spaces that attend to the interlocking impacts of historically silencing the experiences of women of colour, lesbian and queer people.

Significant to Anzaldúan thought is the theorisation of the borderlands as a site of historical geographical violence that directly impacts immigrant communities in the US, especially along the US-Mexico border. Anzaldua writes the '[b]orderlands are physically present wherever two or more cultures edge each other, where people of different races occupy the same territory, where under, lower, middle and upper classes touch, where the space between two individuals shrinks with intimacy' (Anzaldua 2022: 8). Such edges and spaces where differing experiences, viewpoints, knowledges and people meet, 'represent intensely painful yet also potentially transformational spaces where opposites converge, conflict, and transform' (Anzaldua and Keating 2015: 242). Beyond the physical borderlands, Anzaldúan thought situates the 'psychological borderlands, the sexual borderlands and the spiritual borderland' as not particular to the Southwest, as is often assumed, but rather an embodied in-between space that cannabis relationships can fill. The stories of Chicanx, Latinx and Mexican stoners situated in this paper offer insights on their personal, embodied experiences navigating social structures materialising through cannabis that is often an in-between space. Chicanx cannabis experiences are representative of a political and cultural history trailing cannabis for generations across the US and Mexico that is at the centre of the interlocking vectors of marginalization and resistance. Chicanx feminist cannabis research offers political and cultural embodiments of solidarity that are 'deeply relational and aims to develop new conocimientos, or understandings' that are often missing in mainstream Western cannabis research (Cahuas 2022: 1517). Chicanx feminisms expose legacies and contemporary manifestations of coloniality shaping how we understand our relationships to other human and non-human beings including cannabis.

Chicanx feminist frameworks facilitate a critique of heteronormative hegemonic settler narratives shaping the development of a growing 'legal' cannabis production, as do Indigenous feminist scholars (see Reed 2023). Chicanx feminist decolonial onto-epistemologies begin to sketch how settler colonial logics shape embodied relationships with cannabis or 'how body and place can be rearticulated to expose mechanisms of oppression, such as homophobia and offer liberatory alternatives' (Calderon et al. 2012: 520-521), especially within a growing white heteronormative dominant cannabis industry (MJBizDaily 2022). A gendered analysis of cannabis and sexuality intersect in the geopolitical

realm as respective cannabis and LGBTQ+ policy changes have paralleled similarly rapid changes in public opinion in the US (Schabel and Sevell 2017). Furthermore, in the US, cannabis ownership is almost 85 per cent 'white, with non-white owners comprising just over 15 per cent of the market' (cited in Ordoñez 2024). Additionally, women make up less than 25 per cent of ownership and executive roles in the cannabis industry, with LGBTQ+ people also being underrepresented (Ordoñez 2024). Research shows that women trimmers in the cannabis industry are 'underpaid in comparison to men and have been subject to egregious forms of sexual harassment', including pay incentives for working topless at cannabis farms (Ordoñez 2024; Walter 2028).

METHODOLOGY

Methodologically, the research is shaped by Chicanx feminist ways of knowing, being and knowledge production practices that disrupt and problematise 'Western notions of truth/fiction, individual/collective, and memory/history' (Davalos 2008). Building from qualitative Chicana feminist (auto)ethnography, I engage 'academic readers by pulling them away from interpreting this research as simply a distant 'unit of analysis text', a challenge to white feminist autoethnography methods that situate the individual as a unit of analysis to critique neoliberalism (Craven and Davis 2013). The significance of autoethnography is that it 'confronts and defies traditional investigative methods…[and] challenges the role of objectivity in research since it underscores the positionality of the researcher in this investigation' (Chavez 2012: 342). Queer Chicana feminist methodologies guide this paper's analysis of autoethnographic research data on cannabis relationship, spaces and culture rooted in cultural and political histories of embodied resistance in Los Angeles that challenge notions of objectivity that distance the researcher from the field. Not only do I situate my own experiences alongside the participants, the fieldwork used for this research is co-constructed in which 'both parties—researchers and interlocutors—are reading each other and making conscious or unconscious decisions about how to present themselves and interact with one another' (Miranda 2022: 355). With this in mind, I propose a methodology framed as 'the rotation' by my research participants to show the varying complex Chicanx cannabis relationships across Los Angeles.

THE ROTATION

The rotation consists of the cannabis users interviewed: Kuetzal, Juana Ines and Gude. Their words contribute to this article's discussion on Chicanx cultural and political histories of resistance, and introducing them first is a symbol of respect for their time and stories. One major aspect of cannabis culture impacted by COVID-19 is our way of connecting with each other when we smoke together in a rotation. The rotation refers to the people who participate in a cannabis smoking circle. Usually when there is a group of people everyone gathers in a circle in order to pass the joint, blunt, piece, etc, around. The rotation also refers to the direction in which cannabis is passed, which is almost always to the left and should always continue in the same direction. There is a rotation in the circle where everyone can see each other as they share cannabis, stories and check-in with each other. The customs of a rotation are part of informal rules within cannabis culture that people learn through their participation (Reinarman and Cohen 2007). This is not unique to cannabis culture, however, as circles can represent sacredness in varying Indigenous cultures. Smoking circles, however, are not meant to appropriate sacred Indigenous practices. I recognise that cannabis smoking circles, as described here, are important for understanding how and where people co-create cannabis relationships that attend to cultural practices.

Out of safety, smoking circles in general were impacted because sharing smoking devices or passing the blunt or joint would increase the chances of coronavirus transmission. The rotation, an organic component of cannabis culture, was near impossible during research fieldwork. Although our rotation and practice of sharing was disrupted, I created the rotation as a guide that disrupts linear research design and writing. That is, the individual interviews were conducted online via zoom, and here I created an imaginary smoking circle in order of the individual interviews: Kuetzal, Juana Ines and Gude. I did not provide the participants with the cannabis they were consuming, another aspect of cannabis culture; each person had their own. This textual re-imagined rotation is part of cannabis ontologies informed by queer Chicanx cannabis stoners from LA. The intention of smoking circles vary based on the people present, and include 'listening to one another's concerns, challenges and joys [which] traditionally take place in the form

of a circle' (Medina 2019: 377). Chicana feminist onto-epistemologies share these values and invoke that knowledge to make sense of why and how smoking circles are integral in cannabis culture.

Kuetzal (she/her/hers, they/them/theirs)

I began the zoom interview with Kuetzal on an early Saturday morning late January 2022. Kuetzal identifies as a queer Mesoamerican Latinx cannabis user that takes pride in their Guatemalan and Mexican cultural identity. They have bachelor's and master's degrees from two different California State Universities in the LA area. As we started the interview, Kuetzal responded to the question of identity by verbalising her critique of dominant homogenous conceptions of the term 'Latinx'. Kuetzal's comments are part of a larger conversation among Chicanx and Latinx communities challenging colonial understandings of US Latinx identity and its material impact on Afro and Indigenous communities due to Latinidad often centring whiteness, heterosexism and anti-Blackness (García Peña 2020; Pelaez Lopez 2018). Kuetzal states that the term 'Latinx' often compartmentalises identity and reminds us that 'race is just a construct, a social construct'. Kuetzal notes that when people apply the term Latinx, they are 'lumping me into a category. [But] wait. [I'm] more than just being Latinx'. Here, the term Latinx does not capture the cultural, ethnic and racial identity of Kuetzal, nor many other folks across LA who are immigrants, mixed or biracial and Indigenous.

Cannabis has offered Kuetzal healing, cultural connection, medicinal cannabis knowledge and sense of collective awareness among Chicanx/Latinx communities. When asked, how would you compare the ways cannabis use is talked about in Latinx, Chicanx and Latin American communities compared to the dominant US society and/or other marginalised communities? She shared, 'I feel that when it comes to cannabis, in Latinx, Chicanx [communities], and also Latin America, I feel this plant is known ... It's known. We are aware of what it does for us' (Kuetzal interview excerpt). Cannabis, also known as marijuana, mota, yerba, among other terms, in Chicanx/Latinx communities, is not new, as Kuetzal reminds us. Communities across Latin America have known how to use marijuana as medicine, as *remedio* (remedy) and the awareness about cannabis as medicine is misguided by racial politics and social stigma. The cultural and historical relationship to

cannabis is marked by violence due to repressive governments that in turn have field cartel conflicts. For Kueztal, cannabis has additionally been a source of healing from gender violence and trauma experienced throughout the years.

Juana Ines (she/her/hers)

The second stoner in the rotation is Juana Ines, a public health practitioner who has bachelor's and master's degrees from two different California State University campuses in the LA area. Juana Ines is a knowledgeable working-class community member, researcher and advocate who describes herself as a professional that refuses to see herself as somehow more than other folks in her community because of her education and profession. As a bisexual Mexicana/Latina femme that mainly consumes cannabis for her chronic illness, Juana Ines takes a moment for her to grapple with non-normative sexuality in a traditional Mexican household. She states, 'I am bisexual. It's one of those things, though. I still have not been able to evolve because my parents. [It is] very conservative at home. They somehow had an idea that this was my identity' (Juana Ines interview excerpt). Cannabis has offered Juana Ines a sense of self-awareness, relief and healing that flourished as a necessity due to heterosexism and having an invisible disability requiring her to seek out medicinal cannabis.

Her experiences as a Mexicana/Latina in Los Angeles living with an invisible disability shows the ways her body makes visible the ways ongoing forms of oppression are historically interrelated (Hall 2011; Pellow 2021). Her gendered, classed, sexualised and disabled experience brought her to cannabis; the type of body that is either tokenised in medical cannabis legislation campaigns or hyper-sexualised at cannabis dispensaries. For Juana Ines, her relationship to cannabis represents a cultural history of her body as a Mexicana/Latina cannabis user with an invisible disability.

Gude (they/them/theirs)

The third stoner in the rotation is Gude, a queer Mexican-Filipino community outreach coordinator for a cannabis non-profit organisation, an artist, a well-being advocate and a self-identified lover. Cannabis has offered Gude patience, focus time when they are overstimulated, relief

from anxiety and overall well-being. Gude's experiences and lessons with cannabis consumptions and activism has asked them to prioritise care and cannabis social justice that abandons incarceration and criminalisation. Their political awareness of the racism that permeates the commercialisation of cannabis, especially through dispensaries, is an issue significant to Gude's envisioning of cannabis culture. Gude imagines a future of cannabis and overall cannabis culture in which 'all the people that had been incarcerated for weed are out of jail. They do not need to be there, forgive them. Because times are changing you know' (Gude's interview excerpt). For Gude, a queer Chicanx cannabis user and advocate, cannabis politics and culture are different from the twentieth century, and people should not need to be in jail for cannabis related charges when people are making millions in the cannabis industry. This critique of incarceration demonstrates that cannabis reform is not working for marginalised and targeted BIPOC (Black, Indigenous and People of Colour) communities as is the narrative across recreational cannabis policies in the US.

Los Angeles is a major city where racial politics, cannabis and geography meet to create a cannabis culture influenced, and influencing, mainstream and brand-name cannabis discourse. Gude is directly involved with cannabis community organising, and witnesses first-hand the cultural shift occurring across LA cannabis scenes and people's relationship to cannabis. They share, 'these really swanky like dispensaries come out. And especially all these like not people of color … they don't really have a care in the world, or celebrities coming out with their own cannabis brands … I think now, it's enough time to let people live their lives still, at least reclaim that part of them'. Gude wants people who have been incarcerated to live their lives while they still can, given that they have spent significant time in jail for cannabis. As a queer Chicanx stoner, they understand the current cannabis industry as careless when comparing brand-name cannabis brands and people who have been criminalised for cannabis use or possession. Current cannabis spaces such as dispensaries are trailed by a history of criminalisation and also care networks that date back to queer, trans, gay and lesbian cannabis advocates from the 1990s. There is a disconnect between current celebrity-type brands, for instance, and the care invested in creating cannabis clubs, as they were known initially in California.

CHICANX CANNABIS HISTORY

The experiences of Kuetzal, Juana Ines and Gude are situated within Chicanx cannabis history that reminds current generations of how cannabis activism led to current access to cannabis in the US. Chicanx cultural and political history of cannabis in the US highlight how cannabis is marked by racist criminalising politics that pushed cannabis into the mechanisms of the War on Drugs. Mainstream discourse about cannabis has historically been rooted in racist and sexist assumptions that date back to the early twentieth century when 'yellow journalism' sensationalised marijuana as being 'used by dangerous populations' (Valdez and Kaplan 2019: 124). The racialisation of cannabis isn't fully in effect until US and California government officials establish a national scientifically unjustified reputation of Mexican cannabis as producing violence, due to marijuana being widely considered as a lower-class drug in Mexico (Campos 2012; Grieringer 1999). The racist narrative of the 'Mexican Marihuano or loco weed' (Grieringer 1999: 254) allowed for the perpetual persecution and discrimination of not only Mexicans as is evident, but also East Indian immigrants who faced racist anti-immigrant sentiment in the first two decades of the twentieth century accused of growing cannabis in northern California.

Part of the 1900s anti-cannabis rhetoric and motivation behind capitalist and racist laws were the associations of cannabis with poor people and the conflation of class with race: 'Class consciousness was a recurring element in marihuana prohibition even in its infancy. Mexican-American patricians appealed to sentiments of [Black] inferiority, and European-American officials appealed to sentiments of Mexican inferiority' (Bonnie and Whitebread 1974: 35). This racial hierarchy and anti-Black sentiment still permeates national cannabis discourse. This was a time of large Mexican immigration and many at the time made 'pointed references … to the drug's Mexican origins' and sometimes to the criminal conduct which inevitably followed when Mexicans used the 'killer weed' (Bonnie and Whitebread 1974: 38–9).

In 1914, the Los Angeles City 'board's enforcement efforts soon brought marijuana to public attention ... where the board's agents launched a crackdown in the city's Mexican Sonoratown neighborhood' (Gieringer 1999: 259). The raid in Sonoratown, present-day Chinatown, is said to be the first cannabis raid in the US (Dudley

2014). This is important because it not only sets the historical reference point of racist cannabis narratives that seeped into late twentieth century's war on drugs, but also into current-day cannabis recreational legalisation efforts that rely on criminalising anti-Mexican and anti-Latinx sentiments (Guerra 2022).

This Chicanx cannabis history coincides with the rise of Asian exclusion acts stemming from the fear of an 'Asian invasion' which 'grew out of racial and class anxieties' (Karuka 2018: 82). This colonialist fear of Asian migrations combined with centuries old stereotypes of 'orientals' and the Chinese in particular, threatened an imagined future and 'vision of California as a space of settler accumulation'. With particular racial, class and cultural qualities this expressed fear also excluded Mexican, Chicana/o, Indigenous and Black folks and carried with it gendered assumptions about cannabis users. During this era, LA's racial composition was also shifting with significant numbers of African Americans relocating to a city considered a 'land of opportunity' and whose 'racial hostility against African Americans was not as severe as it was in other parts of the country' (Kun and Pulido 2014: 10). The early twentieth century set the foundation for racist ideological and political understandings of cannabis that faced resistance and push back in the second half of the century.

Federally, cannabis is classified as a 'narcotic,' in the US which is a legal term frequently applied arbitrarily and up until recently, has carried harsh punishments due to its alleged, not ethically proven, detrimental properties and substance misuse, and as such, research and development have been forbidden' (Chaachouaya et al. 2023: 98). This political history is important because it is tied to the racialisation of communities of colour, specifically Black and Latinx/Chicanx communities, who continue to fight against disproportionate persecution, even in states with recreational cannabis laws. The early half of the twentieth century's marijuana crusade was aimed at depicting cannabis as immoral, dangerous and causing madness, all fuelled by racist ideologies. The second half of the twentieth century declared cannabis as illegal worldwide and classified as a Schedule I of the 1961 Single Convention on Narcotic Drugs treaty (Chaachouaya et al. 2023: 99). The ideological and discursive shift about cannabis as medicine also shifted as botany became secondary to chemical science for medicine. Additionally, synthetic chemical science also shaped the way we understand and approach

plants as medicine from one of holistic remedy to addictive side–effect ridden pills.

LOS ANGELES CANNABIS CULTURE

Queer, trans and femme cannabis users in this research define their relationship to cannabis culture from an intersectional lens that prioritises their hope for the future. Sociologist have defined cannabis culture or 'user culture' as a learned social behaviour that includes informal social rules, discretion and characteristics of etiquette that constitutes cannabis use as a cultural practice in contemporary society (Becker 1953; Cohen and Reinarman 2007). Social scientists have identified cannabis use patterns as a 'ritual means of stepping outside that [Western work] ethic for a couple of hours – to take a break from it, to seek changes in the consciousness', (2007: 127). To an extent, cannabis culture embodies an anti-capitalist potential that allows people to simply exist without the demands of productivity. Chicanx cannabis users included in this paper aim to 'recover subjugated histories and knowledge(s)', that critique 'master narratives of racial and patriarchal orders' (Aldama and Quiñonez 2002: 2). I offer a feminist research interpretation of the rotation's definitions of Chicanx cannabis culture as place-based and geographically informed by LA geopolitics that challenge western racist, anti-Black and xenophobic notions of cannabis use as inducing violence. Their definitions are connected to cannabis spaces and relationships as one main aspect of cannabis culture in Los Angeles that centres on sharing with others, whether that be food, cannabis, stories or the location of a 'spot'.

For Kuetzal, cannabis culture is about sharing, even when someone says they do not have any cannabis to share. They state: 'I'm coming from the perspective of community, that is why sharing is like "hey you don't have it today, I got your back. I'm sharing but go ins, go ins in whatever you can". That's the community that I try to nurture when I'm smoking with cannabis users'. The term 'go ins' is slang for offering or contributing something to the space one is part of aside from money, in this situation, this means sharing food, snacks, or even intentional vigilance to those around that may call the police for smoking cannabis publicly. Sharing cannabis is part of a queer Chicanx cannabis

culture that values community, communication and balance because even when someone does not have weed to share, there is a collective awareness that you can contribute something else, like water, food or snacks. Kuetzal's relationship with cannabis is one that prioritises sharing cannabis with other folks who make up their smoking community. People who are not considered part of their smoking community are those that are selfish, greedy and disrespectful. 'So what happens, you get cut, you're not gonna be part of the next session, because that's not how you should be treating it in the first place'. Cannabis culture is about respect and self-awareness because it has been stigmatised and persecuted for years that smoking circles are meant to challenge that to create a sense of community and trust.

For Juana Ines, the current cannabis culture 'needs a lot of adjustments and a lot of actual education' by creating cultural content that 'is really going to change the way here in LA' (Juana Ines interview excerpt). People like Mala Muñoz, a Latina cannabis advocate in LA who created Marijuanera Podcast, as Juana Ines suggests, are pushing back on the appropriation happening in the cannabis industry, while also embracing their sexuality that is either hypersexualised or shamed in a machista misogynist society. Juana Ines actively attends cannabis events in LA because 'I want that to grow, you know, I want that power of different people actually being able to contribute to it. That's my hope'. Different people contributing to cannabis culture in LA also means addressing biphobia and embracing sexual diversity and non-normativity that has been rendered invisible in mainstream cannabis culture. Juana Ines's negative experience coming out to her parents as a bisexual cannabis user combined with the cis-heteronormative cannabis discourse, show that LA Chicanx/Latinx communities and cannabis culture are too distant from one another. Latinx/Chicanx communities have contributed to cannabis culture, even when social structures and political ideologies have villainised and criminalised them/us.

At the opening night for a new cannabis brand in Los Angeles, Gude noticed the guestlist for the event was made up of media influencers, press, media sponsors, the CEO, 'the people that grow it, the people that create the packaging', (Gude interview excerpt) among others. More importantly, Gude looks for a personal connection as part of their definition of cannabis culture. With a room full of people welcoming a new cannabis brand into the industry, 'we have to remember, you know,

our incarcerated community, people that are in jail for cannabis. They are definitely a part of our culture because we owe a lot to them [and] their journey. Unfortunately, people get caught up and then they're put into jail and they're punished for it' (Gude interview excerpt). Cannabis legalisation has validated contemporary cannabis culture to celebrate cannabis consumption as a lifestyle while often forgetting incarcerated people who are not reaping the benefits of business and industry. There is a responsibility to have communities of colour participating at these events, and Gude states that: 'it identifies with my culture, I feel like there were a lot of people of colour. There were a lot of people [who] look happy, like they were very, very eased and I feel there are a lot of women, women identified, especially in my community. I look for that, I look for the femmes and the people that it brings a lot of peace and solitude because I identify with that'. Gude alludes to the gendered dynamics women and femmes face at the structural level, and the ways cannabis is one space their voices and experiences can be centred.

CANNABIS PLANT KNOWLEDGES

Mainstream understandings about cannabis now position the plant in a relationship tethered to extractions, criminalisation and profit. Cannabis ethnobotanists have built from 'botanical, environmental and anthropological evidence to formulate [a] theoretical reconstruction of the earliest uses of Cannabis' (Clarke and Merlin 2013: 29). While the field of ethnobotany developed to understand the relationships between communities and plants, the 'standard Western notion of "ethnobotany" is misleading because of its association of "ethnobotany" with "primitive or unlettered societies". This association creates a false binary' (DeGuzmán 2019). Chicanx and Latinx cannabis relationship exceeds the limitation of ethnobotany in its expansiveness and anticolonial approach to plant relationship. Traditional ethnobotanical understandings of cannabis with a new direction pushed by Latinx scholars who emphasise 'the botanical' as

> encompass[ing] more than botany as a science. It exists in many registers and in relation to many kinds of activities: agricultural, horticultural, medicinal, gastronomic, aesthetic, and so forth. The "botanical" is transdisciplinary and crosses lines between specialisation and everyday practices, capturing a wider swathe of knowledge practices pertinent to LatinX (DeGuzmán 2019).

Cannabis relationships from a Chicanx feminist approach recognise that 'the study of "ethnobotany" where the term "botany" and what counts as "botanical knowledge" still operates largely within the logic of European and Euro-American colonialism and empire' (DeGuzmán 2019). Cannabis relationships have a historical lineage in both transgressive and violent place-based understandings that are challenged through the lived experiences as demonstrated by Gude, Juana Ines and Kuetzal.

In Chicanx and Latinx communities, cannabis has been used for physical pain and psychedelic rituals, along with recreational uses during labourious conditions (Johnson 2017). The heritage of a Chicana/x cannabis ethnobotany is located in the kitchens, backyards, at the park, in people's bathrooms within a literal sense and in revolutionary war within a Mexican historical sense. My Mexican mother has always had a bottle of green rubbing alcohol with cannabis flower in it for her physical ailments. She learned this from healers in Sinaloa, Mexico and local *botanicas* in California. This is a cultural practice and place-based knowledge that centres cultural spaces where cannabis medicine is normalised and is contrary to popular belief that depicts Mexican and Chicanx cannabis users as drug traffickers.

The intergenerational knowledge about cannabis handed to me, such as concentrated topical remedies, represents the embodied Chicanx/Latinx cannabis heritage rooted in Mexican traditions. My mother's spiritual and cultural upbringing has incorporated plant medicines, including cannabis, to heal from varying ailments. This cultural knowledge is an example of, 'LatinX botanical epistemologies' that incorporate botanicas as important sites of 'healthcare resource for LatinXs in the United States' (DeGuzmán 2019), and are examples that situate cannabis relationships as healing. Additionally, this highlights the cultural place-based cannabis relationships in Chicanx and Latinx communities that have had to create alternative spaces for healing out of necessity due to the lack of affordable and equitable health care in the US.

The origins of cannabis cannot be traced to one single geographical location given its diverse species, subspecies and varieties, except for Antarctica. Cannabis has been traced as Indigenous to Central Asia and is 'found almost every-where on the planet' (Chaachouaya et al., 2023: 99). Cannabis is among the first plants to be traditionally used for 'therapeutic, culinary, psychotropic, fiber, and oil-yielding plants discovered

since agricultural farming began 10,000 years ago' (Chaachouaya et al. 2023: 99). It is well known to the public that cannabis, scientifically known as *Cannabis sativa L.*, has been used for 'the treatment of chronic pain, depression and inflammation' (Hourfane, et al. 2023; Lyons et al. 2023), as well as dietary supplement (Iftikhar 2021). Relief aided by medicinal cannabis include nervous-system-related conditions, along with gastric disorders, diabetes, scarring, nausea, seizures, multiple sclerosis, cancer, Alzheimer's, insomnia and Crohn's disease (Balant et al. 2021; Chaachouaya et al., 2023; Hourfane et al. 2023).

Historically, cultural, spiritual and ritual practices have involved smoking or consuming psychedelic plants including coca leaves in the Andean region, tobacco across North America before it was mass produced into cigarettes, ayahuasca, peyote and psilocybin mushrooms, to name the most commonly known. There are traditional and culturally specific uses for cannabis across countries such as traditional religious drinks prepared and highly consumed during Indian festivals (Hourfane et al. 2023). The relationships between cannabis and humans have influenced the evolutions and genetic diversity of cannabis impacted by 'artificial selection of desirable qualities and for a variety of purposes, humans have been manipulating Cannabis plants for many thousands of years' (Clarke and Merlin 2013: 6). This is how we now have options for indica, sativa and hybrid strains that reflect specific psychotropic characteristics, although some scientists might say these strain differentiations are not as distinguishable as they seem.

Furthermore, there is a colonial history attached to cannabis that is often overlooked and perpetuates anti-Black historical cannabis narratives. For instance, hemp 'provided rigging and sails that allowed sailing vessels of the great fleets of Europe and Asia to navigate the oceans for exploration, exploitation, battle, commerce and travel' (Clarke and Merlin 2013: 6). While at first this may seem that hemp aided the development of transportation technologies such as boats and sails, however, the era in which these developments occurred were during the time of mass human trafficking and enslavement of African people. Additionally, the use of cannabis in North America also came at the expense of the theft and exploitation of Native land (Reed 2023). With theft and exploitation of Indigenous land came the transplantation of plants which 'involved the colossal re-organisation and destruction of the natural ecosystems of colonised lands by imperially directed

impositions both mixing with, appropriating and replacing native species' (DeGuzmán 2019). Cannabis history has a linkage to colonial history, ecological degradation, and is not absolved from social, economical and agricultural violence. Colonial logics of dispossession are reproduced in the cannabis industry through the usurpation of the land to cultivate cannabis and extract its value without regard for the impacts this has on Indigenous peoples, women in particular, 'that require land-based relationships to be destroyed, removed and replaced with systemic forms of labour exploitation' (Arvin et al. 2013).

Historically, Western researchers, including ethnobotanists and anthropologists have enacted their academic social, economic, gender and racial privilege to extract knowledge from Indigenous communities for their professional benefit. As a response, feminist anthropologists have challenged such methodological and epistemological approaches by 'paying more attention to the power dynamics' between researcher and subjects through a gendered perspective that instead highlights the voices of the research participants (Lamphere 2016: 42). More specifically, African American/Black and Chicana/Latina feminist scholars across fields of anthropology, history, sociology, literature, among others, explored and emphasised the racialised and gendered positionality of women's work to explore labour relations, family dynamics and issues of reproduction, to name a few, that began in the late 1970s and early 1980s in academia (Davalos 1998; McLaurin 2001; Russel y Rodriguez 1998). Similarly, feminist anthropologists doing ethnographic work built from social science practices to unpack how lesbian and gay identity alongside race, class, and/or sexual orientation shaped consciousness, identity and community' (Lamphere 2016: 50). While there is a trajectory of feminist ethnographic research by looking at feminist anthropological work, the hierarchies remain across academic fields, including those that involve plant research on cannabis.

It is not a mystery or hidden knowledge that structural oppressions combined with racial privilege shape western knowledge production that historically privilege white cisgender men.[2] Chicanx and Latinx scholars have challenged Eurocentric approaches to the study of plant and human relationship that are 'orientated toward British and Northern

2 See M.J. Berry et al., 'Toward a fugitive anthropology: Gender, race, and violence in the field', *Cultural Anthropology* **32** (4) (2017): 537–65.

European cultures not usually associated with LatinX epistemologies. It is associated, rather, with Anglo gentlemen who were eighteenth and nineteenth century amateur scholars of botany' (Guzman 2019). To understand the cultural and political relationships that Chicanx/Latinx and broader communities of colour have with plants, specifically cannabis, we need to understand the social context in which cannabis research and policy thus far, have not prioritised the experiences of communities most harmed from the criminalisation of cannabis. Simply put, while racially privileged people (i.e. white, rich, cis-gender and able-bodied) benefit from recreational cannabis policies that prioritise profits, there are communities of colour who continue to be criminalised for their associations with cannabis, whether it be through possession, cultivation or distribution.

Chicanx feminist scholars offer theoretical embodied knowledge as a challenge to harmful western epistemologies tied to how 'colonisation was a source of harmful fragmentation for Indigenous peoples of Mesoamerica and continues in the present day through racist colonial legacies that embed forgetting and misremembering. Yet our ancestors don't forget us. We remember when we work with plant medicine in balanced ways, alignment is possible when we listen for the remedies and healing they offer us' (Zepeda 2023: 124). The understandings of cannabis as medicinal and spiritual are tied to rituals and practices rooted in Indigenous practices that are often misunderstood in Western academia. For instance, in some Indigenous communities in Mexico, cannabis has been known as 'La Santa Rosa', the sacred rose, which is placed on an 'altar of the divine' alongside *antiquas,* 'ancient things' such as obsidian, incense pots, fragments of crystal, among other things like images of Catholic saints (Williams-Garcia 1975: 133). Cannabis is a sacred plant and 'companion of the ancient things' used by a curandera (healer) requires a daily offering of water and refreshments as a gesture of care and attention. This example of cannabis as a spiritual sacred plant in Indigenous and Mexican communities exemplifies a cultural embodied knowledge regeneration that is traditionally orally shared through storytelling or rituals.

Chicanx cannabis relationships understand that cannabis as a plant is medicine and has been used as a political tool shaped by social structures delineated by race, class, (dis)ability, immigration status, sexuality and gender. Critical cannabis understandings are made through

personal and collective discursive encounters that recognise cannabis as a subject of political contestation and social transformation in day-to-day experiences. This manifests in the ways we talk about cannabis beyond stigmatisation, where we choose to buy cannabis, when we engage with the plant as a relative and not a commodity and when we actively advocate for cannabis social justice. Contemporary mainstream cannabis knowledge lacks reciprocity and respect for plants beyond settler colonial logics of resources extraction. Reciprocity is missing in current iterations of cannabis relationships due to the lack of access to intentional land access. As one of my interviewees states: 'if we had land and we were growing this ourselves I don't think it would be such an issue' (Kuetzal interview excerpt). 'If we had land' nods to the idea that access to land to grow cannabis is one solution to address issues of miseducation, disconnection between people and land, loss of ancestral agricultural and medicinal knowledges, as well as profit-driven coaxing disguised as recreational policies that highlight tax revenue. Under settler colonial capitalist economies, land is thought of as property to be owned and not a relational being that shares its abundance. There is a dissonance between what we need to grow cannabis and giving Native communities their land back. Native communities' connections to the natural world have been ruptured due to 'an imposed logic emanating largely from the values and conventions of colonial descendants' (Turner, Spalding and Deur 2020: 4), such as owning land, which is enacted across the cannabis industry.

CONCLUSION

Human-plant relationships are currently tethered to extraction and profit, as is visible in the current cannabis industry. A capitalist cannabis industry means profit is the motivating factor for cannabis policy while social equity policies, that include reparations, are secondary priorities. The types of relationships we have with plants, especially cannabis, are a representation of the relationships we have with each other and Earth. My knowledge and analysis as a non-native, non-Black queer trans Chicanx scholar that honours the respective 'connections with plants and the places they grow have been ignored or downplayed by colonial governments and settler society' (Turner, Spalding Deur 2020: 5).

The cultural relationships that communities of colour have historically sustained with cannabis and other plants have been marked and impacted by settler colonial logics. Perspectives about plants have shifted through the colonisation of botanical epistemologies and ontologies, however, that does not mean they completely vanished. Chicanx and Latinx cannabis relationships address and resist contemporary cannabis politics that situate the cannabis plant as a commodity to profit from. Settler colonialism foregrounds heteropatriarchal whiteness as the norm, as a governance project (Simpson 2016) and as an ideological and material structure of dispossession by which to eliminate Indigenous nations. This enables the manipulations, exploitation and appropriation of cannabis knowledge with capitalist logics. Critical cannabis plant relationships need to embody resistance to settler colonial temporalities and politics that heal the disconnect from plant medicines.

Cannabis has the potential to remind us of the sacredness of plant medicine and also address the environmental harms perpetuated among BIPOC communities. Learning how to grow and take care of cannabis, as part of a cannabis education, addresses how the

> environmental crisis has resulted in an existential crisis; mending this breach in our relationship with land and plants requires that we continue to take steps toward coming back into balance with our ecosystem. From the reciprocal relationship we share with land and plants is born an awareness of our own life's ephemeral existence. For millennia, people have made sense of their own mortality in connection to the agricultural cycles (Medina and Gonzales 2019: 333).

Chicanx/Latinx people in the US are part of global communities who have historically shared 'their plant knowledge from generation to generation' (Cox and Balick 1994: 84) through healers, their apprentices and familial oral history traditions. Chicana/o/x communities have a long political, cultural and healing history with cannabis that has been rendered criminal. Chicanx cannabis analysis of cannabis relationships centres and prioritises Chicana/x and cannabis cultural knowledge and history to disrupt racist underpinnings of cannabis studies. Chicana/x cannabis ethnobotany pays attention to the historical, social and political narratives that have shaped the relationship with cannabis. A Chicana/x relationship with cannabis means it is holistic in its approach to wellness and medicine, and it is oriented towards social justice. Chicanx feminist research on cannabis relationships sits at the locus of an interdisciplinary Chicana/o studies trajectory and attempts

to ideologically bridge the foundations with cannabis and ethnic studies. As I argue, cannabis is part of critical cultural and historical political interventions in Chicanx and feminist studies because people are still in jail for engaging with cannabis, and its cultivation remains tethered to mainstream industrial mechanisms of extraction. The cannabis industry is under the grips of state-sanctioned profiteering that takes social justice and equitable practices as secondary or illusionary. This history of criminalisation is one aspect left out of conversation on cannabis plant relationships, one that requires an intersectional analysis highlighting how race, class, geography, gender, sexuality shape such relationships.

REFERENCES

Abrams, D.I. 1998. 'Medical marijuana: Tribulations and trials'. *Journal of Psychoactive Drugs* **30** (2): 163–169.

Aguilar-Hernández, J.M. and C. Cruz. 2020. 'Grounding emerging scholarship on queer/trans* Chicana/o/x and Latina/o/x pedagogies'. *Association of Mexican American Educators Journal* **14** (2): 5–22.

Aldama, A.J. and N.H. Quiñonez. 2002. *Decolonial Voices: Chicana and Chicano Cultural Studies in the 21st Century*. Bloomington: Indiana University Press.

Anzaldúa, G. 2022. *Borderlands/la Frontera: The New Mestiza.* Fifth Edition. San Francisco: Aunt Lute Books.

Anzaldúa, G. 2009. 'To(o) Queer the writer – loca, escritora y chicana'. In G. Anzaldúa and A. Keating (eds.), *The Gloria Anzaldúa Reader*, pp. 163–175. Durham: Duke University Press.

Anzaldúa, G. and A. Keating. 2015. *Light in the dark = Luz en lo oscuro: Rewriting identity, spirituality, reality*. Durham: Duke University Press.

Arvin, M., E. Tuck and A. Morrill. 2013. 'Decolonizing Feminism: Challenging connections between settler colonialism and heteropatriarchy'. *Feminist Formations* **25** (1): 8–34.

Balant, M., A. Gras, M. Ruz, J. Valles, et al. 2021. 'Traditional uses of Cannabis: An analysis of the CANNUSE database'. *Journal of Ethnopharmacology* **279** (114362).

Becker, H.S. 1953. 'Becoming a marihuana user'. *The American Journal of Sociology* **59** (3): 235–242'.

Benedict, G., A. Sabbagh and T. Conermann. 2022. 'Medical cannabis used as an alternative treatment for chronic pain demonstrates reduction in chronic opioid use – a prospective study'. *Pain Physician* **25** (1): E113–E119.

Bonnie, R.J. and C.H. Whitebread II. 1974. 'Alien Weed'. In *The Marihuana Conviction; A History of Marihuana Prohibition in The United States*, pp. 32–52. Charlottesville: University Press of Virginia.

Braitstein P., T. Kendall, K. Chan, E. Wood et al. 2001. 'Mary-Jane and her patients: Sociodemographic and clinical characteristics of HIV-positive individuals using medical marijuana and antiretroviral agents'. *AIDS* **15** (4): 532–533.

Calderón, D., D. Delgado Bernal, L. Pérez Huber, M. Malagón, et al. 2012. 'A Chicana Feminist epistemology revisited: Cultivating ideas a generation later'. *Harvard Educational Review* **82** (4): 513–529.

Campos, I. 2012. *Home Grown: Marijuana and the Origins of Mexico's War on Drugs*. Chapel Hill: University of North Carolina Press.

Cahuas, M.C. 2022. 'Voicing Chicanx/Latinx feminisms and situating testimonio in geographical research'. *Gender, Place & Culture* **29** (11): 1514–1527.

Cahuas, M.C., G. Douglass-Jaimes, C. Faiver-Serna, Y. González Mendoza, et al. 2023. 'Latinx geographies: Opening conversations'. *ACME An International E-Journal for Critical Geographies* **22** (6): 1462–89.

Caraves, J. 2020. 'Centering the "T": Envisioning a Trans Jotería Pedagogy'. *Association of Mexican American Educators Journal* **14** (2).

Clarke, R.C. and M.D. Merlin. 2013. *Cannabis: Evolution and Ethnobotany*. Berkeley: University of California Press.

Chaachouaya, N., A. Azerouala, B. Bencharkia, A. Douirab et al. 2023. 'Cannabis sativa L.: A review on traditional uses, botany, phytochemistry, and pharmacological aspects'. *Traditional and Integrative Medicine* **8** (1): 97–116.

Chavez, M.S. 2012. 'Autoethnography, a chicana's methodological research tool: The role of storytelling for those who have no choice but to do critical race theory'. *Equity & Excellence in Education* **45** (2): 334–48.

Craven, C. and D.A. Davis. 2013. 'Feminist activist ethnography'. In C. Christa and D.A. Davis (eds) *Feminist Activist Ethnography Counterpoints to Neoliberalism in North America*, pp. 1–22. Lanham: Lexington Books.

Cox, P.A. and M.J. Balick. 1994. 'The ethnobotanical approach to drug discovery'. *Scientific American* **270** (6):82–87.

Crocq, M.A. 2020. 'History of cannabis and the endocannabinoid system'. *Dialogues in Clinical Neuroscience* **22** (3): 223–28.

Cuevas, T.J. 2018. *Post-Borderlandia: Chicana literature and gender variant critique*. New Brunswick: Rutgers University Press.

Davalos, K.M. 2018. 'Review: Sin Vergüenza: Chicana feminist theorizing'. *Feminist Studies* **34** (1/2), *The Chicana Studies Issue* (Spring/Summer): 151–171

Davalos, K.M. 1998. 'Chicana/o Studies and Anthropology: The dialogue that never was'. *Aztlán* **23** (2): 13–45.

DeGuzmán, M. 2019. 'LatinX botanical epistemologies'. *Cultural Dynamics* **31**(1-2): 108–124.

Dicochea, P.R. 2004. 'Chicana critical rhetoric: Recrafting la causa in Chicana movement discourse, 1970–1979'. *Frontiers* **25** (1): 77–92.

Dillis, C., M. Petersen-Rockney and M. Polson. 2024. 'A theory of geo-social marginalization: A case study of the licensed cannabis industry in California'. *Journal of Environmental Management* **355**: 120396.

Duarte, M.E. and M. Belarde-Lewis. 2015. 'Imagining: Creating spaces for Indigenous ontologies'. *Cataloging and Classification Quarterly* **53**: 677-702.

Dudley, E. 2014. 'The nation's first marijuana raid likely happened in Los Angeles'. Off Ramp. 89.3KPCC. Published September 19. https://www.scpr.org/programs/offramp/2014/09/19/39399/the-nation-s-first-marijuana-raid-likely-happened/

Elkrief, L., G. Bastien, C. McAnulty, H. Bakouni, et al. 2023. 'Differential effect of cannabis use on opioid agonist treatment outcomes: Exploratory analyses from the OPTIMA study'. *Journal of Substance Use and Addiction Treatment* **149**: 209031–209031.

Elenes, C. A. 2000 . 'Chicana feminist narratives and the politics of the self'. *Frontiers: A Journal of Women Studies* **21** (3): 105–23. https://doi.org/10.2307/3347113

Espinoza, D. 2007. 'Chicana Movement'. In F. Malti-Douglas (ed.), *Encyclopedia of Sex and Gender: Culture Society History*, pp. 265–266. Detroit: Macmillan Reference USA.

Espinoza, D., M.E. Cotera and M. Blackwell (eds). 2018. *Chicana Movidas: New Narratives of Activism and Feminism in The Movement Era.* Austin: University of Texas Press.

Fordjour, E., C.F. Manful, A.A. Sey, R. Javed, et al. 2023. 'Cannabis: A multifaceted plant with endless potentials.' *Frontiers in Pharmacology* **14**: 1200269.

Galarte, F.J. 2021. *Brown Trans Figurations: Rethinking Race, Gender and Sexuality in Chicanx/Latinx Studies*. First edition. Austin, Texas: University of Texas Press.

Garcia, A.M. 1989. 'The development of Chicana feminist discourse, 1970-1980'. *Gender and Society* **3** (2): 217–38.

García Peña, L. 2020. 'Dismantling anti-blackness together'. *The Latinx Project and North American Congress on Latin America* (NACLA). Published June 8. https://www.latinxproject.nyu.edu/intervenxions/nbspdismantling-anti-blackness-together?rq=latinidad

Gieringer, D.H. 1999. 'The forgotten origins of cannabis prohibition in California'. *Contemporary Drug Problems* **26** (2): 237–288.

Gould, D. 2002. 'Life during wartime: Emotions and the development of ACT UP'. *Mobilization: An International Quarterly* **7** (2): 177–200.

Gude. Zoom Interview by Magaly Ordoñez. Conducted 15 March 2022.

Guerra, S.I. 2022. 'The drug war, drug reform and the Latinx community: An ethnographic perspective from the Texas-Mexico border and Colorado'. In A.M Dávila (ed.), *Albuquerque Ethnographic Refusals, Unruly Latinidades*, pp. 135–152. University of New Mexico Press.

Hall, K.Q. 2011. *Feminist Disability Studies.* Bloomington: Indiana University Press, 2011. https://primo.lib.umn.edu/permalink/f/1hd9g29/UMN_ALMA51828617790001701

Heidenreich, L. 2020. *Nepantla Squared: Transgender Mestiz@ Histories in Times of Global Shift.* Lincoln, Nebraska: University of Nebraska Press.

Hourfane, S., H. Mechqoq, A.Y. Bekkali, J.M. Rocha et al. 2023. 'A comprehensive review on cannabis sativa ethnobotany, phytochemistry, molecular docking and biological activities'. *Plants* **12** (6): 1245.

Hudak, J. 2016. *Marijuana as Enemy: Foreign and Domestic, in Marijuana: A Short History*, pp. 41–48. Washington DC: Brookings Institution Press.

Iftikhar, A., U. Zafar, W. Ahmed, M.A. Shabbir, et al. 2021. 'Applications of Cannabis sativa L. in food and its therapeutic potential: From a prohibited drug to a nutritional supplement'. *Molecules* **26** (24): 7699.

Johnson, N. 2017. 'Workers' weed: Cannabis, sugar beets and landscapes of labor in the American West, 1900–1946'. *Agricultural History* **91** (3):320–341.

Juan Ines. Zoom Interview by Magaly Ordoñez. Conducted 2 February 2022

Karuka, M. 2019 *Empire's Tracks: Indigenous Nations, Chinese Workers and the Transcontinental Railroad*. Berkeley: University of California Press.

Kuetzal. Zoom Interview by Magaly Ordoñez. Conducted 29 January 2022

Kun, J. and L. Pulido. 2014. 'Introduction'. In *Black and Brown in Los Angeles: Beyond Conflict and Coalition,* 1–30. Berkeley: University of California Press.

Lamphere, L. 2016. 'Feminist anthropology engages social movements: Theory, ethnography and activism,' In E. Lewin and L.M. Silverstein (eds), *Mapping Feminist Anthropology in the Twenty-First Century*. New Brunswick, New Jersey: Rutgers University Press.

Lucas, P. 2014. 'Rationale for cannabis-based interventions in the opioid overdose crisis'. *Harm Reduction Journal* **14**: 1–6.

Lyons, A.J., G. Kordas, E.T. Smith, M. Wilson, et al. 2023. 'Cannabis for healing in a native community clinic: Development and results from an informatics research tool'. *Journal of Psychoactive Drugs*:1–9.

McClaurin, I. 2001. 'Feminist self in anthropology: Toward an autoethnographic approach'. In *Black Feminist Anthropology: Theory, Politics, Praxis and Poetics*. Rutgers University Press.

McPartland, L.M. and Pruitt, P.L. 1997. 'Medical marijuana and its use by the immunocompromised'. *Alternative Therapies in Health and Medicine* **3** (3): 39–45.

Miranda, A.A. 2022. 'Ethnographic borders and crossings: Critical ethnography, intersectionality, and blurring the boundaries of insider research'. *Latino Studies* **20** (3): 351–67.

MJBizDaily. 2022. 'Special Report: Diversity, Equity & Inclusion in the Cannabis Industry'.

Moussawi, G. 2021. 'Bad feelings: On trauma, nonlinear time and accidental encounters in "the field'. *Departures in Critical Qualitative Research* **10** (1):78–96.

National Institute on Drug Abuse. 2024 'How does marijuana use affect school, work and social life?' *National Institute on Drug Abuse*, 25 May. https://archives.nida.nih.gov/publications/research-reports/marijuana/how-does-marijuana-use-affect-school-work-social-life

Ordoñez, M. 2024. 'Are cannabis social equity programs truly equitable?' 13 February, https://genderpolicyreport.umn.edu/are-cannabis-social-equity-programs-truly-equitable/

Ordoñez, M. 2024. 'Immigrant women in cannabis farming endure exploitation'. 14 May,

https://genderpolicyreport.umn.edu/immigrant-women-in-cannabis-farming-endure-exploitation/

Pelaez Lopez, A. 2018. 'The X in latinx is a wound, not a trend'. ColorBloq: *The Stories of Us. From the X Collection*. September. https://www.colorbloq.org/the-x-in-latinx-is-a-wound-not-a-trend

Pellow, D.N. 2021. 'Critical environmental justice studies'. In *Environmental Justice*. First edition, pp. 225–33. London: Routledge.

Pisanti, S. and M. Bifulco. 2018. 'Medical cannabis: A plurimillennial history of an evergreen' *Journal of Cellular Physiology* **234** (6): 8342-8351.

Prentiss, D. et al. 2004. 'Patterns of marijuana use among patients with HIV/AIDS followed in a public health care setting'. *JAIDS Journal of Acquired Immune Deficiency Syndromes* **35** (1): 38–45.

Reed, K. 2023 *Settler Cannabis: From Gold Rush to Green Rush in Indigenous Northern California.* Seattle: University of Washington Press.

Reed, K. 2018. 'Operation Yurok and the environmental impacts of marijuana in Yurok country'. *News from Native California* **31** (3) (Spring): 30.

Reinarman, C. and P. Cohen. 2007. 'Law, culture and cannabis: Comparing use patterns in Amsterdam and San Francisco'. In E. Mitch (ed.), *Pot Politics: Marijuana and the Costs of Prohibition,* 113–132. Oxford: Oxford University Press.

Rosic, T., R. Kapoor, B. Panesar, L. Naji, et al. 2021. 'The association between cannabis use and outcome in pharmacological treatment for opioid use disorder'. *Harm Reduction Journal* **18** (24): 1–9.

Russel y Rodriguez, M. 1998. 'Confronting anthropology's silencing praxis: speaking of/from a chicana consciousness'. *Qualitative Inquiry* **4** (1): 15–40.

Russel y Rodríguez, M. 2007. 'Messy spaces: Chicana testimonio and the undisciplining of ethnography'. *Chicana/Latina Studies* **7** (1): 86–121.

Sargent, M. 2022. 'Should you smoke weed out of an aluminium can?' CannaConnection. Lifestyle and Culture. Last updated, 18 November. https://www.cannaconnection.com/blog/11067-smoking-weed-with-aluminium-can-pipe-a-bad-idea

Schnabel, L. and E. Sevell. 2017. 'Should Mary and Jane be legal? Americans' attitudes toward marijuana and same-sex marriage legalization, 1988–2014'. *Public Opinion Quarterly* **81** (1): 157–172.

Simpson, A. 2016. 'The state is a man: Theresa Spence, Loretta Saunders and the gender of settler sovereignty'. *Theory and Event* **19** (4),

Siraj, J. 2022. 'Ethnobotany'. In S. Kumar (ed.), *Medicinal Plants*, pp. 29–50. London: IntechOpen.

Socías, M.E., E. Wood, S. Lake, S. Nolan, et al. 2018. 'High-intensity cannabis use is associated with retention in opioid agonist treatment: a longitudinal analysis'. *Addiction* **113** (12): 2250–2258.

Turner, N.J., P. Spalding and D. Deur. 2020 'Introduction: Making a place for Indigenous botanical knowledge and environmental values in land-use planning and decision making. In N. Turner (ed.), *Plants, People and Places: The Roles of Ethnobotany and*

Ethnoecology in Indigenous Peoples' Land Rights in Canada and Beyond, pp. 3–32 Montreal: McGill-Queen's University Press.

Valdez, A. and C.D. Kaplan. 2019. 'Deconstructing US marijuana prohibition policies in the early twentieth century: An intersectional theoretical approach' *Aztlan: A Journal of Chicano Studies* **44** (1):111–140.

Wiese, B. and A.R. Wilson-Poe. 2018. 'Emerging evidence for cannabis' role in opioid use disorder'. *Cannabis and Cannabinoid Research* **3** (1): 179–189.

Zepeda, S. 2023. 'Xicana/x Indígena futures: Re-rooting through traditional medicines'. *Feminist Formations* **35** (1): 117–31.

Magaly Ordoñez is a Latinx Sexualities Postdoctoral Fellow at the University of Utah. They completed their Ph.D. in Feminist Studies at the University of Minnesota, Twin Cities with minors in Heritage Studies and Public History and Race, Indigeneity, Disability, Gender and Sexuality Studies. Their dissertation, *Cannabis Spaces, Relationships and Relajos*, researched the experiences of Chicanx and Latinx LGBTQ+ communities that have contributed to cannabis cultural and political histories through feminist archival, ethnographic and mixed qualitative methodologies with emphasis on gendered and racialized social structures. Their research examines historical and contemporary cannabis culture in California, to understand how queer, of colour, cannabis histories and spaces refuse subversion to a capitalist cannabis industry by centring care, cannabis education and political advocacy. They argues that Chicanx/Latinx communities across California foster landscapes of political and cultural resistance within and beyond the limits of cannabis legality. Dr. Ordoñez is originally from Los Angeles, California and was raised in the immigrant neighbourhoods of Westlake/MacArthur Park, Pico-Union and Koreatown.

Email: mordonez110@gmail.com

Diego Molina

Secularise to Conserve. The History of the Wax Palm in Colombia

PLANT PERSPECTIVES 3/1 - 2026: 127–154
DOI: 10.3197/WHPPP.63845494909745
OPEN ACCESS CC BY 4.0 © THE AUTHOR

ABSTRACT

This paper explores the historical significance of the wax palm (*Ceroxylon quindiuensis*) in Colombia, focusing on its designation as the 'National Tree' in 1985 and the ensuing conservation efforts. Following this recognition, preserving the wax palm became crucial, necessitating a shift away from its traditional use during Palm Sunday of Holy Week. This process of secularisation involved collaboration among botanists who highlighted the palm's endangered status; the press, which disseminated scientific findings; and local environmental groups that led conservation campaigns. These efforts included an ecological narrative that emphasised the relationships between the wax palm and other organisms such as the yellow-eared parrot (*Ognorhynchus icterotis*), which relies on the wax palm for survival. The paper highlights how changes in the cultural symbolism of plants can influence their conservation, either leading to extinction or protection.

KEYWORDS

Wax palm, conservation history, religious ethnobotany, plant humanities, natural national symbols

INTRODUCTION[1]

On 16 September 1985, the Congress of the Republic passed a law adopting the wax palm (*Ceroxylon quindiuense*) as the Colombian national tree. The law did not specify the reasons that influenced the selection of this species from the rich plant inventory of the country. However, its four-point articles established certain measures for the palm's conservation. The law empowered the National Government, 'after the corresponding budgetary operations ... to acquire land in the central mountain range, which does not belong to the Nation, to constitute one or several national parks or flora sanctuaries in order to protect the national symbol and maintain it

1 This paper is a translation from Spanish of the paper 'De Fetiche Santo a Símbolo Patrio: La Transformación Histórica de la Palma de Cera en Colombia', *Historia Ambiental Latinoamericana y Caribeña HALAC* **13** (2) (2023): 248–80. Although this version is essentially the same as the original, it presents some changes in extension and focus in response to the suggestions and comments made by two anonymous reviewers.

in its natural habitat'. Likewise, and as a complementary measure, the bill strictly prohibited the felling of this species under penalty of arrest.[2]

The official recognition of the wax palm as the Colombian national tree followed a Latin American trend whereby, from 1920 onwards, different countries in the region had started to add plants to the inventory of national symbols, formed until then by flags, coats of arms and national anthems. For instance, the ahuehuete (*Taxodium distichum* var. *mexicanum*) was declared the national tree of México in 1921; and *Pinus oocarpa*, known as *pino ocote*, became the Honduran national tree in 1927. A few decades later, more precisely in 1959, Costa Rica named the *guanacastle* (*Enterolobium cyclocarpum*) as its national tree.[3] In contrast to the well-known stories revolving around iconographic national symbols (i.e. flags and coat of arms),[4] the incorporation of species of plants in the catalogue of Latin American national emblems has received little attention.[5]

Using archival material, in this paper, I explore how the official recognition of the wax palm as the Colombian national tree disincentivised its symbolic use linked to religious ritual, and how this symbolic shift was key in subsequent conservation efforts. In doing so, this paper offers a temporal perspective on the cultural dimension of trees, which although well studied in different social and ecological contexts, has, with some exceptions, been a theme rarely considered from a historic

2 Gobierno de Colombia 'Ley 61 de 1985, por la cual se adopta la palma de cera (*Ceroxylon Quindiuense*) como Árbol Nacional' [Bill 61 through which the wax palm is adopted as the National tree], *Sistema Único de Información Normativa*: http://www.suin-juriscol.gov.co/viewDocument.asp?ruta=Leyes/1614170 (accessed 10 Oct. 2023).

3 C. González, 'Los Árboles y Las Flores Como Emblemas Nacionales En Países de América Latina y El Caribe: México y Países de América Central' [Trees and Flowers as National Emblems in Latin American and Caribbean Countries: Mexico and Central American Countries], *Revista Del Jardín Botánico Nacional* **32/33** (2011): 239–46.

4 N. González, 'The formation of political traditions and national symbols in nineteenth-century Latin America', *Romance Studies* **35** (1) (2017): 59–72, https://doi.org/10.1080/02639904.2017.1306334

5 Most of the publications on this matter address national trees from a descriptive perspective without considering the cultural processes present in the selection of certain species in different countries – see for instance González, 'Los Árboles y Las Flores Como Emblemas Nacionales En Países de América Latina y El Caribe'.

perspective.[6] Analysing the different meanings of the wax palm in the history of Colombia offers a case study that enables us see how symbolic dimensions of trees change alongside social transformations that occurred during specific periods of time.

To understand the transformation of the wax palm in the imaginary of the Colombian nation, this article starts by briefly exploring the scientific discovery of the wax palm in the nineteenth century. Next, I present some of the common uses of this palm that granted this species special cultural status in the Andean region of Colombia. I emphasise the ritual use of these palms as the source of blessed bouquets for Palm Sundays, intensively used during the Catholic celebration of the Holy Week. Lastly, the central part of the paper explores how the recognition of the wax palm as Colombia's national tree in the 1980s triggered a resignification of this species consisting in its secularisation and later transformation into a conservation object, a process that was partially led by Colombian botanists.

THE DISCOVERY OF THE WAX PALM BY SCIENCE

Palms are not trees. Like grasses and lianas, palms are particular life forms grouped in the botanical family Arecaceae. With 3,645 species, this plant family is almost strictly confined to the tropics, and especially to the lowlands where its maximum species diversity is found. However, the wax palms belonging to the botanical genus *Ceroxylon* represent a unique case within the palm universe. Unlike most species of this family, which are usually found in the lowlands and midlands of the tropics, the eleven species of *Ceroxylon* grow in the cold highlands of the tropical Andes in Venezuela, Colombia, Ecuador and Peru. In the particular case of the Quindío wax palm (*Ceroxylon quindiuendis*), although there is an isolated population in northern Peru, it is distributed almost

6 Douglas Davies' work, *The Evocative Symbol of Trees*, is a seminal exploration of the symbolic significance of trees. While the literature on this topic is extensive, including diverse themes as presented in Sarah Johnson's edited volume *Trees*, there remains a gap in understanding the dynamics that have shifted perspectives on trees over time, see Douglas Davies, 'The evocative symbol of trees', in Denis Cosgrove and Stephen Daniels (eds), *The Iconography of Landscape: Essays On The Symbolic Representation, Design And Use Of Past Environments: 9* (Cambridge: Cambridge University Press, 1988), pp. 32–42; Sarah Johnson (ed.), *Trees*, Themes in Environmental History, v.5 (Knapwell, Cambridge: The White Horse Press, 2015).

exclusively in the mountains of the three Andean ranges of Colombia at altitudes above 2,000 metres. One of the most outstanding features of this species is that it can reach heights of more than fifty metres, making it one of the largest palm species on the planet.[7]

The botanical rarity of the wax palm soon caught the attention of eighteenth- and nineteenth-century naturalists. José Celestino Mutis, appointed by Charles III as leader of the Royal Botanical Expedition to the New Kingdom of Granada, reported the existence of this palm. In a letter of 1781 to the Swedish naturalist Carolus Linnaeus, Mutis states that, although he had never seen them, he knew of some palms 'that have tallow and wax'.[8] Shortly after Mutis, the wax palm gained botanical recognition with the collections made by Aimé Bonpland and Alexander von Humboldt in 1801. Upon their arrival in Europe, Humboldt and Bonpland selected a collection of *Ceroxylon* from the Quindío in Colombia to present first to the academies of the Institute of France (National Academy of Art, Humanities and Science). Their choice to present the wax palm as the icon of their travel was driven by the unique geographical distribution of this species considered by them as 'an extremely striking phenomenon of plant geography'.[9] However, the uniqueness of the wax palm is more evident in the world of the French traveller Charles Saffray. In his 1861 travel chronicle published ten years later in the magazine *Le Tour du Monde*, Saffray observed how:

> Everything is particular about this tree; it might be said to have been created for the scorching shores of the Pacific, but it also inhabits temperate or cold climates, and thrives in the mountains of Quindío and Tolima, between eighteen hundred and two thousand nine hundred metres above sea level. Where plants would seem to be less sensitive to cold, or would take on a stunted form, the one I am talking about has a fifty-metre-high stipe, a graceful and elegant column crowned by a vast capital of tufts.[10]

7 M. Sanín and G. Galeano, 'A revision of the Andean wax palms, *Ceroxylon* (Arecaceae)', *Phytotaxa* **34** (1) (2011): 1–64, https://doi.org/10.11646/phytotaxa.34.1.1

8 S. Madriñan and R. Schultes, 'Colombia's national tree: *Ceroxylon quindiuense* and its relatives', *Eleaeis* **7** (1) (1995): 35–56.

9 M. Dettelbach, 'The stimulations of travel: Humboldt's physiological construction of the tropics', in F. Driver and L. Martins (eds), *Tropical Visions in an Age of Empire* (Chicago: University of Chicago Press, 2005), pp. 43–58.

10 C. Saffray, *Viaje a Nueva Granada* [Travel to the Nueva Granada], trans. Ricardo Pardo, Biblioteca Popular de Cultura Colombiana (Bogotá: Ministerio de Educación Nacional, 1948), p. 279.

Despite the particularities of the wax palm, identifying its taxonomical position within the Linnean classification system was not an easy task. After a series of taxonomic amendments and discussions involving prominent naturalists such as Jean-Baptiste de Lamarck and Augustin de Candolle, the botanical genus was given the name *Ceroxylon*, initially proposed by Bonpland because the species produced wax (*cera* in Latin). However, the mismatch between the plant's description in travel accounts and botanical collections created a taxonomic conundrum that was only resolved in 1976 when botanists Harold E. More and Anthony Anderson, after analysing abundant evidence, concluded that two species of wax palm coexisted in the Quindío mountains: *Ceroxylon alpinum*, growing between 1,500 and 2,000 metres altitude, and the larger *Ceroxylon quindiuense*, growing between 2,000 and 3,000 metres.[11]

THE PALM'S WAX

The initial encounters of Europeans with this palm did not only highlight its biological characteristics. Its stem, covered with a useful resin, was one of its most talked-about characteristics. At an early stage of the conquest of the American continent by Europeans, Captain D. Bernardo de Vargas Machuca in his book on warlike matters in the Indies mentions that, among the 'fruitful trees that grow in the mountains without profit', there are palms that 'produce a white resin that when melted with a little wax stirred together, axes and candles are made from it'.[12] The extent of the use of palm wax in colonial times is not clear. However, José Celestino Mutis, in 1785, showed interest in what he explicitly called the 'new branch of extracting palm wax' and through a collaborator received a sample of the inflorescences of the palm accompanied by a description observing how

11 On the taxonomic conundrum of the wax palm and the botanists involved, see Armando Dugand, 'Palmas de Colombia: Clave Diagnóstica de Los Géneros y Nomina de Las Especies Conocidas' [Palms of Colombia: Diagnostic Key to the Genera and List of Known Species], *Caldasia* **1** (1) (1940): 20–84; Miriam Bomhard, '*Ceroxylon Ferrugineum* André, the Salento Waxpalm', *Journal of the Washington Academy of Sciences* **33** (1) (1943): 1–8.

12 D. Bernardo De Vargas Machuca, *Milicia y Descripción de Las Indias* [Militia and Description of the Indies]. *Reimpreso Fielmente Según La Primera Edición Hecha En Madrid En 1599* (Madrid: Librería de Victoriano Suarez, 1892), p. 107.

> The palm that gives the wax is the one that was known here by the name of *Chuapa*, as tall and taller than the tallest coconut palm. All the surface of its trunk is scraped and the dust collected is used to produce the wax.[13]

William Purdie, a Scottish 'plant hunter' who travelled through Colombia in 1846, left interesting evidence about the extraction of the resin from this palm. Purdie says that, according to the information obtained by his guides, 'to obtain the wax the tree is felled'. That the palm was felled, as Purdie mentioned, runs counter to the iconographic evidence left by fellow plant hunter Édouard André. Accompanying his travel account published in *Le Tour du Monde* there is an engraving showing a man climbing on the palm while scraping its resin (Figure 1). While these two versions are not necessarily mutually exclusive, they clearly signify two distinct ways of relating to the palm that merit further study, which is beyond the scope of this research. After cutting down the palm, Purdie revealed that 25 pounds of wax were obtained from each tree felled and that, in a day's work, a man could fell and scrape two trees, i.e. fifty pounds. Similarly, obtaining the resin from the palms does not seem to have been an isolated event. Purdie himself notes that 'after being scraped [the wax] is simply melted and poured into *calabazos* [pots made of calabash skin] for use by villagers in the vicinity of the Tolima mountain range. It is sold in the city of Ibagué at the foot of the Quindío at three pence or half a real a pound; it is in considerable demand, but is abundant and easy to obtain'.[14]

The resin obtained from the palms, and particularly from *C. quindiuensis*, was widely used in the production of candles that supplied the lighting needs of rural populations until the electrification of their settlements.[15] Additionally, palm wax candles played a role in the illumination of religious services of the Catholic Church whose canons had

13 J. Mutis, *Diario de Observaciones de José Celestino Mutis (1760-1790)* [Diary of Observations of José Celestino Mutis (1760-1790)], vol. II, Instituto Colombiano de Cultura Hispánica. Compilado por Guillermo Hernández de Alba. Colección José Celestino Mutis: 1-2 (Bogotá: Editorial Minerva, 1958), p. 665.

14 S. Díaz, *La palma de cera, árbol nacional* [The wax palm, national tree], (Credencial historia n. 39) https://www.banrepcultural.org/biblioteca-virtual/credencial-historia/numero-139/la-palma-de-cera-arbol-nacional (accessed 30 Aug. 2022).

15 E. Pérez-Arbeláez, *Plantas Útiles de Colombia* [Colombian useful plants], 4a. ed (Santafé de Bogotá: Litografía Arco, 1978), p. 570.

FIGURE 1.

Taylor and A. Ferdinandus (after sketch by É. André). Extraction of palm wax, 1878. Source: Édouard André, 'L'Amérique Équinoxiale (Colombie-Équateur-Pérou),' *Le Tour Du Monde. Nouveau Journal Des Voyages* (Paris: Hachette, 1879), p. 102.

forbidden the use of candles made of tallow in the liturgic ceremonies.[16] Purdie wrote that, in the Andean region of Colombia today, palm wax was used in the making of 'candles to be offered to the saints and the Virgin [in church]'. However, although wax palm candles represented an alternative to those made out of tallow, and despite Purdie mentioning that wax from palms was 'easy to obtain', supply of the quantities needed to produce candles for commercial purposes seems to have been limited.[17] As a result, the illumination of churches near the wax palms was based on importation of the not very economical beeswax. Some years later, in 1857, the Scottish botanist, journalist and Presbyterian minister, Isaac Holton, observed that beeswax already made into candles was sold at an 'extravagant' price of three dollars per pound.[18] Although candles made from palm wax might have had only a marginal role in Catholic rituals, its use as a blessed bouquet gave this species a unique symbolic position within Colombia's symbolic repertoire.

THE 'RAMO BENDITO' (PALM SUNDAY BLESSED BOUQUET)

A key element in the history of the wax palm in Colombia is the use of its leaves in the Holy Week bouquets. According to the Gospels, on the Sunday before being crucified, Jesus Christ made his public entry into Jerusalem. According to John (12:12–13), a crow awaited him, acclaiming him as the Son of God and welcoming him with 'branches of palm trees'. The use of palm branches as a greeting seems to have been part of a long tradition. In the Old Testament book of Maccabees, the Hebrew leader Simon is received in Jerusalem 'with thanksgiving and palm branches'.[19] As recognised by various works addressing the botany of the Bible, the palm of this holy book was the Date palm (*Phoenix*

16 D. Sugrañes, *Guía del clero en las divinas alabanzas, ó sea, Explicación de las rúbricas del rezo divino: según el breviario romano y decretos de la sagrada congregación de ritos* [Guide of the clergy in divine praises] (Barcelona: Imprenta de los Herederos de la V. Pla, 1857).

17 Madriñan and Schultes, "Colombia's national tree', 41.

18 I. Holton, *New Granada. Twenty Months in the Andes* (New York: Harper & Brothers, 1857), p. 365.

19 'Bible Gateway', 1 Marcos 21, Macabeos 13, https://www.biblegateway.com/passage/?search=1%20Macabeos%2013&version=DHH (accessed 1 Aug. 2022).

dactylifera), abundant in today's Palestine and a recurrent motif among different cultures historically settled there.[20]

Turned into a symbol of the 'triumph and victory' of Christ,[21] the fronds of palms would become entrenched within the rituals of Holy Week in the Catholic world. Recognised as *Dominica in Ramis Palmarum,* this tradition expanded wherever the Catholic religion rooted, in spite of the fact that, in many regions, the availability of palm branches was null or scarce. In the case of England, for instance, in his 1873 *Natural History of the Bible*, H.M. Tristram observed how parishioners carried branches of willows and called them 'palms'.[22] Tropical America hosts most of the species of palms in the world; hence, once the Catholic religion was transplanted into this region with the European invasion of 1492, the use of fronds of palms as part of the Holy Week bouquets was restored. With 231 species, Colombia has the highest diversity of palms on the planet.[23] It is not surprising, then, that other species of palms have also been historically used in this celebration. This is especially true in lowlands where wax palm does not grow. However, in the Andean region, which is the most populated of the country, the palms of the *Ceroxylon* botanical genus were widely used as a blessed bouquet

20 Palm trees and leaves were used as motifs by King Salomon in Temple engraving and sculptures. In the Capearnum synagogue, some friezes have been found on which are carved palm branches (3rd century BC). The Maccabees (2nd century BC) used the palm as the emblem of victory on their coin, while Roman coins of the first Century AD depicted a woman seated under a palm in an image for the captured Judea – see Michael Zohary, *Plants of the Bible* (Cambridge: Cambridge University Press, 1982), p. 60.

21 Eugenio Arias, *Explicación de Los Oficios de Semana Santa, Sacada de Varios Autores Aprobados Por La Iglesia* [Explanation of the Holy Week Services, Taken from Various Authors Approved by the Church] (Medellín: Editorial Católica, 1933), https://bibliotecapiloto.janium.net/janium-bin/janium_zui.pl?fn=36264&jzd=/janium/Documentos/AP/BPP-D-XIX-0109/d.jzd

22 H.B. Tristram, *The Natural History of the Bible: Being a Review of the Physical Geography, Geology, and Meterology of the Holy Land: With a Description of Every Animal and Plant Mentioned in Holy Scripture*, 3rd ed., rev. corrected (London: R. Clay, sons and Taylor, 1873), p. 383.

23 On Colombia's species of palms, see Gloria Galeano and Rodrigo Bernal, *Palmas de Colombia: Guía de Campo* [Palms of Colombia: Field Guide] (Bogotá: Universidad Nacional de Colombia, 2010), p. 53.

FIGURE 2.
Gabriel Carvajal, *Domingo de Ramos* [Palm Sunday], 1973, 6x9 cm.
Source: Courtesy of Archivo Fotográfico Biblioteca Pública Piloto, Medellín BPP-F-018-0102.

in the Palm Sunday celebration (Figure 2).[24] Nonetheless, to this day, the underlying reasons why the fronds of the wax palm were turned into a religious object are still not clear.

24 In 1943, the botanist Lorenzo Uribe noted in his book on the teaching of botany that another Andean cold forest palm called *palma zancona* (*Prestoea acuminata*) 'supplies the palms for Palm Sunday', Gloria Galeano and Rodrigo Bernal explain in their Field Guide to the Palms of Colombia that this species is used as a blessed bouquet in the southern region of Colombia where 'large populations of this palm are intensively harvested each year during this season'; Édouard André, garden designer and 'plant hunter', on his visit to Cali in 1876, observed how in this region 'young fronds' of *Attalea butyracea* were used for this religious celebration – see Uribe, *Botánica. Texto Para Bachillerato Conforme Con El Programa Oficial* [Botany. Text for Baccalaureate in accordance with the official syllabu] (Bogotá: Editorial Libreria Voluntad, S.A., 1943), p. 244; André, 'L'Amérique Équinoxiale (Colombie-Équateur-Pérou)', *Le Tour Du Monde. Nouveau Journal Des Voyages* (Paris: Hachette., 1878), p. 136; Galeano and Bernal, *Palmas de Colombia*, p. 507.

One of the first mentions of the use of *Ceroxylon* fronds as a blessed bouquet comes from an untitled novel published in 1860 in the newspaper *El Mosaico*. In the novel, two characters attending the theatre discuss the existence of palms that are in their way. One of them, called Pablo, remarks: 'You see, Señor Don Diego, what a beautiful palm tree', in response to which his companion asks: 'really, and what palm is that?' Pablo then gives a botanical lesson on the Andean *Ceroxylon*, citing Humboldt as a source of information. His interlocutor then inquires 'And where do you see that palm?', to which Pablo replies, 'Every year you see its leaves in the Palm Sunday processions'.[25] This direct mention of the use of the wax palm in Holy Week celebrations indicates that, by the middle of the nineteenth century, this type of plant was already under some degree of exploitation linked to its ritual uses. This is so despite the fact that many Bogotanians were unable to link the palms they saw in parks with the bouquets used in the religious celebration.

Despite having plots, patios and areas covered with spontaneous vegetation,[26] photographic evidence from early twentieth century suggest that parishioners did not use other types of branches (see Figure 3). Consequently, the use of palms, at least in the growing urban environments of Colombia, depended to a large extent on those rural inhabitants who conserved the ethnobotanical knowledge necessary for the extraction of branches. The celebration of Palm Sunday, then, acted as a pole of attraction not only for people close to the population centres who attended the liturgical celebrations, but also for those who travelled to sell the *Ceroxylon* fronds.[27] In 1955, Eduardo Santa, in his article 'A

25 'Las Palmas (Fragmento de Una Novela)' [Palms (Fragment of a Novel)], *El Mosaico, Albúm Neo-Granadino*, 10 Nov. 1860.

26 Diego Molina, 'Urban spaces, plants, and people in the nineteenth-century Bogotá, Colombia, *Economic Botany* **75** (3–4) (2021): 268–86, https://doi.org/10.1007/s12231-021-09524-5

27 Until their industrialisation, Latin American cities relied heavily on the extraction and commercialisation of plant and animal resources from the countryside and various nearby ecosystems. An important and often overlooked part of this process was the deep vernacular biodiversity knowledge held by peasants/vendors who supplied the city with a wide variety of natural products, see M. Karasch, 'Proveedores, vendedores, sirvientes y esclavos' [Suppliers, sellers, servants and slaves], in L. Hoberman and S. Socolow (eds), *Ciudades y sociedad en Latinoamérica colonial* [Cities and society in colonial Latin America], Sección de obras de historia (Argentina: Fondo de Cultura Económica, 1993), pp. 287–330.

Week in the Village' about Holy Week in Medellín (Colombia), observes how

> Today is Palm Sunday. The village has dawned with the joy of a humid morning ... The peasants have already begun to arrive in the village with the vegetable treasury of their palms, which are spreading a soft perfume, a delicate aroma. It is the scent of the *sierra*.[28]

In this case, the *sierra* [the mountain] is what the city is not, from where the peasants mentioned by the author extracted the palm branches.

Due to their symbolic importance, Holy Week celebrations were profusely photographed, leaving us documentary evidence of the religious use of wax palm fronds during the first decades of the twentieth century. Judging by the quantity of bouquets sold in a single Bogotá market in 1945 (Figure 3), it is possible to speculate that, by then, the extraction of palm fronds to supply religious demands must have had a significant ecological impact on the palm populations. As recognised later by botanists, the extraction of the young fronds of these palms halts the development of immature individuals, undermining the natural population.[29] Although data on this seasonal market are not available, current data from Ecuador, where the use of wax palms (*Ceroxylon alpinum* and *C. echinulatum*) is still current, may shed light on this issue. In Ecuador, palm leaf collection begins three weeks before Palm Sunday. Using data from 2009, Ecuadorian researchers reported that each harvester collects 160 buds per day, and at the end of the harvesting period can reach 3,000 buds, which represents a market of approximately half a million dollars.[30] Given the demographic differences between Quito today and Bogotá in Figure 2, it is impossible to directly compare the data. However, the information from Ecuador gives an indication of the extent of this extractive practice and its possible ecological consequences.

28 E. Santa, 'Una Semana Santa en la Aldea' [A Holy Week in the Village], *Lanzadera (Fábricas Del Coltejer)*, April 1955.

29 Gloria Galeano and Rodrigo Bernal, 'Las Palmas de Cera En Peligro de Extinción' [Wax Palms In Danger of Extinction], *Colombia: Ciencia y Tecnología* **2** (2) (1984): 26–27.

30 R. Valencia et al., *Palmas ecuatorianas: biología y uso sostenible* [Ecuadorian palms: biology and sustainable use] (Quito: Herbario QCA de la PUCE, 2013), p. 127.

FIGURE 3.
Venta de ramos [Sale of Palm Sunday Bouquets in Bogotá], 1945.
Source: Courtesy of Museo de Bogotá (Mdb) Fondo Daniel Rodríguez, Mdb 16743.

The impact on wax palm populations went unnoticed during the first half of the twentieth century, when environmental concerns were not part of the social discussion. However, this practice must have had obvious effects on palm populations. In contrast with trees and bushes, where trimming can lead to robust growth, the removal of photosynthetic structures (namely fronds) in palms slows the growth of young individuals, causing the shrinking of a population whose individuals require more

than seventy years to start their reproductive cycle.[31] But leaf removal alone does not explain the reduction in the populations of this species. Another reason was that, despite their durability, the blessed bouquets were not generally reused every year. As dictated by the Catholic tradition, a few days before Lent, the parishioners were supposed to deliver the bouquet blessed during the previous Holy Week, which, once in the church, was reduced to ashes to be used in the imposition of the cross on Ash Wednesday. In this ritual, the priest marks a cross with ashes (from the blessed bouquets) on the forehead of the parishioners forty days before Holy Week as a symbol of the fasting, abstinence and penance associated with the celebration of Lent. The incineration of blessed bouquets forced parishioners to buy a new one every year, which naturally meant a systematic extraction of *Ceroxylon* fronds.

Between its blessing and its delivery to the church to produce ashes, the bouquet was used as a mystical object of protection. The *Christian Community* primer produced by the Ministry of National Education in 1987 states how so-called 'Popular Religious Customs' included, among others, taking the blessed bouquet home as 'a symbol of Christ's triumph in our daily lives'.[32] However, along with being a representative element of Christ's triumph, the blessed bouquet was ascribed magical characteristics that appear recurrently in novels and tales. For example, Medardo Rivas, in his 1946 novel *Los Trabajadores de Tierra Caliente* [The lowland workers], provides a curious example of the use of the bouquet as a magical amulet. Rivas recounts that he had set out to access the hidden riches that 'primitive Indians' had deposited in a lagoon near the village of Guataquí. Given that these riches were guarded by a kind of monstrous divinity called the Mohán, Rivas was accompanied by a group of people who, encouraged by the desire for treasure, set out to confront the monster. Rivas then comments that, among his companions, 'some carried spears, others shotguns, most of them machetes; and the women rosaries, scapulars and *blessed bouquets*' [emphasis added].[33] The blessed branch was thus used to fight against dark forces and natural phenomena. The palm frond hung in the window is used to

31 Galeano and Bernal, *Palmas de Colombia*, p. 34.

32 Ministerio de Educación Nacional, *Comunidad Cristiana* [Christian Community], 12th ed. (Bogotá: Editorial Andes, 1987), p. 12.

33 M. Rivas, *Los Trabajadores de Tierra Caliente* [Lowland's Workers] (Bogotá: Prensas de la Universidad Nacional, 1946).

ward off thunderstorms,[34] while its presence in the domestic space keeps enemies away. The presbyter Eugenio Arias Álzate observes how:

> In any place where these blessed bouquets were, those who inhabit the houses get God's blessing, the common enemy is driven away, the storms flee the fields and the enemies of the world are defeated, as happened to Charles II king of France, with the palm sent to him by Pope John VIII, with which he defeated, not only the visible enemies of his crown, but also the invisible ones.[35]

In 1992, a press article on the relationship between the wax palm and the blessed bouquet sums up the magical use of the palm frond well: 'Apart from the solemn homage to Christ, the blessed palm has for centuries been for Catholics like an additional saint. It is a shield against storms, evil spirits and fears. The blessed bouquet frightens the devil, and is even good as a remedy'.[36] The bouquet blessed each Holy Week became a powerful amulet, that, despite its potential durability, was reduced to ashes every year. Repeated annually, the extraction of palm fronds would systematically affect the populations of this botanical rarity. Already evident at the end of the twentieth century, the possible extinction of the wax palm would eventually contribute to its resignification as a national tree.

THE IMPLICIT USE OF WAX PALM AS THE COLOMBIAN NATIONAL TREE

In addition to its use in the religious celebration of Holy Week, after independence from Spain, wax palms also began to be considered an emblem of the young nation. In the same fragment of the aforementioned unnamed novel published in *El Mosaico* in 1860, one of the characters points out:

> I have a project concerning palms for when they make me alderman of the Cabildo, and that is to move the market square to another location and to enclose an area with iron grilles around the statue in Bolívar square and to

34 On the use of the Palm Sunday bouquet to fight thunderstorms, see Francisco de Paula Rendon, *Inocencia* [Innocence] (Bogotá: Editorial Minerva, 1900), p. 10. https://babel.banrepcultural.org/digital/collection/p17054coll10/id/2519/rec/65

35 Arias, *Explicación de Los Oficios de Semana Santa*, p. 8.

36 Redacción, 'Sustitución del Ramo' [Bouquet Replacement], *El Tiempo*, 10 April 1992, sec. archivo: https://www.eltiempo.com/archivo/documento/MAM-89779.

> plant eighty or a hundred wax palms there and then many of the most exquisite Andean plants. Don't you think that's good, Don Diego? [To which his counterpart replied] 'Magnificent! The hero of the Andes! A monumental statue adorned with monumental palms!' [37]

The character's words were almost prophetic. As part of the modernisation of Bogotá, the old colonial squares were landscaped and the local elites opened parks.[38] Decorated with statues of patriotic heroes and with ornamental plants, these gardens gave the city its symbolic status as the centre of the republic. Within the plant repertoire chosen to ornament the city, wax palms occupied a privileged position. Introduced to the city in the mid-nineteenth century by Zenón Padilla, wax palms acquired a special national status above many other species of the diverse Andean flora. In the 1880s, the Plaza de Bolívar [Bolívar Square], the symbolic centre of the nation, was transformed into a garden; there, the self-taught gardener Casiano Salcedo planted at least one palm around the figure of Bolívar. A few decades later, the palm was already part of the capital's urban flora. When in 1910, the conservative government inaugurated the Parque de la Independencia [Independence Park] to mark the 100th anniversary of independence from Spain, wax palms played a central role in its ornamentation (Figure 4).[39]

The implicit and non-official use of the wax palm as a national symbol began to solidify four decades later. In the mid-twentieth century, Colombian botanists examined possible options that could serve as the national tree. According to botanist Enrique Pérez Arbeláez, this species had to meet the condition of being easily adaptable to other climates since the idea of having a national tree was to send it as a 'vegetal diplomat' to be planted around the globe. Among the candidates for diplomatic duty, Arbeláez first proposed the pomegranate (*Punica granatum*), noting that 'Nueva Granada was the name by which our homeland entered international life'. In a country where the Andes had been the source of most symbols (e.g., the Condor in the Coat

37 'Las Palmas (Fragmento de Una Novela)'.

38 Diego Molina, *Planting a City in the Tropical Andes: Plants and People in Bogotá, 1880 to 1920*, Routledge Research on Gardens and History (New York, NY: Routledge, 2025).

39 J. García, 'Bogotá Ahora Medio Siglo' [Bogotá Half a Century Ago], in N. Bayona (ed.), *El Alma de Bogotá*, 2nd ed., Biblioteca de Bogotá (Bogotá: Villegas Editores, 1988), pp. 170–71.

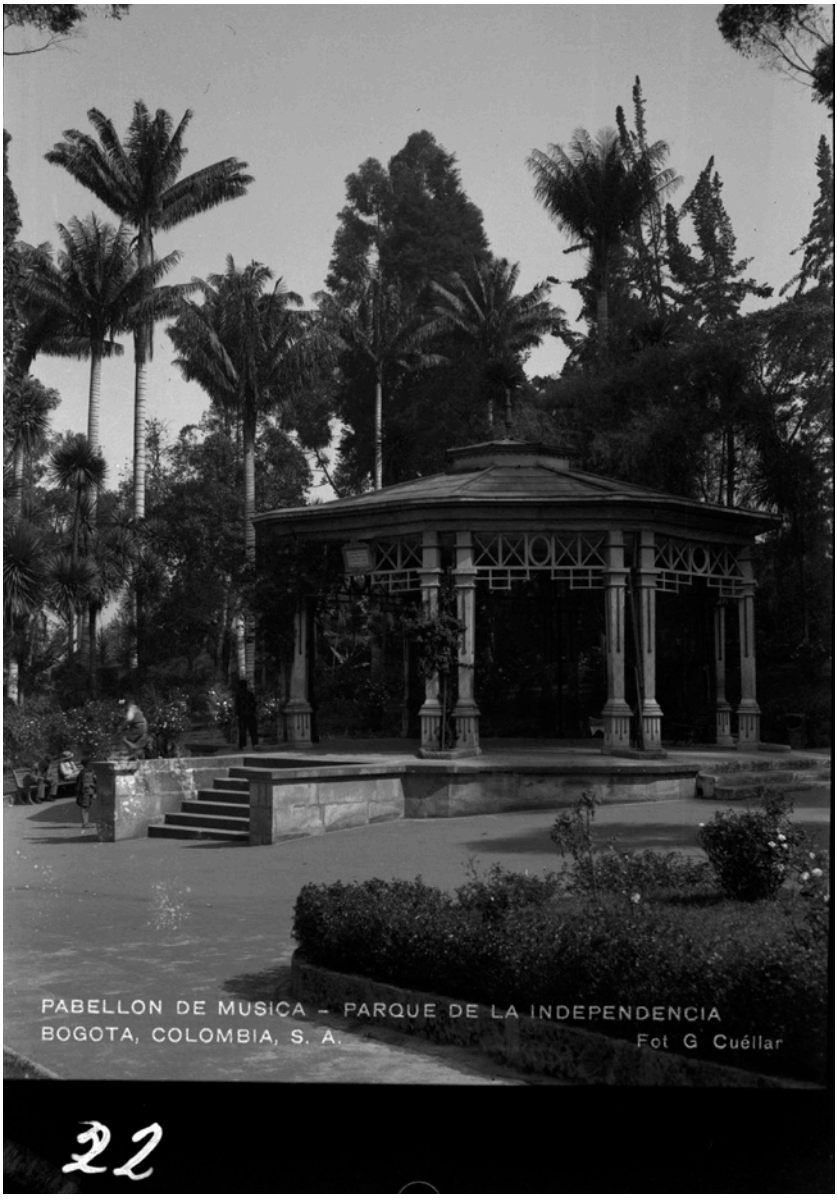


FIGURE 4.

Gumercindo Cuéllar, Wax palms at the Independence Park, 1930, negative 9x13 cm. *Source:* Courtesy of Biblioteca Luis Ángel Arango (BLAA), Colección Fotográfica Gumercindo Cuéllar, FT1414.

of Arms), Pérez Arbeláez interestingly also included in his list lowland tropical trees such as the cashew (*Anacardium excelsum*), jacaranda (*Jacaranda* sp.), erythrina (*Erythrina poeppigiana*), coral tree (*Erythrina fusca*), yellow trumpet tree (*Handroanthus chrysanthus*), and the divi-divi (*Libidibia coriaria*). However, Pérez Arbeláez emphasises the selection of large species as the national tree and mentions that in his 'concrete opinion', the best species would be some of the palm species such as *Syagrus sancona*, *Attalea butyracea*, *Attalea maripa*, and the wax palm of Quindío (*Ceroxylon quindiuense*).[40]

A year later, botanist Armando Dugand also leaned towards the wax palm among the multiple options proposed by Pérez Arbeláez. At the Third Latin American Botanical Congress, Dugand officially proposed the wax palm, highlighting the botanical singularity and usefulness of this species:

> The wax palm as a true aesthetic heritage of the nation and as one of the most typical floristic notabilities of Colombian vegetation, not only because it is a prominent and characteristic element of the Andean landscape but also because of the wax it produces, the extraordinariness of its habitat, which widely exceeds the common geographical-altitudinal limits in the palm family, besides being the most beautiful and tallest within the genus, since it can exceed 50 metres in height. [41]

From the 1970s, the wax palm begins to appear within the iconographic ensemble representing the nation. It thus appears in multiple writings, records, documents and postage stamps (see Figure 5). By the end of that decade, the palm is already widely recognised by the intellectual and political elite as a botanical symbol of Colombia. In 1979, the national government, through Colcultura, an organisation then affiliated with the Ministry of National Education, published an album compiled by Joaquín Piñeros Corpas entitled *Los Símbolos Nacionales* [The National Symbols], which already explicitly positions the wax palm as a national symbol.[42] As the palm slowly consolidates within different layers of Colombian society as a symbol of the nation, reports also begin to emerge in the press about the worrying deterioration of its populations.

40 E. Arbeláez, *Paisajes, Tierras y Trabajos* [Landscapes, Lands and Jobs] (Bogotá: Editorial Minerva, 1948), pp. 199–201.

41 Diaz, 'La palma de cera, árbol nacional'.

42 Ibid..

FIGURE 5.
Wax palm portrayed in a 1981 postage stamp. *Source:* Banco de la República, Colección de Estampilla, FE010655.

Also in 1979, the Radio Newspaper *El Clarín* of Medellín warned about the danger of the wax palm's extinction. Although the radio report does not mention the use of palm fronds in Holy Week bouquets as a cause of possible extinction, it does emphasise habitat transformation and especially that 'it has not been promoted enough, official entities do not investigate or promote it, nor do they reproduce it'.[43] Despite this concern for the national tree, it would only be in 1985, when the official declaration of the Quindío wax palm as a national symbol was made, that initial conservation guidelines would be established.

43 'Noticia de La Tierra' [Earth's News], *Radio periódico El Clarín*, 21 Sept. 1979, Fondo Radio periódico *El Clarín*, tomo 683, folio 454, Archivo Histórico de Medellín, Medellín [AHM].

SECULARISE TO CONSERVE

The late recognition of the wax palm as the national tree coincided with scientific awakening of awareness about the risks facing this species due to habitat loss and the religious use of its fronds. In 1984, a year before its official declaration, botanists Gloria Galeano and Rodrigo Bernal published an article titled 'Wax Palms in Danger of Extinction', expressing their concern about the general neglect of wax palm species and reflecting on how the destruction of Andean forests, their natural habitat, endangered many species. Regarding the use of these palms in the crafting of 'blessed bouquets', the naturalists reflected on the case of *Ceroxylon flexuosum* (now considered as *Ceroxylon vogelianum*). Galeano and Bernal found an individual of this species in a house in a rural area of Medellín. Notified by locals that the palms were once abundant in the area and that, despite efforts, they had not found more individuals than those cultivated, the botanists pointed to the use of young leaves in the crafting of Palm Sunday bouquets as a cause of local extinction.[44] While the use of palms as blessed bouquets was not the sole cause of the possible extinction of wax palms, this practice did contribute (as explained above) to the erosion of populations of this species.

The recognition of the wax palm as the national tree of Colombia encouraged some conservation measures. Restrictions on its logging, as well as the intention to create a national park, seemed to align with the requests of scientists like Galeano and Bernal. However, these initial and difficult-to-implement measures did not halt the transformation of the palm's habitat and did not prevent the use of its fronds in the religious celebration of Palm Sunday. To achieve that, it was necessary to discourage its use, which involved its desacralisation. This process gained momentum from the early 1990s when a series of circumstances converged to promote the conservation of this species.

Firstly, in 1991, a new liberal-leaning constitution was established in Colombia. It recognised the country as a secular state. At least on paper,

44 G. Galeano and R. Bernal, 'Las Palmas de Cera En Peligro de Extinción' [Wax Palms In Danger of Extinction], *Colombia: Ciencia y Tecnología* **2** (2) (1984): 26–27; A. Bonpland, 'Memoria. Sobre una palmera que da cera, y que ha servido para establecer un nuevo género [Memory. About a palm tree that produces wax, and that has served to establish a new genus]. Leída en la primera clase del Instituto, El 14 Brumario, Año 13, Por El Sr. Bonpland'.

the new *Carta Magna* reduced the influence that the Catholic Church had had on Colombian society until then. Additionally, the new constitution echoed the growing concern about environmental degradation. In Article 79, the new constitution recognised the 'Right to a Healthy Environment'. Paradoxically, the same religious power that the new constitution sought to limit also had a big influence on the conservation of these palms. At the 23rd World Day of Peace in 1990, Pope John Paul II's words on environmental conservation ultimately exerted an influence, albeit indirectly, on the desacralisation of the palm. In his message titled 'Peace with God the Creator, Peace with All Creation', the head of the Catholic Church defined the ecological crisis as a moral problem. He emphasised that, when humanity strays from the Creator's design, disorder results, inevitably affecting the rest of creation. Anticipating by a quarter of a century Pope Francis' Encyclical Letter *Laudato Si' On Care for Our Common Home*,[45] John Paul II reiterated how 'delicate ecological balances are upset by the uncontrolled destruction of animal and plant species', which, according to the Pope, even if done in the name of progress and wellbeing, certainly does not benefit humanity.[46]

Supported by the Pope's words, the wax palm found an ally for its desacralisation process in the press. However, in a historically conservative country with a predominantly Catholic population, journalists needed to be assertive to avoid any defence of the wax palm being identified as an attack on religious practices. In an article published before Holy Week of 1992, titled 'The Substitution of the Bouquet', the editorial staff of the newspaper *El Tiempo* explained how 'We do not want to offend God or His representatives on Earth or, in general, Christianity, but we dare to request the substitution of the palm.'[47] They then used the words of John Paul II to argue in favour of this replacement. Three years later, when Colombia joined the Convention on Biological Diversity in

45 Iglesia Católica. Papa (2013 - : Francisco) and Papa Francisco, *Laudato Si': Carta Encíclica Del Sumo Pontífice Francisco : A Los Obispos, a Los Presbíteros Y a Los Diáconos, a Las Personas Consagradas Y a Todos Los Fieles Laicos Sobre El Cuidado De La Casa Común* (Lima: Paulinas, 2015).

46 Message of his holiness Pope John Paul II for the celebration of the world day of peace, 1 Jan. 1990: https://www.vatican.va/content/john-paul-ii/es/messages/peace/documents/hf_jp-ii_mes_19891208_xxiii-world-day-for-peace.html (accessed 16 Aug. 2022).

47 Redacción, 'Sustitución del Ramo'.

February 1995, an intense campaign orchestrated by the press and environmental circles sought alternatives to wax palm fronds in the Palm Sunday celebration.[48] That year, parishioners used white handkerchiefs and flowers as substitutes for the palm. The call was quite successful due to the clergy's adherence to the ecological mood, encouraging the use of these alternatives, which were promoted in most parishes across the country. That year, the Auxiliary Bishop of Medellín, Monsignor Darío Monsalve Mejía, expressed that 'although the wax palm, a traditional and beautiful bouquet, is in extinction, our faith should be alive, fresh, and joyful'. Therefore, the Auxiliary Bishop recommended 'letting our national palm rest and resorting to other branches, such as pines or eucalyptus', and based on the Gospel of Luke, he asserted that 'even other non-vegetal signs such as flags and handkerchiefs' should be used.[49]

But Monsignor Monsalve would soon withdraw his blessing from the use of non-vegetal elements in the celebration of Palm Sunday. After the president of the Episcopal Conference, Monsignor Pedro Rubiano Sáenz, ordered the use of other vegetal species instead of handkerchiefs, the Auxiliary Bishop of Medellín, Monsignor Monsalve, declared in a more emphatic tone that:

> Today we want to correct that initiative and rescue the palm sign. We cannot yield to a misunderstood environmentalism, which absolutises nature with a primitive sense. We cannot surrender to a neo-religious trend that intends, under various pretexts, to undermine all the signs and expressions of the Christian faith ... We invite all Catholic faithful to equip themselves with palms, branches, flowers, or vegetal elements from our flora, to make a colourful manifestation of our hope in the victory of the kingdom of Christ.[50]

In his statement, the Monsignor Monsalve Mejía indicates that the use of vegetal alternatives, such as 'leaves of other palms, green or dry branches, and flower arrangements', was permitted, and emphasizes that 'the palm sign should not be changed for flags or handkerchiefs, nor should the Palm Sunday procession become an ecological march

48 Signature of the Convention on Biological Diversity by the state of Colombia: https://www.cancilleria.gov.co/convenio-sobre-diversidad-biologica-cbd (accessed 23 Aug. 2022).

49 D. Monsalve, 'Los Ramos Del Domingo' [Sunday Palms], *El Colombiano*, 2 April 1995, E.

50 C. Chaves, '¿Ambientalismo o Tradición?' [Environmentalism or Tradition?], *El Mundo*, 29 March 1995.

or tree day'. Furthermore, Monsalve calls on parish priests to distribute the palms to parishioners and on merchants to sell them. However, this request to distribute branches among the people would be dismissed given the economic burden that the celebration of Holy Week represents for each parish when it comes to painting the church, and purchasing a larger quantity of wafers and wine to cover the higher attendance of believers.[51] Therefore, the church's position was to stick with vegetal branches, regardless of the species, opening the possibility of continuing to use endangered species. At least that's how a journalist perceived it in March 1996, pointing out that 'The church invited the faithful to look for other palms, without taking into account that the wax palm is not the only species threatened by tradition. It retreated in its initiative to accept white handkerchiefs and festoons as an alternative for the celebration of Palm Sunday.'[52]

After this retraction about the use of non-vegetal elements, campaigns aimed at discouraging the use of wax palm fronds in the Palm Sunday celebration took on a unique tone in the history of conservation. In the press and in conservation campaigns emanating from regional entities, a very particular mixture of ideas related to Holy Week with the idea of conservation could be observed. Headlines like 'Palm Sunday, Tradition, and Conservation', 'God Save the Palm', or 'The Palm of Sacrifice' became common before Holy Week (see Figure 6, left). Additionally, this hybrid language between conservation and religion became more complex when the underlying ecological impact of its exploitation was added, focusing on the other species with which the palm has symbiotic relationships. The clearest example of this concerns the impact on populations of the yellow-eared parrot (*Ognorhynchus icterotis*), a species which depends on palms for survival (see Figure 6, right). By adding an easy-to-recognise animal like the yellow-eared parrot to the conservation discourse, the national tree gained an ally. The image of the yellow-eared parrot was systematically exploited in the iconography related to wax palm conservation produced by governmental environmental entities known as Regional Autonomous Corporations.

51 Expenses for each parish were double what were incurred at other times of the year. For example, in 2012's prices, a single church could spend 16,000 dollars (at that year's exchange rate) on painting alone – see J. Obando, 'Lo Que Vale Una Semana Santa' [The cost of the Holy Week], *El Mundo*, 12 April 2012.

52 Chaves, '¿Ambientalismo o Tradición?', pp. 6–7.

FIGURE 6.
Left: Press advertisement published before Palm Sunday in 2001.
Source: Periódico *La Hoja,* Medellín; Right: Wax palm conservation campaign. Source: Proaves.

One of the achievements of the secularisation of the wax palm was the search for vegetal alternatives, among which the iraca palm (*Carludovica palmata*) stands out. This plant is a species of herb in the Cyclanthaceae family that, despite not being a palm in the botanical sense, has leaves that resemble those of the Araceae family. An article published in 2007 exemplifies this process of transformation in the religious market. Pedro Cardona, an employee of the Coca-Cola plant in Medellín who usually helped his father market palm bouquets, had collected around two thousand iraca palm bouquets that year. According to Cardona, after its extraction, the iraca 'grows back faster than the wax palm'.[53] Since, for most citizens, it was difficult to distinguish between the iraca leaves and the wax palm frond, environmental authorities undertook campaigns

53 'Redacción, Los Caminantes del Domingo de Ramos' [The Palm Sunday Walkers], *El Colombiano*, 2 April 2007, 3a.

FIGURE 7.

Posters designed to teach the differences between wax palm fronds and iraca leaves
Source: Área Metropolitana de Medellín.

to combat this botanical illiteracy. In doing so, they aimed to educate potentially informed parishioners to buy the correct bouquet for the religious celebrations of Holy Week (Figure 7).

Despite different strategies in the conservation of the wax palm and its progressive replacement by other plant species, the extraction of wax palm fronds, although marginal, has persisted over time. Consequently, the stubborn use of these species in the crafting of bouquets has led to desacralisation campaigns with punitive practices, in which environmental police conduct operations aimed at prosecuting merchants who persist in obtaining resources by exploiting the national tree. Thus, even today, a few days before Palm Sunday celebrations, strange images of police officers presenting cargoes of unblessed palm bouquets as evidence of their botanical confiscation often appear in the media.[54]

54 See, for example, A. Pabón, 'Domingo de Ramos, Incautados 113 Kilos de Palma de Cera' [Palm Sunday, 113 Kilos of Wax Palm Seized], *Revista Contraluz*, 25 (2015): http://contraluzcucuta.co/domingo-de-ramos-incautados-113-kilos-de-palma-de-cera/ (accessed 22 Aug. 2022).

CONCLUSION

The twentieth-century declaration of the wax palm (*Ceroxylon quindiuensis*) as the national tree of Colombia demonstrates how the production of national symbols is an ongoing process. Unlike early national symbols such as the flag, coat of arms and national anthem, the recognition of the wax palm as a national emblem was significantly informed by ecological awareness that emerged in the latter part of the twentieth century. Therefore, the declaration of the wax palm as the national tree of Colombia was the result of a unique intertwining of national identity symbols, religious practices and scientific-led ecological narratives. This triple significance of the wax palm – as religious fetish, national symbol and conservation object –has fostered unprecedented synergistic interactions among diverse social actors who collaborated to culturally re-signify this species, primarily aiming to discourage the use of wax palm fronds during Holy Week celebrations. Among these social actors, the mass media played a crucial role by amplifying the extinction risks highlighted by botanists. These campaigns embraced the ecological narrative, emphasising the ecosystemic value of the national tree, including its importance for species such as the yellow-eared parrot. This unique interaction between human and non-human actors around a single species has effectively reduced the pressure on populations of the national tree. The authors of the 2015 *Plan for the Conservation, Management and Sustainable Use of the Wax Palm* state that, with the exception of certain localities in the northeast of the country, 'the ancient practice of harvesting the buds for use as blessed branches during Holy Week has now been almost completely eradicated'.[55] This confirms how the declaration of the wax palm as the national tree contributed to the symbolic transformation of this botanical rarity, in turn giving it a new place within a widely held botanical imaginary in Colombia.

The resignification of the wax palm as Colombia's national tree also reflects continuities established in the creation of nineteenth-century national symbols, revealing representational gaps, such as the exclusion

55 Gloria Galeano, Rodrigo Bernal and María Sanín, *Plan de Conservación, Manejo y Uso Sostenible de La Palma de Cera Del Quindío (Ceroxylon quindiuense), Árbol Nacional de Colombia*, [Plan for the Conservation, Management and Sustainable Use of the Wax Palm of Quindío, National tree of Colombia] 1st ed. (Bogotá: Ministerio de Ambiente y Desarrollo Sostenible, 2015).

of subaltern voices historically ignored in the construction of the nation-state. For instance, similar to the Andean condor in the coat of arms, the wax palm is an Andean species, underscoring the persistent Andean-centrism upon which the national project was built, inspired by European ideas that viewed tropical lowlands as inhospitable to 'civilisation'.[56] Consequently, the symbolic inventory of the natural/national lacks representation from other regions. We do not know how other plant species have been integrated, or not, into the representation of Colombia and its cultural rituals beyond the Andean mountains. Furthermore, the selection of the wax palm as Colombia's 'vegetal diplomat', the same species chosen by Humboldt and Bonpland as the icon of their travels through the American tropics, underscores the enduring legacy of the European worldview in shaping the perception of nature in tropical countries.

ACKNOWLEDGEMENTS

I would like to thank the two reviewers for their valuable comments and suggestions, as well as Felix Driver and Fiona Kinniburgh for their helpful feedback on the English version of this paper.

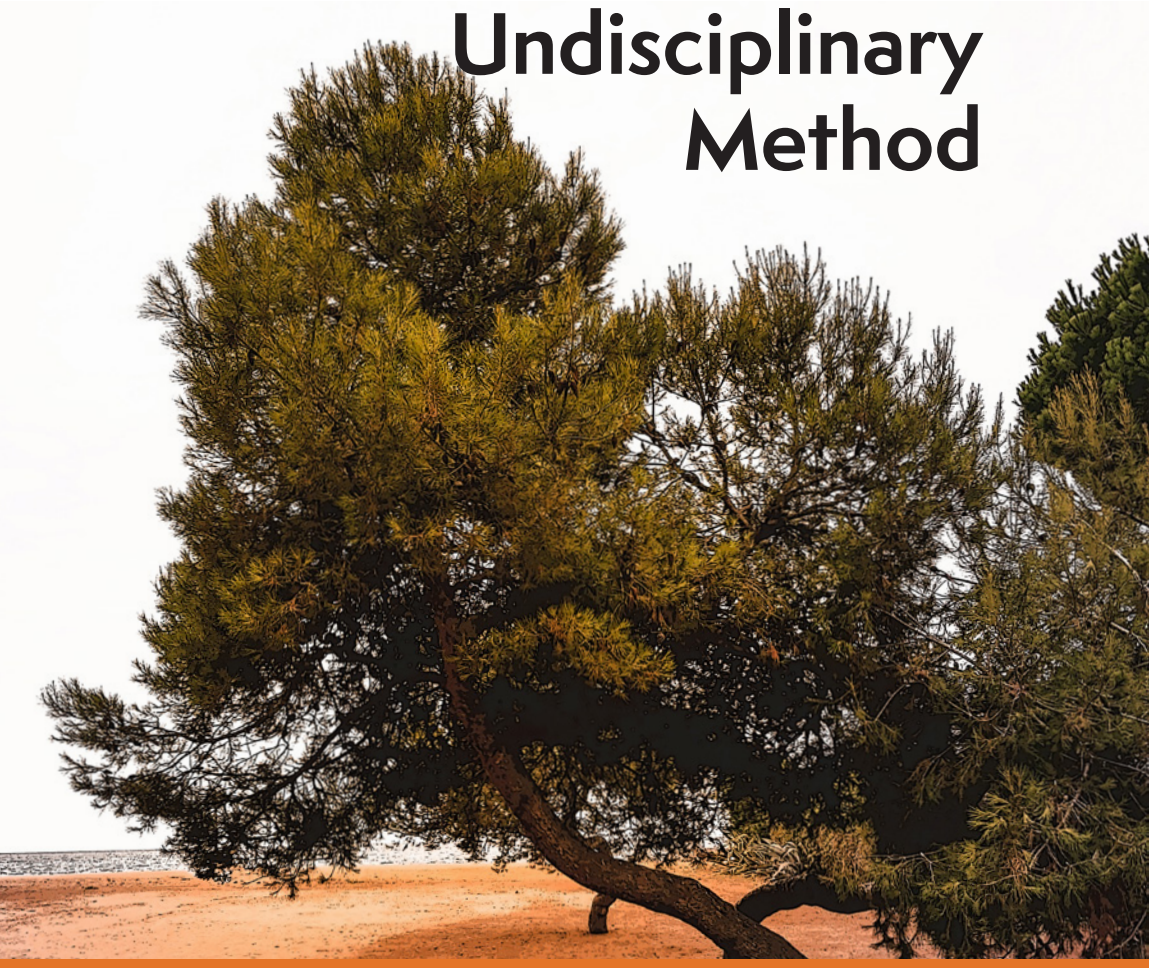
Diego Molina is a British Academy Postdoctoral Fellow at Royal Holloway, University of London. After working as a botanist in Colombia for several years, he turned to environmental humanities. In his research, he proposes a dialogue between images, texts and botanical collections to reconstruct historical relationships between people and plants in tropical cities. In his current research, he explores the nineteenth century transatlantic exchange of ornamental plants used in the creation of gardens in the Andes and in Europe. Before becoming a British Academy Postdoctoral Fellow, Diego was a Landhaus Fellow at the Rachel Carson Centre of Environment and Society in Munich.

Email: Diego.Molina@rhul.ac.uk

56 F. Martínez-Pinzón, *Una Cultura de Invernadero: Trópico y Civilización En Colombia (1808–1928)* [A Greenhouse Culture. Tropics and Civilisation in Colombia (1808–1928)], Juego de Dados: Latinoamérica y Su Cultura En El XIX 6 (Madrid: Frankfurt am Main: Iberoamericana; Vervuert, 2016).

Annette Arlander

Pondering with Örö Pines – Talking with Trees as an Undisciplinary Method



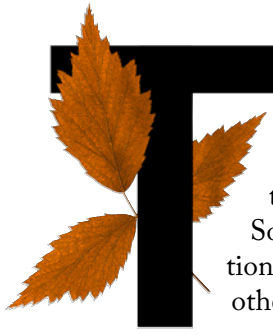
PLANT PERSPECTIVES 3/1 - 2026: 155–177
DOI: 10.3197/WHPPP.63845494909748
OPEN ACCESS CC BY 4.0 © THE AUTHOR

ABSTRACT

This text presents talking with trees as a method of generating material for artistic and other research purposes based on conversations with pine trees recorded in May 2022 on Örö Island in southwestern Finland. Addressing one pine tree a day for six consecutive days as part of the project Pondering with Pines was an experiment that resulted in video works and podcast episodes. The perspective was human centred and subjective while also subjectifying the trees. In this context, the focus is on talking with trees as an undisciplinary method adaptable to other circumstances.

KEYWORDS

trees, pine trees, conversation, undisciplinary method, artistic research, performance



rees have a special position in the human relationship to vegetation, and within critical plant studies or plant humanities. Trees are linked to truth,[1] they are listened to,[2] they are watching us,[3] they serve to connect literary scholars,[4] and more. Some recent publications focus on plants as inspiration for plays,[5] art and thought more broadly,[6] while others focus on specific trees, like pines,[7] which are the

1 David Wood, *Thinking Plant Animal Human: Encounters with Communities of Difference* (University of Minnesota Press, 2020), pp. 35–49.

2 Michael Marder, 'To hear plants speak', in M. Gagliano, J.C. Ryan and P. Vieira (eds), *The Language of Plants - Science, Philosophy, Literature* (Minneapolis; London: University of Minnesota Press, 2017), pp.103–25.

3 Natasha Myers, 'Are the trees watching us?' *Spike Art Magazine* #65 (Autumn 2020): https://www.spikeartmagazine.com/?q=articles/qa-natasha-myers

4 Carmen Concilio and Natalia Fargione (eds), *Trees in Literature and the Arts: Humanarboreal Perspectives in the Anthropocene (*Lanham; Boulder, New York; London: Lexington Books, 2021).

5 Giovanni Aloi (ed.), *Estado Vegetal – Performance and Plant-Thinking* (Minneapolis; London: University of Minnesota Press, 2023)

6 Giovanni Aloi and Michael Marder (eds), *Vegetal Entwinements in Philosophy and Art: A Reader* (Cambridge: MIT Press, 2023).

7 Robin Wall Kimmerer, 'White pine'. In J.C. Ryan, P. Vieira and M. Gagliano (eds), *The Minds of Plants. Narratives of Vegetal Intelligence* (Santa Fe; London: Synergetic Press, 2021), pp. 423–31.

main collaborators in this text. And talking with trees is of course nothing new for philosophers.[8] The following account of talking with pine trees could be described as an open-ended experiment, a task-based performance or an example of fieldwork depending on context. It is here presented as a possible interdisciplinary or even undisciplinary[9] method for generating ideas, material or data together with pine trees, in contact and conversation with them, nearby.[10] Undisciplinary here means unlinked to specific disciplines like interdisciplinary, or to professional knowledges beyond the academy like transdisciplinary, with a possible link to the undisciplined as befits artistic research, implying that the method could be used in various contexts and for a variety of purposes.

The main problem of the project Pondering with Pines can be summarised as 'how to develop ways of recognizing and engaging with the subjectivity of life forms such as trees, which we tend to consider as wholly "other"?'[11] The artistic aim is linked to the wish of Ursula Le Guin 'to subjectify the universe, because look where objectifying it has gotten us'[12] and the task, stressed by Amitav Ghosh 'of imaginatively restoring agency and voice to nonhumans /--/ a task that is at once aesthetic and political /--/ now freighted with the most pressing moral urgency.'[13] The practice did not lean on literary tools, however, but the real-time, real-body, real-effort ethos of 'orthodox' performance art. The artistic exploration was not aimed as a contribution to critical plant studies or plant humanities, while this text now hopes to provide some material for discussion in that context. What would be a pine's perspec-

8 See, for example, Martin Buber, *I and Thou*, trans. by Ronald Gregor Smith (Edinburgh: T.& T. Clark, 1937); Erazim Kohák, 'Speaking to trees', *Critical Review* 6 (1993): 317–88.

9 The term was used by curator Taru Elfving in a talk at a post doc seminar in University of the Arts, Helsinki.

10 Nancy N. Chen, 'Speaking nearby: A conversation with Trinh T. Minh-ha', *Visual Anthropology Review* **8** (1) (1992): 82–91.

11 See project presentation: https://www.uniarts.fi/en/projects/pondering-with-pines/

12 Ursula K. Le Guin, 'Deep in admiration', in Anna Tsing, Heather Swanson, Elaine Gan and Nils Bubandt (eds), *Arts of Living on a Damaged Planet* (Minneapolis: University of Minnesota Press, 2017), pp. 15–21.

13 Amitav Ghosh, *The Nutmeg's Curse: Parables for a Planet in Crisis* (London: John Murray, 2021), p. 204.

tive? Is it not sheer human arrogance to believe one could simply adopt a pine's view and abandon one's own?

Despite being undisciplinary, this project was undertaken in the context of artistic research,[14] performance as research,[15] and related to practice-based research in a literal sense; the artistic experiments serve as the starting point, rather than a summary of previous research, as is customary in humanities. Like most of my scholarly publications, this text uses an artistic project as material to reflect upon a topic afterwards. For those not familiar with artistic research, the process often resembles action research, where practical work and scholarly reflection alternate, and influence the next stage. The use of personal experiences and first-person narration resembles autoethnographic accounts, although this text is not situated within that tradition and does not contribute to knowledge of life in the archipelago or forest management in national parks in Finland, to mention a few possible contexts. The text is written from a first-person perspective as is customary in artistic research and all research that honours the feminist legacy of situated knowing.[16] The artistic exploration was undertaken without articulated research question or hypothesis beyond the general problem 'how to recognize and engage with the subjectivity of pine trees' and, although influenced by previous experiments by the author,[17] with only a vague working question 'could this be done?' And yes, it could be done. Now, in the context of this text, the interesting question is, what could it lead to? Could this way of working be developed into an undisciplinary method used by others in other fields?

14 Henk Borgdorff, *The Conflict of the Faculties: Perspectives on Artistic Research and Academia* (Leiden: Leiden University Press, 2012).

15 Shannon Rose Riley and Lynette Hunter (eds), *Mapping Landscapes for Performance as Research. Scholarly Acts and Creative Cartographies* (Basingstoke: Palgrave, 2009); Annette Arlander, Bruce Barton, Melanie Dreyer-Lude and Ben Spatz (eds), *Performance as Research: Knowledge, Methods, Impact* (London; New York: Routledge, 2018).

16 See, for example, Donna J. Haraway, 'Situated knowledges: The science question in feminism and the privilege of partial perspective', *Feminist Studies* **14** (3) (1988): 575–99.

17 Beginning with Annette Arlander, 'Performing with trees: Landscape and artistic research', in John Freeman (ed.), *Blood, Sweat & Theory – Research through Practice in Performance* (Oxfordshire: Libri Publishing, 2010), pp. 158–76.

The material produced was published as artistic outputs in the form of video works[18] and podcast episodes,[19] with an emphasis on real-time documents as evidence, rather than polished extracts for professional use. Here, however, the same material serves as texts, which are abbreviated and edited to be more readable. Besides sharing the topics of the conversations with the pines, the texts present the working method, suggesting that it might be developed for other purposes. By talking to the pines next to and in physical contact with them, the trees can have a direct impact on the conversation or text that is generated in their presence. The more the material is polished afterwards, the more human dominance takes over, inevitably. I have discussed the idea of addressing trees, speaking to trees rather than as trees, for trees or on behalf of trees, elsewhere,[20] here only noting that the problem of speaking for others[21] and the challenge in speaking nearby another[22] is even more difficult with such others as pines.

Regardless of pines being the main reason for and the key collaborators in the project, this text is not about pines, but rather about an attempt at including them. Pines are very ancient trees; they had diversified into two groups by the end of the Mesozoic period. Today there are 111 species of pines, which have adapted to life in a wide variety of circumstances from the Arctic to the tropics.[23] Although they are of the same species (*Pinus sylvestris*), the pine trees growing in the southwestern archipelago differ from the pines forming most of the forests in Finland, being small and often bent into sculptural forms by the wind. I had the opportunity to visit

18 See videos and transcripts in the Research Catalogue by Annette Arlander, 'Pondering with Örö Pines' (2022): https://www.researchcatalogue.net/view/1323410/1634001

19 See Annette Arlander, *Talking with Trees*, on SoundCloud, playlist 'Pondering with Örö Pines' (2022): https://soundcloud.com/user-90370389/sets/pondering-with-oeroe-pines

20 Annette Arlander, 'Writing with a pine: Addressing a tree as audience', *Näyttämö ja Tutkimus [Stage and research]* 9 (2023): 103–20. https://journal.fi/teats/article/view/127615

21 Linda Alcoff, 'The problem of speaking for others', *Cultural Critique* 20 (1991–1992): 5–32.

22 Chen, 'Speaking nearby'.

23 David M. Richardson and Philip W. Rundel, 'Ecology and biogeography of *Pinus:* An introduction', in Richardson (ed.), *Ecology and Biogeography of* Pinus (Cambridge: Cambridge University Press, 2000 [1998]), pp. 3–44.

some of them on Örö Island through the Öres residency[24] for a week in May (13–18 May 2022) and to conduct an artistic experiment of meeting a pine a day there for six consecutive days. I had performed with some pines on the island before, writing letters to them[25] and posing with them as part of my previous project, Meetings with Remarkable and Unremarkable Trees.[26] Now, working on the project Pondering with Pines,[27] I described the task I took on in a blog post at the end of the week: 'I made an experiment to meet or make acquaintance with one pine every day, and to record a video and an improvised conversation with that pine.'[28] All the videos and the original transcribed texts were uploaded on the Research Catalogue, an international database for artistic research.[29] Each conversation was made into an episode on the podcast *Talking with Trees* and they form a playlist, Pondering with Örö Pines.[30] The conversations are in the following presented abbreviated and edited, with new material added only between the texts or as footnotes. Still images from the videos show the pines, their remarkable forms and their immediate environment to remind the reader of their contribution to the conversation, which is easily lost with a focus on text. A word of warning: these conversations with pine trees were undertaken from a human perspective, not from the perspective of the pines. The talks were improvised in the moment, and although here edited, nevertheless 'spoken', in broken English. A reader uninterested in the demonstration aspect can skim through the texts and jump to the concluding remarks. For the curious reader the texts can hopefully provide a sense of the recorded conversations with the pine trees and demonstrate the usefulness as well as the limits of the method.

To substantiate the claim that talking to trees by the trees could be an undisciplinary method for generating ideas, material or data together

24 Öres: https://www.ores.fi

25 See, for example, Arlander, 'Writing with a pine', pp. 103–20.

26 Meetings with Remarkable and Unremarkable Trees: https://www.uniarts.fi/en/projects/meetings-with-remarkable-and-unremarkable-trees/

27 Pondering with Pines: https://www.uniarts.fi/en/projects/pondering-with-pines/

28 Annette Arlander, 'Some Örö Pines' (2022): https://ponderingwithpines.com/2022/05/19/some-oro-pines/

29 Arlander, 'Pondering with Örö Pines': https://www.researchcatalogue.net/view/1323410/1634001

30 Arlander, 'Pondering with Örö Pines': https://soundcloud.com/user-90370389/sets/pondering-with-oeroe-pines

with trees, in contact and conversation with them, I will first try to articulate in what ways my pine collaborators contributed to the work. The pines determined the site and place, the position of the performer, partly the placement of the camera and thus the framing of the image. They provided the visual content of the image, although a human being is easily foregrounded even when only partly visible. The pines influenced the sound by providing material for the wind to play with. They also served as shelter from the wind when I tried to protect the microphone. The pines offered surfaces to touch and odours to smell, influencing the mood of the conversation in subtle, sensual ways. Most importantly, they triggered the topics to be discussed, both directly through their form and mode of growing and indirectly through the volatile chemicals they emit, through our shared breathing, and through other trans-corporeal[31] exchanges taking place between us. In their diversity within the same species, the pines reminded me to regard them as individuals or individual collectives. With their way of reacting to calamities, like trunks broken in winter storms, by continuing to grow from where they landed, the pines provided an eloquent model of resilience. They contributed also by their legacy as a species, the way they have shaped the landscape in the country and by evoking the cultural, in Finland often national-romantic, landscapes they have participated in producing. Not to forget the very substantial contribution they make on an industrial scale to the economy of the country. To put it brutally: no pines, no forestry, no state subsidies, no artist grants, and no national parks, like the one in Örö. The ways that the pines contributed to this experiment can be summarised as 1) contributing to the images, 2) contributing to the conversations, and 3) contributing to the conditions for the work.

This first conversation with the first pine tree introduces the site, the island of Örö, which I have also described elsewhere.[32] The conversation is included here almost in full, only a section where I describe how I found the tree and my surprise at not noticing it before is removed.

31 Stacy Alaimo, *Bodily Natures. Science, Environment, and the Material Self* (Bloomington & Indianapolis: Indiana University Press, 2010).

32 Arlander, 'Writing with a pine', pp. 103–120; and Arlander, 'Trees as experts in site-specificity', in Victoria Hunter and Cathy Turner (eds), *Routledge Companion to Site-Specific Performance* (forthcoming).

FIGURE 1.
Pondering with Örö Pines (1), video still.
Source: Author.

13 May 2022

'Kära tall eller kära fura'. Actually, I should say dear pine; I want to address you in English although it might be more natural to speak Swedish with you, but since it is not so natural to talk to you anyway, I might as well speak English. /--/
Because you are growing inland, you are not bent and twisted like many of the pines on the shore. On the contrary, you are very handsome, tall and quite thick, so you must be ancient. You have met the Russians when they were here, probably. And then the Finnish Army and now all the tourists.[33] And you have the good luck of living in a national park now,[34] so there is a great likelihood that you can live your life to the full. I know the forest department is reducing some of the pines by the shore, strangling them, so to speak, letting them die slowly by taking away the bark around the trunk[35], in order to maintain the landscape more

33 Visit Örö: https://www.visitoro.fi/en/

34 Örö national park: https://www.nationalparks.fi/oro

35 See, for example, Harry Pepper, 'Girdling, constriction and ringbarking', *Trees in Focus. Arboricultural Practice Notes* 13 (2008): https://www.trees.org.uk/Help-Advice/Tree-Advice-Trust-Legacy/Arb-Practice-Notes

open. Because, dear pine, you are really a very strong and in some sense invasive species. Of course, you are not an invasive species here, this is your home. Except that, when the land was rising, there were no forests on the islands to begin with, but now, you are not coming from abroad. Well, that is a good question. Everybody has come from abroad at some point, because earlier there was only ice here. Anyway, when you grow, you proliferate in such numbers that you prevent other species from surviving, especially those plants that need more open vistas and more sun. You are very resilient, as they say nowadays, because you can survive in quite harsh circumstances, not only the wind and the cold here, but the soil ... There is not much soil on the cliffs, on the rocks and on the shore. Except that you produce a soil of sorts, through your needles and pine cones when they fall to the ground. Well, I am talking nonsense with you, or something that is trivial knowledge for humans. And for you even more trivial, because it is knowledge of pines from a human perspective.

How could I sensitise myself to be able to listen to you, to take in your perspective? That is a task. If I listen, I don't hear you. I hear the sea, the wind and the sea; sometimes when the wind is strong I can hear the wind in the pines too, but not now. I wonder if you can hear the sea as well. Some plants clearly can hear, so why not? It would be quite amazing if you could hear my speech, not necessarily understand what I am saying, but if you could hear my voice. And if you could sense that I am wishing you well, that I am not trying to hurt you. I am not going to eat your bark or dig small holes into your wood, that then make it difficult for you to thrive. Although in Finland people used to make bread of you, when there were bad years, when the crop was freezing. There is a part of your bark, between your wood and your bark, a part that can be collected and dried and made into a flour and added to wheat or rye, or oats or barley, half and half or something like that[36]. I have never tasted that kind of bread. And they say that it is not very good for you, that it makes you sick, unless you prepare it in the right way. But it helped people to survive, or at least they tried to survive by that when there were hunger years.[37]

36 For bark bread described as a historical practice, see June Pelo, 'Bark bread', *Swedish Finn Historical Society* (2023): https://www.swedishfinnhistoricalsociety.org/bark-bread/; and, as a contemporary development, Rachel Proby, 'Eating tree bark – treelicious or barking mad?' *UPM Biofore beyond fossils* (2020): https://www.upm.com/articles/forest/20/eating-tree-bark-treelicious-or-barking-mad/

37 Andrew Newby, 'Finland's Great Famine 1856–68', *Finland's "Great Hunger Years" Memorials* (2023): https://katovuodet1860.wordpress.com/2023/05/19/finlands-great-famine-1856-68/

> Well, if you are privileged in living in this national park, opposed to most of your relatives in Finland, which are living on plantations and will be cut down before they reach old age, I must say I am privileged too, to live in this time, when there is such abundance in this country. Right now, it does not feel like a privilege because there is war in Europe, and a lot of discussions about military alliances and nuclear weapons, horrible, not suicidal but 'omnicidal' weapons as somebody called them. But still, compared to ancient times when there was always war, and there was also famine. Now there is no famine. Even if the price of energy goes up, and we have to learn to live in a different way, there is nothing compared to the struggles before. Well, that is again from a human perspective.
> Sorry for bothering you with my chatting, I really appreciate your generosity of standing here and allowing me to sit on your branch. I hope you will have a really great summer and many, many productive years to come. Maybe I will come back to you later this week, but for now, I say goodbye and thank you. Thank you and take care.

The brief remark about 'trivial knowledge for humans', which is even more so for pines, 'because it is knowledge of pines from a human perspective' is followed by a question that is the core problem in the whole experiment: 'How could I sensitise myself to be able to listen to you, to take in your perspective?' Is that even possible in any deeper sense?

The second conversation with the second pine tree, a small and sturdy one with several trunks growing on a hill next to the road, took place the following day and begins with lichen, while the most relevant topic is perhaps the question of the tree as a collectivity, approached first as a problem of address.

FIGURE 2.
Pondering with Örö Pines (2), video still.
Source: Author

14 May 2022

'Kära tall, martall' or Dear pine. Thank you for allowing me to sit on your trunk or one of your branches. I am not really sure if I should address you as you, one pine, or as you, many pines growing from the same root, but in English that does not make much difference, I guess. I thought I would ask you, or talk to you about lichen, because many of the pines on Örö Island do have beautiful lichen living on their trunks. Funny enough you don't have that many; there are some pale gray, greenish gray, but rather small ones compared to some of the others. Maybe they don't bother you, or maybe lichen don't bother pines in general. There is something fascinating about lichen as life forms because they are collaborative endeavours by algae and fungi, and very tough and hardy. Some can survive in very harsh circumstances. /--/
When I look at your trunk very closely, I can see something that could be lichen, but very small, so maybe there are different types of them. I remember I read somewhere that actually the part of you that is living tissue, is quite a thin layer under the bark on top of the wooden trunk. Most of your trunk is dead material or remains of former living cells. If this is true, that makes your relationship to your bark quite different. Maybe like human hair. If there would be an ant climbing on the skin on my head,

I would surely sense it and not like it probably. But if there was an ant crawling in my hair, I would maybe not notice it immediately unless it was big enough to be felt by distance. Strange to look at such analogies with humans. I have to accept that I really cannot understand how it feels to have a bark like yours or to have several trunks like you have or to have lichen growing on your skin. Although human skin also has a lot of life forms, of bacteria or even fungi, living both inside and on the skin.
Yes, probably the idea of addressing you as a group of trunks from the same root or as one tree with several branches, like a family, is a mistake. And I should try to see all of you more as a system, as systemic parts, engaging in collaborations of various kinds, and on different levels, beginning from the molecular level, and cellular and then different types of life forms and ... It is difficult, because we are so accustomed as humans to consider ourselves as persons and individuals and separate from our environment, that it is so easy to expand that sort of thinking to other creatures, like trees. If I were to think of you as a city instead, that might be more correct. But on the other hand, I have to stick to the species-specific behaviour that is given to me. That is the way that I am programmed to think and react and sense. Funny to think of being programmed, but of course we are also genetically programmed, you are and I am, although humans tend to pride themselves that they are adaptable and can learn new things and that is why they have survived and covered the earth. .. Sure, you pines are adaptable, too. When I look at the different pines on this small island, and how different the circumstances they are living in are, some on very dry soil and some in damp places, some solitary on a cliff and completely helpless against the wind and the storms and some in thickets of small pines growing next to each other and then tall, twisted, huge, weird, contorted pines. Well, sorry for saying that, but you are a small, weird and contorted pine; your trunk is divided in several and the part or the branch that I am sitting in is bent in a very strange way, but a way that is very comfortable for me to sit on. /--/

The remark 'strange to look at such analogies with humans' and the justification to 'stick to the species-specific behaviour that is given to me' introduces the problem of anthropocentrism and related questions like whether plants should be regarded as persons or not, which I have discussed elsewhere.[38] By talking to trees, by subjectifying them, I am

38 For a brief discussion, see Annette Arlander, *Meetings with Remarkable and Unremarkable Trees in Johannesburg and Environs* Arts Research Africa, The Wits

almost inevitably anthropomorphising them, because that is the form of subjectivity I have experience of, even if I don't imagine any tree spirit hiding behind the bark. By talking to the pine rather than writing to them, I nevertheless enable the pine to hear my voice, to register the sound, at least in principle.

The third conversation with the third pine, with a trunk lying on the ground covered in moss but still living, engages with classic problems like empathy, mind-body dualism and the question of whether we should respect trees as completely other or rather see them as relatives and look for commonalities among all lifeforms.

FIGURE 3.
Pondering with Örö Pines (3), video still.
Source: Author

School of Arts, University of Witwatersrand, Johannesburg (2020): https://wiredspace.wits.ac.za/items/5ee580a4-db3d-4de4-818e-7c6b65a16605, pp 8–12, based on Matthew Hall, *Plants as Persons: A Philosophical Botany* (Albany: State University of New York Press, 2011); Michael Marder, 'Is it ethical to eat plants?' *Parallax* **19** (1)(2013): 29–37; Matthew Hall, 'In defence of plant personhood', *Religions* **10** (5) (2019): 317; and Thomas J. Puleo, 'Incorporating nonhuman subjectivity into world society: The case of extending personhood to plants', in Dietrich Jung and Stephan Stetter (eds), *Modern Subjectivities in World Society: Global Structures and Local Practices*, pp. 211–27 (Cham: Palgrave Macmillan, 2019).

15 May 2022

Hello pine, pleased to meet you. I have to admit that you look really extraordinary and you are also growing in an extraordinary beautiful place on a panorama spot; there is even a sign pointing to this hill saying that there is a beautiful view. Unfortunately, you are lying down on this hill, for the past several years, it seems, because your roots and your trunk have gathered moss for a while. But I can also see that your crown is alive and thriving. So despite toppling over, falling in a storm I guess, you continue living in this reclining pose, as if nothing happened. It is remarkable and amazing, and it is really difficult to imagine how that could be comparable with human existence. Maybe it could be like damaging your spine in such a way that you have to you use a wheelchair or lie down.

I know about the danger of trying to find similarities in order to feel empathy. I just read a text by Michael Marder,[39] recommended by a colleague, a text I read several years ago, which I had forgotten most of the points of, a really severe critique of empathy, even more a critique of pity. There is also a mention of the notion of compassion, of suffering with, that has been suggested by some philosophers like Schopenhauer influenced by Buddhism. I agree that when I try to somehow address you, and speak to you, I am actually talking to myself and I am somehow projecting something of myself into you. I recognise those limits, but I am not sure it is any better to think of you as somehow completely other. So I am not so sure that what he calls 'totaliarising' vitalism would be so dangerous. Anything that is 'totaliarising' sounds bad, which means that we would somehow not recognise the differences, but vitalism in the sense of recognising the common features of all life, despite the differences, I cannot really see the danger with. I think there might be more danger in thinking of vegetal life as something completely separate. And yes, Marder suggests that we should recognise the vegetal in ourselves, why not.[40]

But in some sense, the idea of assuming that there might be capacity to suffer and even a form of consciousness, or whatever can be produced in sophisticated forms of life in vegetation, like in old trees like you; I would prefer to err on the side of caution, so to speak. Although I cannot know how you feel, or what you think, I want to leave open the possibility

39 Michael Marder, 'The life of plants and the limits of empathy'. *Dialogue,* 51 (2012): 259–73. https://doi.org/10.1017/S0012217312000431

40 Michael Marder, *Plant-Thinking: A Philosophy of Vegetal Life* (New York: Columbia University Press, 2013).

that you feel, and that you think. And I am convinced that it is completely wrong to think of humans as utterly different from all other forms of life. That has been discussed a lot by contemporary post-humanist philosophers,[41] but the legacy of Western philosophy of emphasising the spiritual dimension in humans, spiritual in the sense of an inner soul that is distinguished from the outer body, this old mind-body dualism is strong. The idea of something inner as opposed to something outer, which is used to make a big difference between animals and plants or even more between humans and plants, there is something that is wrong with that.[42] I would like to think that we can be completely other, but we can also be the same. Because if I, out of respect, consider you as completely other, that otherness becomes an extra barrier. I think it is difficult enough to try to, if not communicate with you then to suffer with you, to enjoy with you, without such extra barriers.

I guess we could learn a lot from some indigenous cultures where there is assumed respect for other forms of life, even considered as persons or entities.[43] This fear of animism, or maybe in discussions of philosophy the fear of vitalism, is something I am not really convinced of. I am not a philosopher, so my lack of conviction is more emotional or intuitive. Why would vitalism be so dangerous? Why would the assumption that life has similarities be that? I think biologists assume that there is a common source for all life on Earth.[44] And even though life, different life forms are continually differentiating, it does not mean that they would somehow live in a completely different realm from humans. On the other hand, there is the idea of animism, the idea that there is an anima or animus or a soul, or life force, or even some sort of personhood in everything, not only in living things, but in rocks and rivers, and islands and so on. It might seem strange, but there is something in the human way

41 See, for example, Cary Wolfe, *What is Posthumanism?* (Minnesota: University of Minnesota Press, 2010); Dona J. Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Durham; London: Duke University Press, 2016); David Wood, *Thinking Plant Animal Human: Encounters with Communities of Difference* (Minnesota: University of Minnesota Press, 2020).

42 For a discussion of the lack of interiority in plants, see Michael Marder, 'Of plants, and other secrets', *Societies 2013* **3** (1) (2012): 16–23.

43 For a popular introduction, see Robin Wall Kimmerer, *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants* (Minneapolis: Milkweed Editions, 2013)

44 LUCA, the Last Universal Common Ancestor of all life on earth, was mentioned by professor Howy Jacobs in 'Life – A Tree with Three Intertwined Branches', keynote at Aboagora – Between Arts and Sciences Symposium, Sibelius Museum, Turku 24 Aug. 2017.

of thinking that invites to that. I mean, we can get angry with our computers when they don't work, and think of them as somehow animated, so why not? Why not trees? Just because you are silent and slow to our eyes, why would you lack, well, soul. Soul is a difficult word, because soul brings immediately thoughts of the Christian conception of separation of the soul and the body.
Sorry for bothering you with these thoughts, which are probably utterly meaningless to you, or would be, if you could hear me or understand me. But, although I admit the limits of empathy, and dangers of narcissism and anthropocentrism that somehow inevitably are included in my attempts at addressing you, I still hope that you could sense my appreciation for your resilience and for your beauty, living in this marvellous spot and living in this spectacular way lying on the ground, which is not that usual for people of your kin. What else can I say? Except that I hope that my weight is not too much for you to carry, but I don't think so, because your trunk is really thick and you have been obviously lying here for quite a while. I wish you many years to come and thank you for your patience and apologise for my clumsiness, if I address you with the means that are available to me. So sorry for not being able to empathise with you or to suffer with you in an appropriate manner from your perspective. Take care.

This type of compassion for other living beings, like feeling with a pine tree lying on the ground, might seem like reckless sentimentality, but it could also be a first step to recognising our commonality and co-dependence with all life on this planet and acknowledging the necessary sensitivity and thereby also capacity to suffer that is shared by all living beings.

The fourth conversation with the fourth tree, an old pine growing along a rocky hillside, focuses on the idea of plants performing their place, showing in their form the characteristics of the site they live in, demonstrating in their body the circumstances they have experienced and grown through.

FIGURE 4.
Pondering with Örö Pines (4), video still.
Source: Author.

16 May 2022

Hello pine. Great to be here with you on the eastern shore of Örö. The wind is from the west, but it is so strong that it reaches us here, too. You are climbing up on the rock in an extraordinary way and from your trunk I can see that you are a venerable old pine. Of course, saying that you are venerable means using human terminology, which is probably not the right way to do it. I am impressed by your performance; maybe we could call it performance in the sense of accomplishment, like a sports performance, the performance of following the slope with your branches and your trunk. From here, I can see that you have quite a large crown, which continues on the hill, although sticking low to the ground all the way. You make me think of the way that all plants, also trees, and especially the pines here, are expressing the quality of the place where they grow.[45] In displaying the circumstances that you have grown in, not only are you a display of your own history, but you are also a display of this place, and the affordances that this place provides. All the pines here are performing in that sense and in very different ways. They are

45 Craig Holdrege, *Thinking like a Plant: A Living Science for Life* (Lindisfarne: Steinerbooks Inc., 2013), p. 9.

located in slightly different spots and have started to grow, have begun their life, in slightly different moments. Or very different moments.
The idea of plants performing is something that I am supposed to be speaking of tomorrow and I have written about it in several contexts.[46] Many people agree that plants do perform in different senses of the word,[47] and also perform in the sense of presenting themselves or their flowers or fruits for animals, insects mostly, that eat them. Pines are wind pollinated, so your flowers are not spectacular in any way. Your cones are pretty, but they are not there to seduce humans, because they move in other ways. The shape of your body is one part of your performance. There are people who think of the way you grow, by repeating certain features, as a form of restored behaviour that is sometimes used to characterise performance.[48] And some people, like philosopher Luce Irigaray, explain that your body is actually your language, it is saying by doing,[49] performative in a very literal sense. There are people who criticise these ideas of either a semiotic understanding of communicating through performance, or the linguistic understanding of saying by doing, by expressing.[50] I like to think that, besides these sports-like accomplishments that you really do all the time – calling them sports-like is of course stupid, because it is a question of survival for you – I also like this idea that you appear, you appear in the world, for other creatures in the world, and for the world. As Karen Barad might say, you participate

46 See, for example, Arlander, 'Performing with trees', pp. 158–76; Annette Arlander, 'Performing with plants in the ob-scene Anthropocene', *Nordic Theatre Studies* **32** (2020): 121–42: https://tidsskrift.dk/nts/issue/view/8763; Annette Arlander, *Performing and Thinking with Trees*, Art theoretical writings from the Academy of Fine Art 15, University of the Arts Helsinki: https://taju.uniarts.fi/handle/10024/7666

47 Prudence Gibson and Catriona Sandilands, 'Introduction: Plant performance', *Performance Philosophy Journal* **6** (2) (2021): 1–23. https://www.performancephilosophy.org/journal/article/view/372

48 Travis Brisini, 'Phytomorphizing performance: Plant performance in an expanded field', *Text and Performance Quarterly* **39** (1) (2019): 3–21. https://doi.org/10.1080/10462937.2018.1559350

49 Luce Irigaray, 'What the vegetal world says to us', in Monica Gagliano, John. C. Ryan and Patricia Vieira (eds), *The Language of Plants - Science, Philosophy, Literature* (Minneapolis London: University of Minnesota Press, 2017) pp. 126–35.

50 Mirko Nikolić and Neda Radulovic, 'Aesthetics of inhuman touch: Notes for "vegetalised" performance', *Ruukku - Studies in Artistic Research* 9 (2018): https://www.researchcatalogue.net/view/372629/372630

in the performance of the world.[51] Here, when we are performing for the video camera, we could also say that we are not intentionally performing in the sense of putting on a display for the camera. I do that, while you don't necessarily do that, but you are appearing in this place, in this very moment. And I am trying to appear with you.

This idea of place is the crucial thing. One way I try to respect your specific way of being is to come and perform with you where you are, in your home, in your place, the place that you are expressing by your being, rather than bringing parts of you into human settings, like a stage, or a gallery or a museum. Of course, that can be done. If we think of potted plants, or a bonsai, that would not be difficult. But to move you away from here would be really dangerous and difficult and might damage you severely or even kill you, and would be disrespectful. It is difficult to imagine such a tight connection between location and existence, because humans and animals are able to move, so, even though we can have very strong emotional relationships to places or be formed by the places and cultures where we are born, we can still move. Being able to transform yourself depending on where you are to such an extent as you do, that is somehow amazing. Of course, you cannot change yourself back, so to speak. Even if the circumstances now were to change a lot, like they might do with climate change, if it would become much warmer, or new types of insects, or even harder storms, or whatever, you still carry the legacy of your life history with you. You cannot get rid of this bent trunk of yours. Or maybe your branches extend further and maybe they could develop some sort of roots on the ground further up on the hill, moving upwards. At least they can use the hill and the rock and the soil on the rock to attach to, as support. /--/

Anyway, thank you for letting me sit here and my sincerest appreciation and admiration for your beautiful form, which I think is a result of your extraordinary performance. Thank you for that and all the best for the future.

The inseparability of plant and place is emphasised by philosophers like Michael Marder.[52] Emmanuele Coccia goes even further by stressing

51 'Meaning is not a property of individual words or groups of words but an ongoing performance of the world in its differential intelligibility', Karen Barad 'Posthumanist performativity: Toward an understanding of how matter comes to matter', *Signs: Journal of Women in Culture and Society* **28** (3) (2003): 801–31, at 821.

52 Michael Marder, 'The place of plants: Spatiality, movement, growth', *Performance Philosophy* **1** (2015): 185–94. https://www.performancephilosophy.org/journal/article/view/28

that plants not only adapt to their site, but also create or produce their environment as all living beings do.[53] Thus plants, or pine trees here, are not only experts in site-specificity, but the core creators of this world.

FIGURE 5.
Pondering with Örö Pines (5), video still.
Source: Author.

The fifth conversation with the fifth pine (recorded 17 May 2022) is reflecting on the common reluctance among humans to understand plants as sentient and the problem of vegetal consciousness. It is here omitted in the interest of space. The problem of plant intelligence and possible consciousness is a controversial topic discussed by botanists and cognitive scientists,[54] and deliberately avoided by some scientists, as described in a fascinating popular account summarising some recent views.[55]

53 Emanuele Coccia, *The Life of Plants: A Metaphysics of Mixture* (Cambridge: Polity Press, 2019).

54 See, for example, Paco Calvo and Natalie Lawrence, *Planta Sapiens. The New Science of Plant Intelligence* (New York: W.W. Norton & company, 2023).

55 Zoë Schlanger, *The Light Eaters. How the Unseen World of Plant Intelligence Offers a New Account of Life on Earth* (New York: Harper, 2024)

FIGURE 6.
Pondering with Örö Pines (6), video still.
Source: Author.

The sixth and last conversation (recorded 18 May 2022) with the sixth pine tree, an old acquaintance growing in a truly sculptural form on the western shore, circles around returning, resting and the narrow limits of the conditions needed for life. It is not included here, but available with the other ones as a transcript online.[56]

SOME CONCLUDING REMARKS

The practice demonstrated by the above encounters with pines began as still-acts for a video camera together with trees, developed into writing letters to trees by the trees and then into talking with trees directly, recording an impromptu speech synchronised with the video image, as in these examples. This way of working emphasises spontaneity and retains something of the 'real-time' and 'real effort' flavour of performance art, but does it have anything to do with conversations with the trees? In terms of reciprocity expected in human conversations, not very much.

56 See Pondering with Örö Pines https://www.researchcatalogue.net/view/1323410/1634001

The pine trees do not have a chance to intervene directly. Their indirect influence, however, is probably even greater than expected, whether we look at it in terms of inscription[57] or trans-corporeal exchanges[58] or 'discursive practices', which, according to Karen Barad, are 'not human-based activities but rather specific material (re)configurings of the world through which local determinations of boundaries, properties, and meanings are differentially enacted'.[59] Although the practice of talking to trees can rightly be criticised as anthropomorphising and even anthropocentric, Rosi Braidotti's distinction between these two terms might offer some support. For her, human life 'will always be anthropomorphic, that is to say, embedded and embodied, enfleshed, affective, relational', and only 'by embracing resiliently our anthropomorphic frame' can we avoid anthropocentrism and 'become creatively *zoe*-centered', centred on life.[60]

If we think about this way of working as an undisciplinary method, to be developed for various purposes, what could be learned from this experiment? A challenging task with a strict time limit, such as choosing a tree, recording a conversation and transcribing it, editing and publishing a video work and a podcast episode, all in one day, can be useful by forcing one to act decisively and to trust one's initial ideas. The short time frame helps to keep things simple, to avoid ambitious aesthetic goals and to ignore debilitating self-criticism. Moreover, the act of performing for camera and recording one's talk energises the moment, improves concentration and awareness of the tree, and facilitates the generation of ideas. If the main purpose is to generate thoughts, recording the talk is probably sufficient and the video is superfluous, although it does foreground the tree more than sound. The challenge of repeating the task for six consecutive days, however, is perhaps less useful. While it prevents too much preparing, the tight schedule does not allow time for deeper understanding to emerge, and forces one to work with previously assembled resources. The need for immediate

57 Patricia Vieira, '*Phytographia*: Literature as Plant Writing', in Monica Gagliano, John C. Ryan and Patricia Vieira (eds), *The Language of Plants – Science, Philosophy, Literature* (Minneapolis London: University of Minnesota Press, 2017), pp. 217–33.

58 Stacy Alaimo, *Bodily Natures. Science, Environment, and the Material Self* (Bloomington & Indianapolis: Indiana University Press, 2010).

59 Barad, 'Posthumanist performativity', p. 828.

60 Braidotti, 'Four theses on posthuman feminism', p. 35.

'results' can be counterproductive; the material produced is inevitably inconsistent. From the perspective of durational performance, however, the challenge was perhaps too easy. Perhaps reaching a point beyond exhaustion is needed to sensitise one to the trees. Or then not. A softer, slower, more careful, and more caring way of working might be needed for a subtler contact with the trees. Based on this experiment, I would say three days and three tree collaborators could be enough, especially for scholarly or educational purposes. The only way to know is to try.

Besides being a method worth exploring when enlisting the help of pine trees in trying to think anew and shift one's perspective to consider other life forms as sentient beings, talking to trees is a great way to get in touch with the world, regardless of recording tools. Rather than giving 'voice' to the trees, as texts might do, video works can give them some visibility. Whether there might be better ways than talking with the pines, however, is a topic for further research.

Annette Arlander, DA, is an artist, researcher and a pedagogue, former professor in performance art and theory and professor in artistic research at University of the Arts Helsinki, as well as at Stockholm University of the Arts. Her research interests include artistic research, performance-as-research, and the environment. Her artwork moves between the traditions of performance art, media art and environmental art. She is the author of *Performing and Thinking with Trees* (https://taju.uniarts.fi/handle/10024/7666)

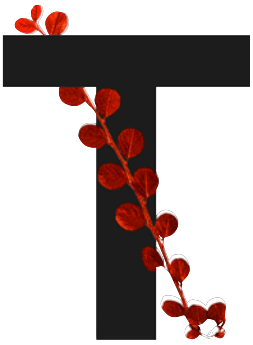
See https://annettearlander.com

Email: annette.arlander@uniarts.fi

Poetry

Nicholas Robinette

Betula Papyrifera



> he best way to dispose of the tops is to lop them so that the large branches will come into contact with the soil. They will then decay readily, will offer but little danger from fire, and will help to improve humous conditions in the forest.
>
> —*Silvical Leaflet 38: Paper Birch*,
> Gifford Pinchot, 1908

White birch,
White rot.

Cells spun
With need,
The whale-white
Mass expands,
And fanning ejecta
Prepare to breed.

Absent of
Light or ken,
The saprophyte whispers
Rhymes in the bole.
Mycelia loosen
The dread thing until:
Quiver,
Unspool,
Let go.

PLANT PERSPECTIVES 3/1 - 2026: 179–180
DOI: 10.3197/WHPPP.63876246815916
OPEN ACCESS CC BY 4.0 © THE AUTHOR

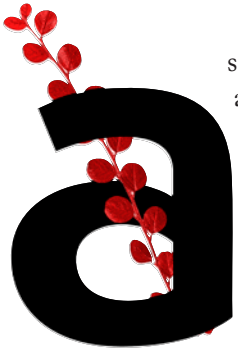
Nick Robinette is an Associate Professor of English and Environmental Studies at Quinnipiac University. His current work focuses on the poetic possibilities and textual function of field guides..

Email: nicholas.robinette@quinnipiac.edu

Image: Jeanette Compton.

Pujita Guha

the plants to live by



small plantain graft whose love for shade, and flies alike, were my endless afternoons, a passage through idle thought; an orchid who lived and wilted with the moon; the poison ivy who could not be touched; and the eucalyptus leaves we'd peel and tear, their shrill smell in the drying wind.

a palm frond's comfort on sunless weekends; a kelp's slow wrangle of my feet, a baobab who refused their shadows be pruned.

the wild stretch of cacti who'd remind me of the Guernica; the jacarandas whose purple marked a summer.

and last to the cyprus tree, its thinning needles that cut through moonlight; every word falling into the ocean.

to every blade, root, or bark,

every form, i could, or not, touch or remember.

to every plant i learnt to

live with,

abide by,

write into time.

PLANT PERSPECTIVES 3/1 - 2026: 181–183
DOI: 10.3197/WHPPP.63876246815915
OPEN ACCESS CC BY 4.0 © THE AUTHOR

Eucalyptus trees at the Elwood Grove, Goleta.
Photo by author.

A NOTE ON THE POEM

This poem is a testament to my time spent with trees in Santa Barbara, California. A city where I spent time as a graduate student at the University. Beyond its status as an idyllic haven, lined with tall palm fronds and arching clear coastlines, Santa Barbara's vegetal ecologies have been significantly altered by its multiple and ongoing forms of settler colonialism. Santa Barbara has been historically stewarded and cared for by the Chumash community, whose lands have been forcibly made into University lands, golf courses and even the present-day airport. Even the oldest eucalyptus grove titled Elwood Grove, home to monarch butterflies at the turn of spring, was built by settler-rancher Elwood Cooper who imported Eucalyptus trees *en masse* from Tasmania in the 1870s; slowly altering local ecologies, and seeding what has now become a regular wildfire hazard in the state. The poem attends to my walking through groves and relating with trees in the area, the horrors visible in this altered ecosystem, and hence the visual metaphor of Guernica. Walking through groves and forests also offers me a sense of engulfment, a slowing down of my breath and time that I hope to encapsulate in the poem's ever widening gaps and spaces. Each tree then is a mark of time – a sense of time the plant bears or holds, and a sense of time for me, as I exist in their company.

Pujita Guha is an artist, curator and currently a Mahindra Postdoctoral Fellow at Harvard University. Her current book project, *Forested Media: Indigenous Lifeworlds in Upland Asia* looks at how, in the post-Cold War era (1990s-present), Indigenous communities in the region (between India's northeast, contiguous Southeast Asia and Southwest China) claim the sovereignty of forests through artistic, popular and scientific media. As an artist and curator, from 2018–2023, Guha co-founded and co-directed the artistic and research platform, The Forest Curriculum, and from 2023–June 2025, Hosting Lands, a decentralised land and ecological curatorial project in Denmark.

Email: pujita.guha90@gmail.com

Book Reviews

Heather Martin

Amitav Ghosh. *Smoke and Ashes: Opium's Hidden Histories*

New York: Farrar, Strauss and Giroux, 2024. 416 pp.
ISBN 978-0374602925 (HB)

One of the observations Amitav Ghosh makes in *Smoke and Ashes*, an eighteen-chapter social history of opium, is that contemporary studies and news articles about the ongoing opioid crisis in the US hardly ever refer to coerced opium use in eighteenth or nineteenth century China; nor do they typically mention the extensive global trade networks that formed a cornerstone of colonial British (and later American) power and wealth. Ghosh, author of many non-fiction and fiction works including the Ibis Trilogy, which depicts the years preceding the First Opium War, here succeeds in writing a historical work with the accessibility of fiction. *Smoke and Ashes* is often personal in its narrative, sharing family anecdotes as well as Ghosh's experiences researching and writing the Ibis Trilogy. It is also episodic; rather than a single chronological arc, the book is composed of short chapters, each with a thematic focus with clearly-rendered characters and events that interweave an expansive and engaging history that can be enjoyed equally in long stretches or in short bursts.

Ghosh's observation of the strange silence surrounding China in contemporary writing on opioids comes towards the close of the text but is illustrative of its first central claim: that, at the expense of China, Great Britain's imperial actions included both the exaggeration (and

PLANT PERSPECTIVES 3/1 - 2026: 185–188
DOI:10.3197/WHPPP.63876246815898
OPEN ACCESS CC BY 4.0 © THE AUTHOR

sometimes outright fabrication) of its own cultural influences upon globalised modernity, as well as the effacement of its active role in promoting opium use, addiction and trade in China. The Enlightenment narrative of (white) Progress in this era benefited from the profits of a booming opium trade that required forcing product into an unwilling China and at once casting a racist portrayal of inevitable human weakness and susceptibility to addiction.

Citing Mark Twain's adage that history tends to rhyme, what Ghosh's wide-ranging book demonstrates is not merely cycles of repetition but historical contiguity through the non-passive role of opium in the machinery of colonial capitalism. Twain is one of a number of well-remembered literati and other cultural icons that appear in the book, including others with more direct links to opium production or consumption. One of these figures is Washington Irving, who helped his nephew William secure a job in Guangzhou at Russel & Co., a key player in the opium trade at the time. Rudyard Kipling is another recognisable writer who appears; his 'In an Opium Factory' aided in creating pervasive and persistent racial biases among Europeans about the use of opium in China and its production in India. The familiarity readers likely have with these famous names and other entities including Royal Dutch / Shell, a descendant of the Royal Dutch Trading Company that once monopolised opium trade in the Dutch East Indies, is itself dispositive of Ghosh's thesis; while the construction of Western cultural identity has largely silenced (and required the silencing of) China's influences, much of what is considered Western cultural legacies, *including* much of what colonisation itself purports to have spread, in fact follows from complex trade patterns through which opium traversed global routes and Chinese objects, practices and knowledge dispersed *to* Western powers in the eighteenth and nineteenth centuries. Just a small handful of the examples Ghosh convincingly details are tea-drinking, contemporary banking, architectural preferences, garden aesthetics and even the FDIC.

In other words, the cross-cultural paths of objects and practices that came, finally, from China through the opium trade indicate both a physical and 'mental' colonisation that included the erasure of China itself as well as of the deliberate proliferation (market creation) of opium among Chinese peoples and the violent exploitation of farmer-producers in India. Tracing an honest history of opium therefore illuminates

the ways it produced the development, in its specific historical forms, of colonialism and racial capitalism, up to and including not only rhyming but still-existing dynamics of power and exploitation as they relate to capitalising on opium in manners both licit, as in pharmaceutical corporations, and illicit, as in cartels. These are dynamics in which 'Euro-descended elites and their allies' participate in the wildly profitable proliferation of dangerous substances while 'the burden was [and is] borne by non-white people in faraway countries' (pp. 212, 211).

The second of Ghosh's major claims, and the one more pertinent to critical plant studies, is that, in concert with human actors, the poppy that produces opium, *Papaver somniferum,* is itself an 'independent biological imperial agent' that is 'distinctive in its social history' (pp. 31, 30). Careful not to risk further objectifying the subjects of colonial subjugation, Ghosh makes clear that the agency of opium never replaces that of human individuals and states. Instead, he writes, '[i]t is because opium is a historical force in its own right that it must be approached with due attention to the ways in which it has interacted with humans over time' (p. 31). That 'these interactions are difficult to conceptualize… [is] compounded by the fact that the necessary vocabulary does not yet exist for thinking about history in a way that allows for the agency of non-human entities' (p. 31). True. And although Ghosh's book will no doubt provoke its readers to think more critically about the place of opium in the historical development of colonial capitalism, it spends relatively few of its 320-pages demonstrating the agential nature of the plant in question. The exceptions make up the most compelling passages in the book to those readers interested in plant thinking, agency or personhood.

The most foundational example of botanical agency in Ghosh's book is opium's evolutionary trajectory through which it developed psychoactive, medicinal and addictive properties and invited its own cultivation and propagation by humans. Ghosh argues that, while many plants produce the same responses in humans, opium is peculiar in its successive but fairly slow generation of new, more potent forms such as heroin and oxycodone. Ghosh likens the dangerous and increasingly addictive path of opium's biological and social evolution to an 'opportunistic' pathogen: often dormant or limited in its effects, when conditions are ripe, 'outbreaks' 'rapidly expand its circulation' (p. 32). The analogy is furthered in its colonial specificity; opium, he writes, was used by the British to

generate wealth by knowingly creating addicted markets in China in much the same way that diseases spread by European settlers were used to kill large portions of the Indigenous populations in North America.

One fascinating example of botanical agency in this book is the manner in which opium creates its own temporality. Citing Robin Wall Kimmerer, Ghosh describes the cycles of spikes in opium use, followed by languid 'amnesia', that ends with a fury of research into the development of new forms of opium and its resurgence. Ultimately, this, Ghosh argues, is the agential force of opium that spun out of colonial control, and what has made it a contemporary 'American' problem:

> What they [Anglo-American smugglers] did not understand was that they were colluding not only with human criminals but also with non-human entities that operate on a wholly different timescale. The unintended consequence of their collaborations was to empower the opium poppy and the coca plant—and the criminal cartels that trafficked them—to a point where they were able to establish a grip on the United States against which all human efforts have proved unavailing. (p. 213)

While I wish the concept of opium temporality and the agency of addictiveness were further developed, Ghosh convincingly argues that human-opium interactions have been far more globally intricate and political and have produced far more *multidirectional* cultural cross-pollination than commonly recognised, particularly in Western discourse. And the bulk of readers who pick up this book because it promises a social history, rather than plant theory, will not only be intrigued by the suggestion of opium's active role, but also strongly satisfied with the book's careful and incredibly detailed telling of the opium trade.

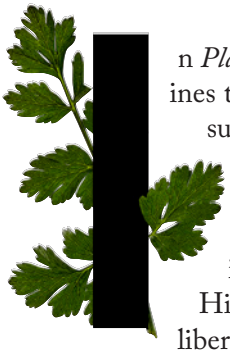
Heather (Fay) Martin is a Ph.D. candidate at SUNY Buffalo studying plant thinking poetries. Their article 'Peter Larkin's Tree Thinking Poetics' was recently published by *ISLE*.

Email: hmartin3@buffalo.edu

Ximena Sevilla

Diego Molina. *Planting a City in the Tropical Andes: Plants and People in Bogotá, 1880 to 1920*

London and New York: Routledge, 2024.
ISBN 9781032076560 (HB), 248pp.



In *Planting a City in the Tropical Andes*, Diego Molina examines the cultural and ecological exchanges that shaped cities such as Bogotá, Colombia, between 1880 and 1920. By centring his analysis on the ways plants and humans together contributed to urban development, Molina offers new lenses for understanding the socio-ecological conditions that impacted Bogotá's urban planning. His attention to trees and ornamental plants, and their deliberate placement in the cityscape, highlights a dimension often overlooked in urban histories. Despite the pervasive presence of plants in the making of cities, scholarship that traces the movement of plants and the strategies people used to facilitate this circulation remains limited. Whether by human design or by chance, plants have persisted over time, adapting organically in ways that often yield unintended consequences. Molina's book ultimately invites us to reconsider the paradigms that have constrained the study of ecological change in urban settings.

The book is divided into two sections that together offer a rich and nuanced exploration of these themes. The first examines the encounters between people and plants, the creation of urban spaces emerging from

PLANT PERSPECTIVES 3/1 - 2026: 189–193
DOI: 10.3197/WHPPP.63876246815914
OPEN ACCESS CC BY 4.0 © THE AUTHOR

those interactions and the role of traditional ethnobotanical knowledge in sustaining the cultural and economic transformations Colombia underwent from the colonial period to the republican era. The second section focuses on the intentional introduction of plants into urban spaces for specific purposes. In the late nineteenth century, the creation of public gardens served both aesthetic and public health goals. Colombian physicians promoted these gardens and promenades as spaces that benefited citizens' health, with trees functioning as organic filters while also signalling modernity. Throughout the book, Molina highlights how colonial authorities and, later, national elites viewed the city as a representation of progress and civilisation. Ultimately, these groups sought to construct a city that would symbolise modernity and demonstrate Colombia's openness to the global market.

By adopting foreign architectural styles and planting European flowering plants and trees, Colombian elites demonstrated that their vision of a modern city largely excluded native plant species. Yet, beyond the elite's gaze, native species often proved better adapted than imported ones, thriving both in urban green spaces and on the city's outskirts. At the same time, Indigenous descendants who migrated to the city from rural areas continued to develop and sustain their cultural traditions and plant knowledge. Although this dynamic was not unique to Colombia, Molina emphasises the broader failure of Latin American elites to value their own resources, noting in particular the nineteenth-century neglect of the region's 'native local floristic richness' (p. 121).

Molina's analysis of Bogotá's *alamedas* (promenades), conceptualised as public spaces, reveals how these green areas functioned not only as symbols of modernity but also as sites of social encounter across classes. While the city became a space to showcase ideals of progress and civilisation, in practice these urban spaces also brought together people who did not necessarily embrace 'modern' values. Parks, gardens and *alamedas* served as meeting points for leisure as well as for the exchange of resources and knowledge. Despite elite fears that the absence of public parks and gardens would signal backwardness, social encounters among different social groups flourished. This dynamic led to formal gardening projects to transform colonial plazas into parks, which officially began in 1880. Until then, the weekly Friday market drew people from neighbouring towns to exchange goods from different regions and environments. This market experience forced elites to coexist with peasants

and other marginalised groups whose social status dated back to the colonial period. As Molina notes, outside observers often saw these markets as not only dirty but also overwhelmingly chaotic. The shift from markets where edible and medicinal plants were traded to gardens dominated by ornamental plants illustrates the impacts of modernisation in Bogotá. The construction of parks and gardens ultimately served to demonstrate the national government's role in promoting and funding elite visions of urban improvement while deliberately disrupting the organic relationships that had long existed in those spaces.

Colombia's integration into the international trade system further shaped these green urban spaces by introducing foreign plant species and expertise. These changes, however, did not eliminate the contributions of local and self-taught gardeners to the foundation and development of Bogotá's modern green spaces. The prestige sought by regional and national administrations went hand in hand with their preference for European practices over local gardening knowledge. Molina supports this claim by examining multiple instances in which foreign perceptions and models of urban nature shaped cities and influenced urban dwellers' interactions. Drawing on archival research, Molina reconstructs the network of specialists responsible for designing and maintaining Bogotá's gardens. On one hand, formally trained gardeners such as Robert Thomson embodied the authority to bring progress to Bogotá's urban spaces. On the other, self-taught local gardeners such as Casiano Salcedo played an equally important role. Although they all shared a common aspiration to use green spaces as symbols of progress, they contributed distinct understandings of plants in urban settings. Molina carefully unpacks this point by noting the significant role of local actors who engaged in importing and acclimatisation of exotic plants to create the illusion of Bogotá as a temperate city. While Bogotá's unique ecosystem is renowned for its diversity, it is not naturally temperate. Through artistic and romantic representations, however, the misconception that Bogotá shared the environmental characteristics of Europe became widespread and even normalised. Molina ties this point to the ways in which replicating European models often blinded planners and elites to local ecological differences.

During the twentieth century, the interplay of urban green spaces and hierarchies of power persisted. Foreign and native plants coexisted in public spaces where entrepreneurs saw opportunities to profit from

displaying exotic species as well as technological innovations. Even as elites sought to maintain social structures that had survived Colombia's independence, they imposed restrictions on access to these green spaces. Entry to parks was tightly controlled and policed from 'immoral behaviors' of visitors deemed insufficiently 'civilized' by elite standards. Iron fences and the visible presence of police officers became symbols of exclusion and control. Park administrators focused on maintaining order and enforcing elite norms within these botanical spaces. The role of *celadores* or caretakers extended beyond tending plants to regulating human interactions within the parks. Pairing this discussion with a compelling image of the *Ruana* and *Cachacos* (p. 134), Molina illustrates the social distinctions between these groups and their perceived suitability – or lack thereof – to share these spaces. The *Ruana* represented marginalised people in traditional Andean clothing, while the *Cachacos* embodied the ideals of a 'modern' society. Usually formally educated, this rising high and middle class modeled European values and behaviours. Following this logic, early twentieth-century planners imagined parks and their trees as having a civilising effect on visitors, hoping that the *Ruana* might eventually adopt the modern norms represented by the *Cachacos*.

Finally, Molina emphasises that this transformation of public green spaces would not have happened without the presence of *celadores*, who mediated the complex relationships between humans and plants. Despite elite aspirations, Bogotá's growing 'modern' population still required wood, which could be obtained only through the labour of those charged with caring for the plants, including servants and women. Throughout the book, Molina avoids reducing his analysis to familiar binaries such as urban/rural, foreign/local, civilised/uncivilised or Western/Indigenous knowledge. Instead, he explores the ways plants functioned as bridges that disrupted these oppositions and transformed green spaces into points of contact. Molina's training as both a biologist and a historian allows him not only to move beyond these binaries but also to develop a nuanced perspective that recognises plants as autonomous entities and political actors in their own right. By dissolving these categorical divides, the book offers a masterfully woven historical account of people's relationships with plants. *Planting a City in the Tropical Andes* is an essential resource for environmental historians,

urban historians and anyone interested in the development of cities in Latin America and beyond.

Ximena Sevilla is Assistant Professor of History at the University of Rhode Island, where she teaches Latin American history. Originally from Lima, Peru, she is an environmental historian whose research combines fieldwork and archival sources to study frontier zones, Indigenous communities, and oral histories of the Andes-Amazon interface known as the Montaña region. She holds a Ph.D. in History and an M.A. in Anthropology from the University of Kansas. Her current book project, *Crossroads of Two Worlds: Living and Resisting Between the Andes and the Amazon, 1500-1850*, examines the entangled relationships of Indigenous peoples and outsiders with the region's unique ecological conditions from the sixteenth to nineteenth centuries, showing how ecological, sociocultural, and ideological considerations shaped its central place in the territorial imagination of colonial Peru and the broader Andean world.

Email: sevilla@uri.edu

Plant Perspectives

An Interdisciplinary Journal

volume 3 / issue 1

ISSN: 2753-3603