

NonWest by North

Marianne North and William Colenso's Responses to Plant Life and the Classification of Economic Botany

Khadija von Zinnenburg Carroll

Introduction

The centrality of the politics of display in botany and natural history are perhaps nowhere more pronounced than in the Kew Royal Botanic Gardens, London. Artists have played a key role in botanising, and in the transfer of botanical knowledge, not only as illustrators of the physical characteristics of botanical subjects, but also in advancing the ways that scientists (in this case study, those that study plant sciences at Kew) have understood, named, represented, categorised and related to plants. Highly sensitive, plants produce chemicals in response to touch, and to those in their immediate environment. For instance, orchids store their scents in pouches until they have need of them. Their colours entice the males into the 'pleasures of pseudocopulation'.¹ Charles Darwin was studying these phenomena in *The Power of Movement in Plants* (1880) – although most closely associated with animal studies in the history of science, Darwin was in fact also committed to botanical studies. His grandfather Erasmus Darwin was famous for his poetic writing about 'plant lives and loves'.²

The following study of Marianne North's plant portraiture, and William Colenso's naming, pursues the notion proposed by the anthropologist of science Natasha Myers about the *practices* of plants that bring them together in an affectively charged, multisensory partnership with insects, humans, and so on. It is an 'otherwise muted register' of observing the sensorial ingenuity and complexity of relation to other species and the environment of plants that is thereby traced from Darwin to the present. To the contemporary scholars that Myers, and

1 Elizabeth Bradshaw, et al, 'Comparative Labellum Micromorphology of the Sexually Deceptive Temperate Orchid Genus Ophrys: Diverse Epidermal Cell Types and Multiple Origins of Structural Colour', *Botanical Journal of the Linnean Society*, vol 162, no 3, March 2010, pp 504–540

2 Cited in Carla Hustak and Natasha Myers, 'Involutionary Momentum: Affective Ecologies and the Sciences of Plant/Insect Encounters', *Differences: A Journal of Feminist Cultural Studies*, vol 23, no 3, 2012, p 80



Marianne North dressed as an Old Testament prophet, photograph by Julia Margaret Cameron, 1877, © Board of Trustees of the Royal Botanic Gardens, Kew

³ There are painters such as Ian McKeever who have referred bodies of work to North. The *Botanical Drift* series of performative interventions at Kew also sought to redress North; see Khadija von Zinnenburg Carroll, ed, *Botanical Drift: Protagonists of the Invasive Herbarium*, Sternberg Press, Berlin, 2018.

by extension this article, refers, plants are expert practitioners, living active rather than immobile lives.

This article analyses how Marianne North's paintings present plants in ways that engage with but also exceed the theories of her peers, such as Darwin and Thomas Malthus. In so doing it positions her as one of the artists that have made a crucial contribution to, and intervention within, the field of botanical conflicts – though she has so far been overlooked in contemporary artistic debates about plant artists.³

Photosynthesis: Marianne North, Julia Margaret Cameron and the Sun

⁴ Condescending comments about Marianne North's botanical illustrations are still made regularly in conversation at Kew, and in print, for instance by William Botting Hemsley, a colleague and friend of North's also at Kew Gardens, who wrote in volume 28 of *The Journal of Botany* in 1890 that 'her painting was a natural gift'. At the same time, Hemsley made it clear that he did not think of North as a botanist as 'she never attempted to master the technicalities of systematic botany'. See Suzanne Le-May Sheffield, *Revealing New Worlds: Three Victorian Women Naturalists*, Routledge, London, 2001, p 85. Hemsley's praise of her talent is yet another example of patronising misogyny, as being attributed a 'natural gift' reduces North's agency as someone who intentionally practices in a certain way. In fact, she studied painting and was not simply endowed with some magic power to paint. She was tutored by a number of artists, including the Royal Academician John Ballantyne (1815–1897), Madeline Von Fowinkel, Valentine Bartholomew (1799–1879), and the Australian Robert Dowling (1827–1886), who taught North oil painting while spending Christmas with the North family in Hastings.

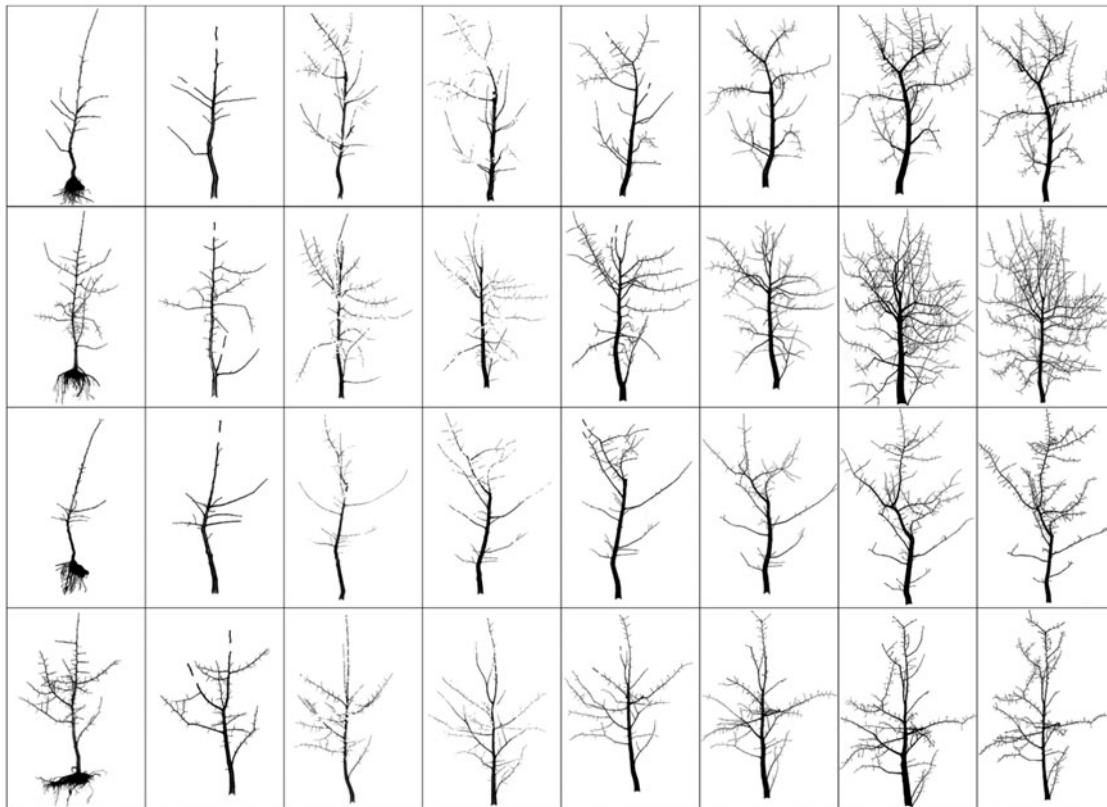
⁵ Tanya Millard, Emma Le Cornu, Rachael Smith et al, 'The Conservation of 830 Oil Paintings on Paper by Marianne North', *Journal of the Institute of Conservation*, vol 34, no 2, 2011, p 161. On botanical illustrations coloured according to numerical codes see Ferdinand Bauer, for instance in: Richard Mulholland, 'Colouring by Numbers: Botanical Art Techniques Investigated', *The Conveyor: Research in Special Collections at the Bodleian Libraries*, <https://blogs.bodleian.ox.ac.uk/>

Julia Margaret Cameron is to pioneering art photography what Marianne North is to global and site-specific plant portraiture. But what was shared between Cameron and North about the definitions of natural science in their representations as North sat for her portrait in Cameron's garden in Ceylon? Did they discuss the criticism they received about the lack of objectivity in their work – work in which they intentionally rejected scientific methods in favour of their artistic response?⁴ The female artist, presumed to be sentient or sensitive, nonetheless takes on a masculine, predatory role of *hunting* plants, and through portraiture and photography *captures* the object.

Travelling the world to hunt plants, North was mixing her limited palette of paints, thereby contesting the 'objective' colouring of botanical illustration by numbers and the authority and precision that came with it.⁵ Her mixing (of colours) extended to the plant protagonists of her pictures that were shown in relation to each other (rather than using herbarium specimens or single plant models suspended in white space). These experiments with symbiosis are akin to Cameron's use of the camera not as a scientific apparatus, but as a means of expressing the inner world of the sitter. Cameron's photographic blurs and scratches heighten North's felt experience and discomfort in the burning Ceylon sun.⁶ Wrapping a white shawl over her skin, her entirely draped figure is framed by a palm that also sheds layers of trunk as leaves are held in graphic array. It is in these 'poses of photosynthesis' that I want to capture the contribution made by North to conflicts between botanical theories of the nineteenth century and those of the present.⁷ This involves looking beyond the reductionist view of anthropomorphism to the contribution of artists.

A Victorian installation artist, North's life's work was made in her large permanent gallery that remains in Kew Gardens to this day. She created an immersive experience for the visitor by diagrammatically hanging eight hundred and thirty-two of her paintings without any space between them. This intensity of immersion created by a single artist's spatial and illusionistic installation resonates with late twentieth-century debates in curatorial strategies for art on an architectural scale.⁸ Where her paintings did not quite fit seamlessly frame by frame, she painted additional strips, attaching these to fill the gaps. Mirroring the greenhouses with her paints she embedded twigs and other parts of the plants she had collected into her pigments, again experimenting with media far in advance of her contemporaries.⁹

The Marianne North Gallery, as she conceived it, is a 'rest house for tired visitors' who undergo a dramatic shift from immersion in organic growth to her oil painted *Gesamtkunstwerk*.¹⁰ The gallery houses an extreme boundary between paint and plant that the visitor experiences in the transition between gardens and gallery. The phenomenological extremity of the gallery is not just 'a unique adjunct to a botanic garden' but a kaleidoscope of the world, designed into the miniature plant universe of Kew Gardens.¹¹ Organised geographically, North's installation was based on a personal aesthetic rather than the conventional modes of display in the colonial botanic garden and museum.



David Edward Allen, photomontage from the series 'pear tree', winter 2015/2016, fine art inkjet pigment print, 56.8 × 40.6 cm

theconveyor/2015/05/27/colouring-by-numbers-botanical-art-techniques-investigated/, accessed 11 June 2017.

6 This is to read beyond what North records in her memoir about the encounter with Cameron. See Marianne North, *Recollections of a Happy Life: Being the Autobiography of Marianne North*, Volume 1, J A Symonds, ed, Macmillan & Co, London and New York, 1892, p 315.

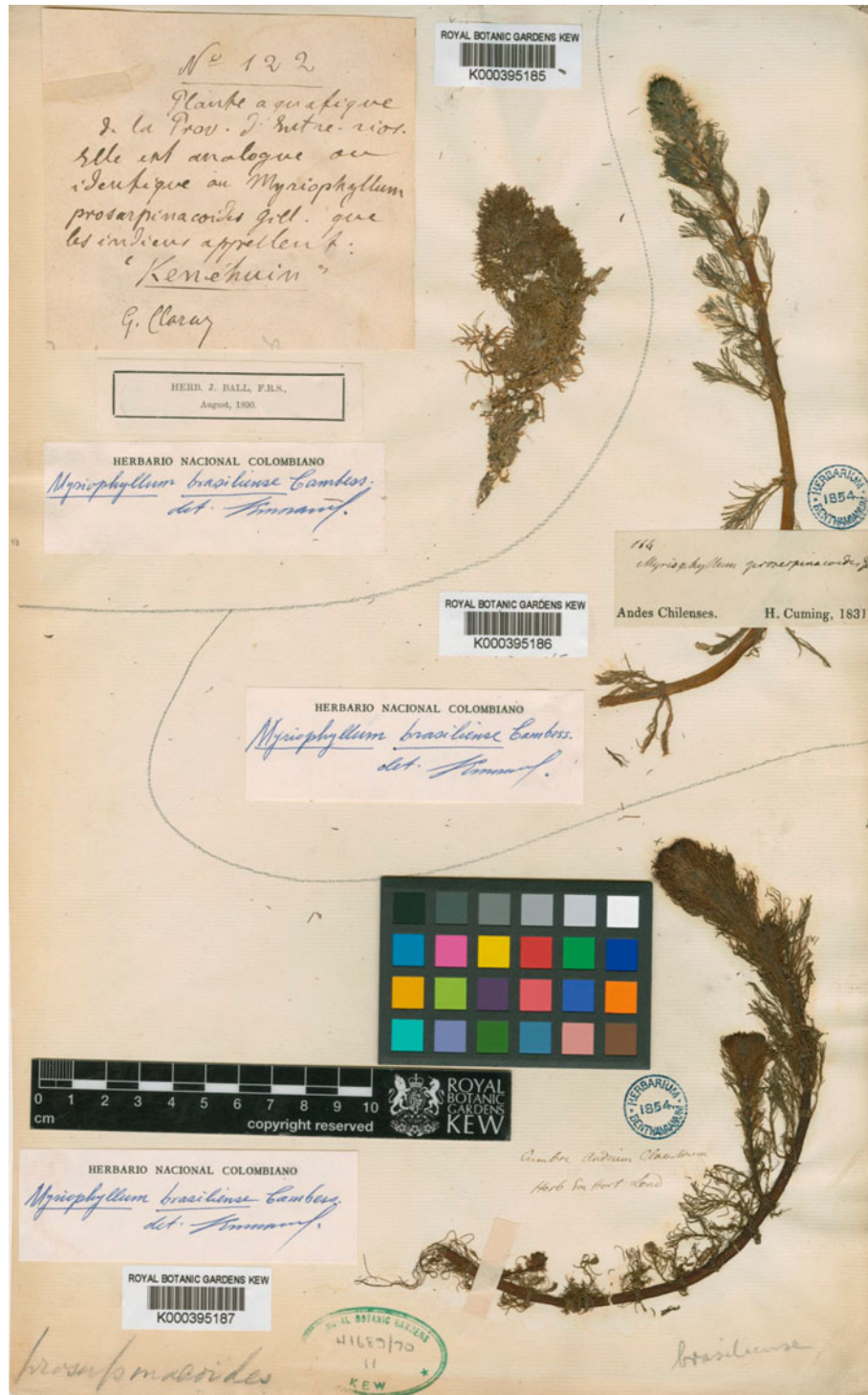
7 On photosynthesis see Wietske Maas, 'The Corruption of the Eye: On Photogenesis and Self-Growing Images', *e-flux* 65, SUPERCOMMUNITY, May–August 2015; and Natasha Myers, 'Photosynthesis' in *Theorizing the*

In contrast, the Marianne North Gallery's non-hierarchical combination of approaches marks her out as a problematic figure whose work sits uneasily in relation to the established scientific and artistic conventions of the nineteenth century. The art historian Lynne Gladston anachronistically calls the North Gallery a 'Cabinet of Curiosities', as if it belonged belatedly to an earlier modern and universal mode of display, arranged according to material.¹² The world within North's gallery is the globe inside-out. North was fascinated with the massive extrusions that the Morton Bay fig tree's roots produce above the surface of the earth and installed her paintings with an equally closed grip of tentacles: a complete vertical growth, to describe it as a salon hang of several paintings densely lined up and down a wall says nothing of the strangle-hold that each cell of a painting has on the wall and all within – totality desired, in eight hundred and thirty-two paintings, continent by continent.

I will argue that for North a process of what I call 'becoming vegetated' by plant subjects can mean thinking and making *with* plants, not just condescending to them as intelligent *like* humans, in a reductive form of anthropomorphism.¹³ An openness to becoming vegetated or thinking *with* plants as complex living beings comes from Carla Hustak and Myers's reading of Darwin, which I in turn use as a prism through which to read North, both in and of herself and in relation to Darwin.



Botanical Drift in the Marianne North Gallery, from left to right: Natasha Eaton, Tom Snow, Mark Nesbitt, Caroline Cornish, Natasha Myers, Alana Jelinek, Khadija von Zinnenburg Carroll, Philip Kerrigan, Rebecca Anderson, 5 June 2014, photo © Olaf Pascheit



Herbarium specimen of *Myriophyllum aquaticum*, several collectors, Colombia, Royal Botanic Gardens, Kew (K000395187)

Contemporary, Series: Lexicon for an Anthropocene Yet Unseen, *Cultural Anthropology* website, 21 January 2016; <http://culanth.org/fieldsights/790-photosynthesis>, accessed 11 June 2017.

- 8 For a further bibliography on this large topic see Khadija von Zinnenburg Carroll and Alex Schweder, '... (Excerpting Collections) From a History of Interventions', OnCurating.org, *Fresh Breeze in the Depots – Curatorial Concepts for Reinterpreting Collections*, Issue 12/11, pp 20–24, http://www.on-curating.org/files/oc/dateverwaltung/old%20Issues/ONCURATING_Issue12.pdf, accessed 11 June 2017.
- 9 Millard et al, op cit, p 161
- 10 Citation from North's diary, which is published in Anthony Huxley, ed, *A Vision of Eden: The Life and Work of Marianne North*, The Royal Botanical Gardens, Kew, Surrey, UK, 1993, p 234.
- 11 This description of the gallery appears in the review in the *Gardeners' Chronicle* in June 1882, cited in Monica Anderson, 'A Monumental Autobiography: Marianne North's Gallery at Kew Gardens', *Limina: A Journal of Historical and Cultural Studies*, vol 9, 2003, p 66.
- 12 Gladston also uses the twentieth-century method of montage to read North. Gladston's is the perspective of a trained botanical illustrator who gives the insights of an artist into the composite approaches to image making based on the use of photographic materials. Lynne Gladston, 'The Hybrid Work of Marianne North in the Context of Nineteenth-Century Visual Practice(s)', doctoral thesis, University of Nottingham, 2012.
- 13 This criticism can easily be made of Peter Wohlleben,

North provides an early critique of the colonial botanist and artist as mere hunter. Actor Network Theory's refocusing on non-human agency enables this view of North as inverting the human expert in relation to non-human life.¹⁴ In the process, North may be seen to contribute more than just botanical theories. In what Mihnea Mircean would call a 'Daphnian' transformation from woman to tree, the superiority of the human species that might be attributed to Darwin's theories does not find illustration in North's non-hierarchical gallery.¹⁵ The artist's representation of botany instead provides a counter to the colonial economic enterprise that she witnesses first-hand.

Conflict in Botanical Theories: Darwin and Malthus

Embedded into North's plant paintings are biographical and historical sources in which botany is instrumental to the beginning of the free market and evolutionary theories, which come into being at the same time.¹⁶ This section reads these theories as a context in which North composed her paintings of botany in conflict.

In 1855, North began her flower portraiture in London and her father, with whom she lived, complained of her making 'a most exclusive business of' painting.¹⁷ This focus crystallised into the proposal she sent to the director Joseph Hooker in 1879 to build the gallery in the gardens for her paintings. In Kew, the botanical sciences and the botanical arts are kept at a distance because of a seemingly unresolvable conflict over the interpretation and representation of botany. Lorraine Daston has keenly supervised by scientists on the presumption that the artist lacks the knowledge to make accurate scientific representations.¹⁸

North's contribution as an artist to the botanical discourses that inform the field to this day has been overshadowed by being cast as merely a female flower painter of the nineteenth century. The biographical details of her class and contacts that enabled her to travel around the British Empire at the time provide an important backdrop but have narrowed the scope of the reception history of her paintings.¹⁹ Biographies tend to emphasise that North's father knew William Hooker when he was director of Kew Gardens and North later knew William Hooker's son Joseph, who succeeded his father as director of Kew. This has the effect of presenting the unruly female artist achieving her tour de force gallery through (male) family connections, rather than her own agency and intentionality.²⁰

Theories of conflict between species came to the fore in the field of botany in the nineteenth century through the work of Darwin.²¹ North received direct advice from Darwin on where to go to paint her plant protagonists and presumably how to realise her larger intellectual project through painting the plants of the world.²² *The Origin of Species* was published in 1859 using material from Darwin's Beagle expedition.²³ It set out the scientific theory of natural selection as the process by which populations evolve, which is considered the foundation of evolutionary biology, but it also had a wider influence on disciplines such as anthropology and botany.



Marianne North, *Scotchman Hugging a Creole, Brazil*, oil on paper, 1880, © Board of Trustees of the Royal Botanic Gardens, Kew

The Hidden Life of Trees: What They Feel, How They Communicate: Discoveries from a Secret World, Jane Billingham, trans., Greystone Books, Vancouver, 2016.

- 14 See Bruno Latour, *We Have Never Been Modern*, Catherine Porter, trans., Harvard University Press, Cambridge, Massachusetts, 1993; and Petra Lange-Berndt, ed, *Materiality*, Series: Whitechapel Documents of Contemporary Art, MIT Press, Cambridge, Massachusetts, 2015.
- 15 Mihnea Mircan, *A Biography of Daphne*, manuscript shared with the author
- 16 See Londa Schiebinger, *Plants and Empire: Colonial Bioprospecting in the Atlantic World*, Harvard University Press, Cambridge, Massachusetts, 2007; Patricia Fara, *Sex, Botany & Empire: The Story Of Carl Linnaeus and Joseph Banks*, Columbia University Press, New York, 2004; Alana Jelinek, Philip Kerrigan and Khadija von Zinnenburg Carroll, "'Plants in their Homes': Or the Tendency to Strangle the Other with Anthropomorphism", in Carroll, ed, *Botanical Drift*, op cit, p 77.
- 17 Cited by Brenda Moon, in 'Marianne North 1830–90', Huxley, ed, *A Vision of Eden*, op cit, p 235
- 18 Lorraine Daston and Peter Galison, 'The Image of Objectivity', *Representations* 40, Special Issue: Seeing Science, autumn 1992, p 98
- 19 Biographies to date include: Dea Birkett, *Spinsters Abroad: Victorian Lady Explorers*, Basil Blackwell, Oxford, 1989, which describes the activities of a number of nineteenth-century itinerant women artists; Laura Ponsonby, *Marianne North at Kew Gardens*, The Royal Botanical Gardens, Kew,

There are at least two ways of reading Darwin's influence on North and the discourse of 'botanical conflicts'. The neo-Darwinian one is to read *The Origin of Species* as foregrounding violent conflict and survival of the fittest. The other, in contrast, is to read the moments in Darwin and North's works where there is an openness to influence from the plant, of the kind that does not assert the superiority of the human species. North has traditionally been aligned with Darwinism, but contemporary reappraisals of her by feminist environmental historians, such as Natasha Myers, place her also within the latter reading of Darwin.²⁴ In an article on 'Involutionary Momentum', Myers and Hustak pursue a subtle but important difference in the way that Darwin has been received by biological science. They characterise the resistance of 'Neo-Darwinians' to 'the moments of perplexity, excess, and affective pull, moments when Darwin got caught up in the energetic momentum that ingathers organisms in complex ecological relations'.²⁵ 'Ingathering' and 'involuting' are terms that propel their counter reading of Darwin as being drawn into the sexual play of plants, hence 'involuting evolution'. The pleasure plants experience in Darwin's observations of them are reduced to a rational, calculating, functionalist logic of reproductive outputs. Chemical ecology has discovered a 'selfish gene' that regulates the energy expenditure of plants and enhances reproductive fitness for long-term species survival.²⁶ Hustak and Myers contrast the chemical ecologists' instruments for capturing volatile chemical attractants to Darwin's methods of observation, in which he describes the sensual textures and colours, the tastes and smells of pollinators.²⁷ It is the difference in the language used to represent plant sex and violence, attributed to interspecies relationalities, and registered in contrasting scientific practices, that this article also seeks to tease out.

It has been argued by Philip Kerrigan that North's paintings illustrated Darwin's theories.²⁸ The violent conflict between species has been seen as evident in paintings of the carnivorous and strangler plants. However, a rejection of neo-Darwinian theories of botany provides a potential counter-interpretation of North's illustration of ideas concerning continual conflict in Darwin, which can be made based on her paintings, diaries and artistic process. The erotic charge of North's flower paintings also contributes to this argument about the 'vegetalization' of her vision.²⁹ Kerrigan argues that North struggled to reconcile the natural beauty of the plants, which she saw and enjoyed around her, with the knowledge that they were continuously engaged in conflict with each other. He attributes this cognitive dissonance to a romantic and natural theological view of nature, one that wishes to equate what is beautiful with what is harmonious. In this reading of North, a moral judgement of conflict is read into the language of her diaries. North writes: 'It seemed difficult to believe that those delicate velvet leaves and crimson stalks which ornament the tree so kindly at first, should start with the express intention of murdering it and taking its place!'³⁰ In contradiction to the most obvious reading of this language, the strangler figs are not painted as 'murderers' in *Scotchman Hugging a Creole*, to give one of several instances of violence in her paintings. Instead, relational stranglehold could be read as central to North's whole project, and the 'hugging' colonial Scotsman could be strangling 'a creole'. Hierarchy and domination play out between plant species but also between humans and non-humans in North's paintings and biography. 'Another day we rode father [sic] into

Surrey, UK, 1996; and Ray Desmond, *Kew: The History of the Royal Botanical Gardens* [1995], The Harvill Press with The Royal Botanical Gardens, Kew, London, 1998. Feminist and postcolonial histories of North include: Marion Tingling, *Women into the Unknown: A Source Book on Women Explorers and Travelers*, Greenwood Press, New York, 1989; Susan Morgan, *Place Matters: Gendered Geography in Victorian Women's Travel Books About South-East Asia*, Rutgers University Press, New Jersey, 1996; and Barbara T Gates, *Kindred Nature: Victorian and Edwardian Women Embrace the Living World*, University of Chicago Press, Chicago, 1998. More recent relevant studies include Isabel Hoving, *Writing the Earth, Darkly: Globalization, Ecocriticism, and Desire*, Lexington Books, Lanham, Maryland, 2017.

20 An earlier version of my argument in this article was presented in 'Botanical Drift: Economic Botany and Its Plant Protagonists' at the conference *Vegetal Mediations: Plant Agency in Contemporary Art and Environmental Humanities*, Central European University, Budapest, 6 May 2017.

21 North also knew Darwin's cousin Francis Galton, famous for his work on eugenics (1822–1911).

22 Darwin told North, in her words, that she 'ought not to attempt any representation of the vegetation of the world until I had seen and painted the Australian, which was so unlike that of any other country, I determined to take it as a royal command and to go at once', in North, *A Vision of Eden*, op cit, p 151.

23 Charles Darwin, *The Origin of Species by Means of Natural Selection or the Preservation of Favoured*

the forest, and saw still bigger bunya tress, and great skeleton fig-trees hugging some other victim-tree to death, with its roots spreading over the ground at its base like the tentacles of some horrid sea-monster.³¹ On the topic of relationality, North historiography tends to dwell on her father and her choice to paint rather than to marry after his death. Do her plant protagonists play out relationships of dependence that she experienced in life? With questions like these, which are a product of the literature on North, does the personal biography play into the depoliticisation of the figure of the female artist?

North's vast oeuvre of plant paintings is a portrait of the politics of empire, including the dramatic extraction of natural resources, in cotton plantations for instance, and many other sites of colonial economic botany. The section of her diary that immediately follows the account of strangler figs in Sarawak, Borneo, is rarely cited but makes a link between the felling of victim-trees and colonial genocide: 'The work of destruction had begun, and civilized men would soon drive out not only the aborigines but their food and shelter,' she writes in Australia.³² The concerns of humanitarian discourses about indigenous poverty after colonisation due to lack of access to land is clearly felt throughout her texts. The discipline of botany, which researched resource extraction through agriculture using indentured and slave labour, operated in the wider context of colonial control and North openly critiques its misuse. The commodity histories represented in some of the other articles of this special issue are but a sample of the vast botanical resources that the British (and other) empires researched and in part cultivated and exported (for example sugar, rubber, spice).

North describes indigenous 'brush-turkey' hunting with the technical detail of a proto-anthropologist and vilifies the 'useless murder' of the hunting of animals for pleasure:

Great piles of sawdust and chip, with some huge logs, told that the work of destruction had begun, and civilized men would soon drive out not only the aborigines but their food and shelter. Under the trees were many of the leafy mounds made by the brush-turkeys to put their eggs in... A poor little sloth-bear, was shot for me before I could say 'don't' – so soft and harmless, all wood and no body or bones. I felt so sorry for the useless murder. They [the indigenous people maintaining the land] also burned the grass... When by accident the flames come too near, every white man, woman and child has to take branches and beat it out, which the blacks sit down and sigh. The young grass is stifled by the sense mass of dry tufts above it. The only way of giving it necessary room and air is by burning off the old grass, and its ashes are the best manure for the young shoots.³³

North astutely recognises the importance of 'burning off' in Aboriginal land management practices which are still today struggling to assert themselves in the dominantly white parks and gardens culture of Australia. These critical sections of her diaries can also be read within the larger move to civilise the hunter-gatherer societies into becoming belated participants in the Neolithic Revolution in which settlement and new knowledge of agriculture led to the domestication of plants. Her observations as guest of the colonial elite in India, Java, Ceylon, Borneo,

Races in the struggle for Life [1859], Bantam Classics, New York, 1999

- 24 Natasha Myers, 'An Anthropologist Among Artists in the Gardens', in Carroll, ed, *Botanical Drift*, op cit, pp 69–72
- 25 Hustak and Myers, 'Involuntary Momentum', op cit, p 82
- 26 Ibid, p 75
- 27 Ibid
- 28 Philip Kerrigan, 'Marianne North: Painting a Darwinian Vision', *Visual Culture in Britain*, vol 11, no 1, 2010
- 29 Hustak and Myers, 'Involuntary Momentum', op cit, p 79
- 30 Marianne North, *Recollections of a Happy Life: Being the Autobiography of Marianne North: Vol 1*, Susan Morgan, ed, University of Virginia Press, 1993, p 246
- 31 North, *A Vision of Eden*, op cit, p 160
- 32 Ibid
- 33 Ibid
- 34 Gladston writes that North was 'an unconventional woman and a non-conformist who was often dismayed at the ignorance of her class and its ideals and avoided mainstream society whenever possible... Nevertheless, her independence was very much dependent upon her high social standing and continuing involvement in capitalist/colonialist society.' Gladston, *The Hybrid Work of Marianne North*, op cit, p 19.
- 35 Mélanie Bouteloup, Anna Colin, Françoise Vergès and Serge Volper, *Tropicomania: The Social Life of Plants*, <http://www.betonsalon.net/IMG/pdf/tropicomania-publication-web-2.pdf>, accessed 11 June 2017

Australia, New Zealand, South Africa and the Seychelles during her world-wide travels around the British dominions are not confined to the quaint outputs of the picturesque Victorian flower painter photographed on the terrace.³⁴ Her diary includes a conservationist's scrutiny of the 'destruction' of plants, animals and people (of the 'native' as they were classified together in the nineteenth century).

Colonial expeditions set out specifically with the aim to collect plants – Kew's extant 'Wardian case' was the first portable greenhouse, the transport mechanism for economic botany. What follows the cultivation of economic crops of sugar and other plants are monocultures and systems of slavery. Economic plants are said to go through four phases of becoming: domestication, exchanges, modes of production and regulation.³⁵ Kew's Economic Botany Collection (formerly Museum of Economic Botany) is a nineteenth-century collection of materials from throughout the globe that continues to collect and now holds over eighty-five thousand specimens.

North's paintings are hybrid also in the sense that they are composite fictions, artistic and scientific, based on the relationships of live plants and of long-dead plants that she observed. For instance, the *Amherstia nobilis* was not in flower when she was in Borneo, so she painted it from a specimen in the Kew herbarium. She sets its orchid-like blossoms in a beckoning hand gesture against a backdrop of other plants. Like Darwin's complex description based on the senses, what Hustak and Myers call 'affective entanglement' with orchids in the event of fertilisation, in North's paintings we also see plants signalling and conducting interspecies communication.³⁶ This is in contrast with the contemporary neo-Darwinian reduction of plants to reactive automatons. Hustak and Myers's feminist turn to 'affective ecology' instead looks at Darwin's search for experimental proof of orchid fertilisation, attuned to pleasure and play in the process. Open thereby to how plants are internalised and take effect on the human body with their 'extensive, distributed, entangling' plant bodies, for Hustak and Myers, Darwin's 'multisensory experimental techniques' continue in a trajectory of thinking about plants that they attribute to Gilles Deleuze and Felix Guattari.³⁷

To 'become vegetalized' means to observe the effect of plants with a greater freedom than a scientific expert in botany or an artist in his employ had the capacity to do in the nineteenth century. While there are countless precedents of nineteenth-century amateur artists and scientists who clearly fetishise and thereby include an erotic charge in their images of nature, Marianne North unfurls flower painting as a genre beyond what has traditionally been regarded as lowly kitsch in the academic hierarchy of fine art. A lack of access to nudes – as opposed to North's male counterparts who would have had unquestioned access – meant that Victorian women painters were relegated to an array of 'appropriate' subject matter. Art history has made a lot of this limitation for women of only being able to paint landscapes, children and flowers.³⁸ However, just as North's cosmopolitan thinking cannot be reduced to her class, her obsessional painting cannot be classified as part of a dilettantish array of feminine crafts.³⁹ Nor is North disabled by the genre of flower portraits; on the contrary she paints plants with a dissolution of rational form comparable in its intensity to Van Gogh. Hung together as they are, the paintings overwhelm familiar formats of



Member of Kew staff, possibly Harry Ruck, Storekeeper, packing a Wardian case, 1940, © Board of Trustees of the Royal Botanic Gardens, Kew

36 Hustak and Myers, 'Involuntary Momentum', op cit, p 79

37 See Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, vol 2, University of Minnesota Press, Minneapolis, 1987, pp 5–15. See also Matteo Pasquinelli, 'The Arborescent Mind: The Intelligence of an Inverted Tree', *Botanical Drift*, op cit, pp 164–173.

38 See Linda Nochlin, 'Why Have There Been no Great Women Artists?' [1971], in Linda Nochlin, *Women, Art and Power and Other Essays*, New York, 1988, pp 147–158

human perception. With them North asserts not only her own artistic agency but a coherent philosophy that is based on her own perspective on what we might in retrospect call the 'affective entanglements' of a vegetalised Darwinism.

Naturalising rapacious competition and violent hierarchies is one aspect of Darwin's theories that is read from North's paintings by Alana Jelinek and Philip Kerrigan, for different reasons.⁴⁰ Jelinek emphasises that North and Darwin were working at a time governed by liberal economics. In botanic economy, as in the financial predictions for future populations, the fittest and strongest were seen to win out over the weaker in the competition for resources. This idea can be traced from Darwin back to Thomas Malthus's *An Essay on the Principle of Population* (1798) in which he argues that population growth tends to outpace its means of subsistence unless kept in check by factors such as disease, famine or war, or else by lowering the birth rate through such means as sexual abstinence.⁴¹

The ontology of neo-Darwinian science is of a fully mechanised set of narratives about reproduction and economy. If inverted, Kerrigan's theory



Marianne North painting a Tamil boy in Mrs Cameron's house, Ceylon, by Julia Margaret Cameron, 1877, Wikimedia Commons

- 39 I use 'cosmopolitanism' in the same sense as Nicholas Thomas, *Islanders: The Pacific in the Age of Empire*, Yale University Press, London, 2010, to describe the cross cultural exchange of knowledge between islands during the long nineteenth century.
- 40 Jelinek, Kerrigan, Carroll, "Plants in their Homes", in *Botanical Drift*, op cit, pp 73–84
- 41 As Alison Bashford and Joyce Chaplin's rereading of Malthus emphasises, the global reach of Malthus's references in the theory of population also influenced Darwin. See Alison Bashford and Joyce E. Chaplin, *The New Worlds of Thomas Robert Malthus: Rereading the 'Principle of Population'*, Princeton University Press, New Jersey, 2016.
- 42 Natasha Myers, 'Sensing Botanical Sensoria: A Kriya for Cultivating Your Inner Plant', Centre for Imaginative Ethnography, 2014, <http://imaginativeethnography.org/imaginings/affect/sensing-botanical-sensoria/>, accessed 11 June 2017
- 43 See Natasha Myers, *Rendering Life Molecular: Models, Modelers, and Excitable Matter*, Durham, Duke University Press, 2015
- 44 Conversation with Natasha Myers in the Marianne North Gallery, 3 June 2014
- 45 See Michael Marder, *The Philosopher's Plant: An Intellectual Herbarium*, Columbia University Press, New York, 2014
- 46 North, *A Vision of Eden*, op cit, p 177
- 47 Khadija von Zinnenburg Carroll, 'What Would Indigenous Taxonomy Look Like? The Case of Wilhelm von Blandowski', *Arcadia* online journal, no 12, 2014, Environment and Society Portal, <http://www.environmentandsociety.org>

about the influence of Darwin's science on North's anthropomorphism of plants instead visualises how Darwin was taken in or 'vegetalized', as Myers has put it, by plants.⁴² North's paintings can then be read as visual evidence of plant protagonists' agency to 'involute evolution'. Darwin was anthropomorphising the plants with human-like intelligence, but even more so, their plant intelligence took Darwin in.

Plant sentience that is not human is made visible in North's oeuvre. This is possible in painting because it is not bound to the same conventions that the scientists are in claiming that plants are non-sentient.⁴³ North expands on the non-conventional aspect of Darwin's thought that recognised plant sentience. Responding to North, Myers has argued that theories of mechanism fail because of the contradiction between views of organisms as rational actors making choices but also as blind automatons without agency.⁴⁴ North's storytelling through these images is not a simple illustration of conflict in Darwin's theories of evolution but a fully-fledged vegetal philosophy that runs counter to mainstream botanical historiographies. Recent plant philosophy draws attention to botany from far and wide to illustrate philosophical concepts, a research process that has to be distinguished from observing a plant, as far as is possible, in its own terms.⁴⁵

Colonial Classification: Colenso and Hooker

Reverend William Colenso arrived as a missionary in *Aotearoa* (New Zealand) in 1834, was defrocked in 1852 for fathering an illegitimate Māori son, and went on to become a politician, activist for Māori causes, translator and botanical specimen collector for Kew, promulgating the use of Māori names for New Zealand species, rather than the formerly unquestioned use of Latin/English for the classification of New Zealand plant species. Colenso and North's work and lived experience both operated within and contributed to imperial categorisations of life forms, and variously challenged imperial hierarchies from within, having to negotiate the conflicts between botanical theories that animated the nineteenth century. Bringing North together with Colenso is a juxtaposition that reflects my methods as an art historian which are informed by my practice as an artist and curator. The form of historical revisionism in my practice aims to enliven the significance (now and then) of the failure to recognise and legitimise North and Colenso amongst their privileged, colonial peers.

North already commented as she travelled past hop-gardens in the colony of Victoria that 'it is curious how we have introduced all our [British] weeds, vices, and prejudices into Australia, and turned the natives (even the fish) out of it'.⁴⁶ This register of complaint about the environmental impact of the colony on local life in her writing resonates with many other botanists and collectors such as Wilhelm von Blandowski. Blandowski's career ended spectacularly in the colony of Victoria, Australia after pitting Aboriginal nomenclature against colonial scientific nomenclature.⁴⁷ North was not alone – as a collector of specimens, a plant hunter for Kew from the British Empire – in finding Kew's economic botany at odds with the local plant-hunting practices. Her experience of not being taken seriously as a scientific collector of specimens for Kew's herbarium was not only because she was a woman and an artist. There was great

org/arcadia/what-would-indigenous-taxonomy-look-case-blandowskis-australia, accessed 15 March 2018

competition among botanical collectors at the time because of the honour of discovering new specimens. Money could be made from collecting in the colonies and here too North found herself outside her field, for the collectors were a mix of paid ‘artisan’ collectors and ‘gentlemen’ who circulated the globe collecting botany for the scientific centre-of-empire to which they would send their specimens.⁴⁸ In these centres, the specimens would be assessed by the experts in charge: in London’s Kew it was the Hookers (father and son) who established and controlled the collection.

While in Melbourne, the renowned botanist Baron von Mueller ‘calmly pocketed’ the *Eucalyptus macrocarpa* that North had collected and ‘was saving for Kew’.⁴⁹ Such complaints in her diary reflect the network of colonial botanists operating both in conflict with the local indigenous populations and their botanical practices and with the lesser collectors for Hooker in Kew. In the Kew Gardens archives there are many more letters accompanying plant specimens from collectors frustrated by colonial botany. A digression into the letters from *Aotearoa* sent by just one such collector, Colenso, gives further detail to the context in which nineteenth-century conflicts over botany were being administrated in the centres of empire. In his letters to Hooker, Colenso argued persistently for the inclusion of Māori names for the plants he was collecting.

Colenso’s letter from Monday 3 August 1846 is a prime example:

My Dear Hooker

... I have sent you portions 2/3rds and more of everything I have laid hands on, and have numbered them all, or nearly so; and that, principally, for this reason – should you wish to get any better specimens of any of the scraps, in your sending me the No. I shall be the better able to secure them for you, I have, also, given you a List (in the Case) with a few remarks en passant which, brief as they are, may not altogether be unacceptable. You will also find a few Bones for Prof. Owen...

Having written so very much (considering how greatly pressed I am for time) for you, in the ‘List’ – this letter will necessarily be short. How is it, my dear Sir William that so many of the Native names of places and things get so often misspelt – both in ‘the Lond. Jour. of Bot.’ and in the ‘Icones plant.’? – I can but think that I wrote them plainly. If it be at all desirable to make known the locality, such can only be attained by strictly adhering to the orthography; for such is the construction of the N.Z. language (possessing only 14 letters) that the omission or alteration of a single letter in a word is sufficient wholly to destroy its meaning, or (what is worse) to transform it into a word of more than equivocal sense. – Allow me, also, to request, that you will be pleased to turn to Cunn’s Ms., for the specific name of his N.Z. *Persoonia* which cannot (must not) be ‘Tora’ (a most obscene word); Toru is the Native name of the Tree, and Cunningham, who had all the names either from, or corrected by, the Missionaries, – must have written it Toru. If you find it to be as I suppose, you can easily alter it; and if not, do try to change its nom. sp., for any person, however respectable, using such a word to a Native (in enquiring after the Tree), would infallibly insure to himself anything but a good reputation.⁵⁰

In over fifty years of correspondence with his ‘Dear Hooker’, Colenso recurrently urged him in this tone to adopt local names and hence systems of thinking about botany. By learning the Māori language,

48 See Anne Secord, ‘Corresponding Interests: Artisans and Gentlemen in Nineteenth-Century Natural History’, *British Journal for the History of Science*, vol 27, no 4, 1994, pp 383–408.

49 North, *A Vision of Eden*, op cit, p 177

50 Ian St George, ed, *Colenso’s Collections Including the Unpublished Work of the Late Bruce Hamlin on William Colenso’s New Zealand Plants Held at Te Papa*, Wellington, The New Zealand Native Orchid Group Inc, 2009, pp 196–197

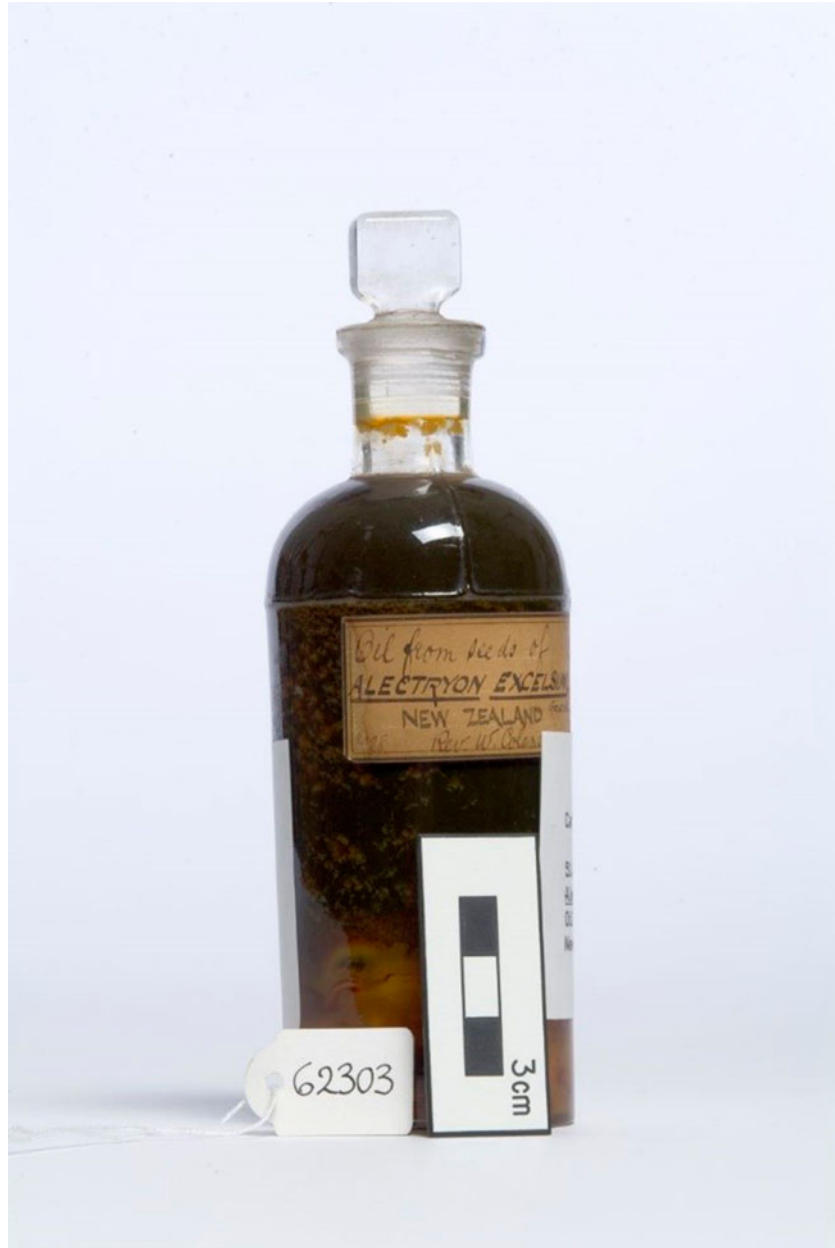


Carved Maori gourd (*Lagenaria siceraria*), given to Kew by William Colenso in 1853, Royal Botanic Gardens, Kew (EBC 54668)

Vegetable, — I will be sure to send you
 some at the right time.

In my paper on the Kumara,
 in vol. xiii. "Trans. N. Z. J." (above men-
 tioned), I have said, that I had good
 reason for believing that the var. cal-
 led Parakaraka was the identical
 one which Cook & Banks saw, and
 named Spon. chrys. — but, from ^{Maori} fur-
 ther conversation with my old ac-
 quaintance (whom I have known for
 39 years!) I find, that the sort named
Kio Kiorangi (p. 35, loc. cit.), is still
 more likely to have been that sort;
 its Maori name, also, bearing an in-
 dication that way: — Kio kio =
 the 26th. or 27th. night of the moon, or her
 appearance on that night; and
rangi = sky, indicative of the whence,
 or the great goodness, or the nobility,
 of this var. of tuber, — i.e. long, narrow,
 curved, golden — spotted

Kew JDH/2/1/4, Colenso's letters to Joseph Hooker, Royal Botanic Gardens (Kew), Records
 Originals at Royal Botanic Gardens, Kew, Library Letters



Oil of titoki (*Alectryon excelsum*), given to Kew by William Colenso in 1851, Royal Botanic Gardens, Kew (EBC 62303)

Colenso began to see the mistakes that were being made in the classification of local plants. The implication was that they were being incorrectly named, which in nineteenth-century Natural History was part of global centre-periphery conflicts about the power over botanical rules and definitions.⁵¹ In this context, challenges to European science stemming from colonial expeditions resulted in the establishment of a British Association for the Advancement of Science commission in 1842, which proposed

⁵¹ See Khadija von Zinnenburg Carroll, *Art in the Time of Colony*, Farnham, Ashgate, 2014, especially chapter three.

rules for nomenclature in natural science, aiming to counter uncontrolled proliferation of naming in the colonies.⁵² Hooker described the problem in regards to the Australian botanist Ferdinand von Mueller, saying he ‘keeps vomiting forth new genera & species with the lack of judgement of a steam dreading machine’.⁵³ In the literature this is presented as a result of ignorance, the young colonies presenting excess and chaos to the imperial scientific system. It can also be seen as systemic difference through which local observation produced a plant knowledge that did not align with imperial botany.

‘Language arises from landscape’, Colenso wrote in his essay on the failures of colonial nomenclature.⁵⁴ He was infuriated by the lack of his suggested indigenous names being adopted and was unrelenting throughout his life in lobbying Kew to alter its stance on the nomenclature. However, burdened by unequal power relations, there is a settler-colonial sense for the hilarity and anger with which colonial botany would be received by the locals. Peter Wells’s biography of Colenso reads his relationship to Hooker from their exchange of letters and against the shifting power relations between them. While once Colenso had been grovelling in his offerings of plant specimens to Kew and Hooker harsh in his criticism of them, later Colenso funded Hooker’s book. Wells reads Colenso’s critiques of Hooker’s *Hand Book of the New Zealand Flora* (cited at length below) as payback for the way he rejected the names and species of new botany that he had proposed to Kew.

Specimens, when sent to London, were to be classified as Hooker saw fit, and none of their indigenous names or taxonomic relationships were maintained in Kew’s records, which meant that the same mistakes continued to be made again and again. On 29 November 1865, Colenso sent name-by-name errata of ‘Dr. Hooker’s *Hand Book of N. Zealand Flora*’, in which he returns again to the *Persoonia* he wrote to the author’s father about twenty years earlier:

Discaria Toumatou (!!) I hate this sp. name. It is a great pity you did not earlier make this a sp. I found it in 1838, and sent it early to Cunningham [Allan, 1791–1839, Government Botanist for New South Wales, visited NZ twice, the second time spending 3 months with Colenso: *Floræ Insularum Novæ Zelandiæ Precursor*, published piecemeal between 1837 and 1840], and to Sir W. Hooker, pointing out certain differences: (vide, L. J. Botany, vol. iii. p.17) ‘Toumatou!’ (if it means anything, means Anus albus tuus!! (‘Your white bum.’) its native name is expressive, Tumatakuru (Matagouri, a thorny bush: tumatakuru also means to show consternation, to be apprehensive.) (The French have invariably made gross mistakes in attempting to give the Māori name of anything).⁵⁵

Likely Colenso’s own ‘white ass’ was an object of ridicule for the Māori, and the tragic comedy of the colonial archive was never more pronounced than in this passage. The missionary’s anxiety over decorum is formalised in taxonomic terms, conveyed with a complaint for remaining peripheral to the British establishment. As Wells rhetorically asks, is this ‘a version of Colenso baring his colonial buttocks to his one-time metropolitan master?’⁵⁶

The historian of science Jim Endersby, one of Joseph Hooker’s biographers, while acknowledging keen interest in Colenso, only spends a page in his volume on him. However critical, the great-man-biography

52 See Gordon R McQuat, ‘Species, Rules, and Meaning: The Politics of Language and the Ends of Definitions in 19th Century Natural History’, *Studies in History and Philosophy of Science Part A*, vol 27, no 4, 1996, pp 473–519

53 Peter Wells, *The Hungry Heart: Journeys with William Colenso*, Vintage, Auckland, 2011, p 363

54 William Colenso, ‘On Nomenclature’, Three Literary Papers, Daily Telegraph Office, Napier, 1883

55 Joseph Hooker, *Hand Book of the New Zealand Flora*, part I, p 44, cited in Colenso, p 317, transcribed from Kew Plant Determination Lists (PDL) XXVIII: p 53; ATL Micro-Ms-Coll-10 Reel 35: E678.

56 Wells, *The Hungry Heart*, op cit, p 367. This seems a vulgar and juvenile revenge for a missionary priest and politician, but not far from what emerged in *Botanical Drift*’s research on economic botany as an array of fun made of the sexist, racist, classicist figures of history.

becomes dominated by its central subject with whom author and reader often begin to identify. The Hookers furthermore dominate the historiography of botanical science because of the volume of material collected and preserved at Kew. It is more difficult to read behind this archive, into the lost responses and archives outside the centre-of-empire botany. Yet in the living practices and plant cultivation, ethnobotanists and artists continue to study and expand their relationships with plants.

Colenso's letters are written in desperate snatches, formal and respectful as a servant, laying specimens, botanical knowledge and these letters at the feet of the Hookers. On the other hand, Colenso became increasingly embedded in his local *Aotearoa*. He lived with the Māori and worked on a Māori dictionary, but is to this day treated with local contempt by the Māori.⁵⁷ Within the cross-cultural context of the settler colony, Colenso's lobbying for the recognition of Māori terms in established botany allies itself with indigenous interests. We can only speculate – since he doesn't relay to Hooker what he learns from his Māori wife about the mysteries of the verdant islands – but he readily betrays his erstwhile mentor Allan Cunningham's confusion, and claims that learning the Māori language was the only way to understand another order of living things. What ways of collection and cultivation, let alone didactic botany did his Māori family teach him? Through the names he lists in his letters and dictionary there is a sense of a rich ecological knowledge imparted to Colenso. Within Māori meeting houses and territories, there is an elaborate system for growing and for the livelihood of plants.⁵⁸ Women know where and when to gather the flax for their weaving and we can imagine that Colenso felt responsible to his local community to ensure the records he and the Hookers took so seriously in Kew were not full of the mistakes easily made by an outsider.

The mesh of people, plants, places, and the ways they mutually feed off each other had their influence on the collector. Greeting and *haere ra* (Māori departure) to show respect to ancestral plants, as also to people, is imparted in *Aotearoa* along with the names learned. Colenso spoke to plants; he confessed late in life to Hooker how vocally vegetalisated he was:

My choices hours (days) are spent far away in the solitary sub-alpine forests, whither I generally resort 2–3 times in the year, far from the haunts of man. I have said 'solitary' – but I am never solitary there, – all know me & welcome me (don't laugh) – the ancient trees, shrubs, ferns, plants, mosses, Hepaticae, etc. etc., we know each other and I often speak to them, & not unfrequently your name is mentioned aloud & much oftener thought on.⁵⁹

How did Colenso's thinking contrast with the sanitised manicure of plants in Kew Gardens that is so alien to the *Aotearoa* he knew? His archive provides a background to the parameters of exclusion that were maintained in Kew's Economic Botany Collection, and is comparable to North's gallery in its subversion of typical (colonial) modes of respectful address, modes of collection and politics of display. In both of their projects at Kew the antipodean taxonomies shadow the hierarchies in the colonial system. These exclusions were not only carried out towards its 'others' (ie, colonised, or non-human objects) but also

57 Author's conversation with Megan Tamati-Quennell, Te Papa Curator Modern & Contemporary Māori & Indigenous Art, at the Modernists & Mentors, Indigenous and Colonial Artistic Exchanges Conference, Museum of Archaeology and Anthropology, Cambridge, England, 7 November 2013. See also Wells, *The Hungry Heart*, op cit, p 13.

58 Author's interview with Jody Toroa, community elder, Te Whai Ora, Gisborne, New Zealand, 31 October 2016.

59 Letter from Colenso on 22 January 1883. Kew JDH/2/1/4 Letters to Joseph Hooker, Vol IV: p120; ATL Micro-Ms-Coll-10 Reel 27: E440

internally, towards women, artists or the kind of deviant (to the formal order of botany and clergy) that was Colenso. Just as Augustin Pyrame de Candolle's taxonomy was embodied by the viewer who walked through the Kew museum's display, the North Gallery and Colenso's archive of letters, specimens and especially his suggestions for indigenous nomenclature present expansions within their botanical and epistemic conflicts.⁶⁰ One might even go so far as to say that Kew's lack of a response to and exclusion of Colenso's suggested Māori nomenclature represents an 'epistemicide' in Boaventura de Sousa Santos's terms.⁶¹ Though the Māori language retains local names and knowledge of plants to this day, the classifications Colenso was writing about are not straightforward to reconstruct over a century later. For instance, during fieldwork in Colenso's part of the North Island of *Aotearoa*, I found that any knowledge of the significance of the *Tumatakuru*, *Mata-gouri*, or *Persoonia*, the honour of which Colenso was defending so adamantly to Kew, was gone or was withheld, at least as far as I could see.

Conclusion

The 'useful' and the 'curious' have been the two guiding categories of collecting plant specimens and conducting botanical research in centres of laboratory science and biology. The 'curious' camp, which art traditionally inhabits, is a wide catch-all category for aberrations to the European scientific academy, from which the global south and its epistemologies are excluded. Colenso can be reread through Santos's 'southern epistemologies' that have recently been avowed as ongoing casualties of the colonial project, and other contemporary post-colonial frameworks for dealing with what Gayatri Chakravorty Spivak, in 'Can the Subaltern Speak?', called 'epistemic violence'.⁶² Strictly exclusionary, the space of once economic expansion in the nineteenth century in Kew might be thought to maintain a resistance to a perceived botanical conflict, the conflict in botanical theory in which, a Māori classification system, for instance, threatens the established order. However, with the changing use of the botany archive, an increasing number of Māori visiting researchers work with Mark Nesbitt, curator of the Economic Botany Collection at Kew, to find meaning in the collections.⁶³

Looking from the nineteenth century forward, North can now be read instead through twenty-first-century postcolonial, decolonial and feminist critiques of science. North's gallery is, anachronically, an immersive installation and vegetal embrace of the human viewer, which is both in conflict with Kew's exhibition of plants and with the neo-Darwinian botanical theories of conflict between species that have dominated since Malthus. When considered in relation to the lobbying of Kew by the artisan collector William Colenso, the struggles that the Victorian plant hunter Marianne North had as she exhibited her paintings show some historical basis for the conflicts between art and science, in which botany, as a discipline in the service of economic gain, is in conflict with a recognition of plants as sentient and intelligent.

60 Augustin Pyrame de Candolle was a Swiss botanist who established scientific structural criteria for determining natural relations among plant genera.

61 Boaventura de Sousa Santos, *Epistemologies of the South: Justice Against Epistemicide*, Paradigm Publishers, Boulder, Colorado, 2014

62 Gayatri Chakravorty Spivak, 'Can the Subaltern Speak?', in *Marxism and the Interpretation of Culture*, Cary Nelson and Lawrence Grossberg, eds, University of Illinois Press, Urbana, Illinois, 1988, pp 271–313

63 Conversation between Keren Ruki, Mark Nesbitt and the author, 1 May 2017. See also Caroline Cornish and Mark Nesbitt, 'The Life Cycle of a Museum', in *Botanical Drift*, op cit, pp 19–28.