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"The Most Formidable Teeth": Gardening, Collecting, and Violence in Nineteenth Century South-West Western Australia

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Abstract

"I wou'd be particularly oblig'd by you procuring me a Garden Rake, fit for a Lady's use, as I am oblig'd to borrow one of Captn Molloy's with the most formidable teeth, spreading destruction and next to annihilation wherever it is applied" wrote Georgiana Molloy, who emigrated to Augusta in south-west Western Australia with her husband in 1830. Her correspondent was Captain James Mangles, a botanical connoisseur living in London who had connections to British horticulturalists. He requested that Molloy collect Australian seeds and specimens for him, and in return he sent her gifts of silk, seeds, and gardening implements.

Gardening and collecting were thought to be polite activities for ladies, but for Molloy they became essential to her wellbeing. She established a garden because she loved flowers and needed to keep her family from starvation, while collecting for Mangles was initially a respite from her grief following the death of her son, as well as an intellectual boon for an intelligent woman in an isolated location. Yet through these activities Molloy contributed to what scholar Kate Wright describes as a "crime scene" in which

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"almost all places [in Australia] are stained with social and ecological violence and trauma" (2018). This essay attends to these relationships in south-west Western Australia and demonstrates how, using the metaphor of Molloy's 'Garden Rake,' the small scale of her gardening was replicated in the unsustainable transformation of the Australian environment through European agricultural practices, as well as the violence, both ecological and human, which accompanied these practices.

The chapter closes with a discussion of gardening practiced by Aboriginal Australians, described by Bruce Pascoe in *Dark Emu* (2014), and continued today through businesses owned by Aboriginal people that promote Indigenous horticulture. It maintains that against the backdrop of the bushfires of 2019 and 2020, attention to Indigenous land management, knowledge and sovereignty is critical for the survival of Australia's ecosystems and the humans and other-than-humans which these support.

Keywords: Georgiana Molloy, Indigenous ecology, Noongar, nineteenth century, botany, gardening, ecology, violence

Introducing Gardens

Georgiana Molloy was in the late stages of pregnancy when she stepped onto the shores of Augusta in south-west Western Australia on 24 May 1830. Two weeks later, she was "confined when thinking nothing of the kind" and endured a twelve-hour labour in a tent in pouring rain (Molloy, Letter to Frances Birkett, 15 Apr. 1831). Over the following twelve days, her daughter's health declined until, as she wrote to her friend Frances Birkett, her baby was "carried off by violent convulsions" (15 Apr. 1831). Georgiana, distraught, went out and planted bulbs "to dispel the sad blank her death occasioned" (15 Apr. 1831). Gardening was intrinsic to Georgiana's equilibrium and to her family's survival when they arrived at Augusta. She planted her garden with seeds from Britain and the Cape of Good Hope, and over the years it flourished. In 1837 she began collecting indigenous seeds and specimens for Captain James Mangles, a botanical connoisseur in London, a project which transformed her perception of her Australian environment.

Georgiana's letters to her family and Mangles show that gardening and collecting provided a lifeline for a lonely and intelligent woman. What they do not reveal is the devastating impact these activities had upon the traditional custodians of the area, the Wardandi and Bibulmun / Piblemen Noongar people. As Holmes, Martin, and Mirmohamadi note in *Reading the Garden*, "there was an integral relationship between colonisation and gardening: the latter had a practical role to play in providing food for the colonists, but it was also a way in which settlers left their imprint on the land they claimed" (8). Hand-in-hand with this was a failure, or refusal, to recognise that Aboriginal people already managed their environments in sophisticated ways, and that this was bound up with their lore and culture. Present-day writing by Wirlomin Noongar author Kim Scott and his collaborator Hazel Brown, illuminates Noongar people's cultivation of Country and how this is bound up with language.[1]

Georgiana's gardening is a microcosm of the unsustainable transformation of the environment in south-west Western Australia through European agricultural practices. Threats to the area's unique flora have become so severe that, in 2000, it was declared a biodiversity hotspot, a biologically rich area which has lost at least 70% of its original habitat. Given this, and the backdrop of wide-spread bushfires during the Australian summer of 2019 and 2020, an acknowledgement

[1] In Aboriginal English "Country," as Deborah Bird Rose explains in *Nourishing Terrains,* is "Country not used in the sense of "a day in the country"; rather, it is "a living entity with a yesterday, today and tomorrow, with a consciousness, and a will toward life" (7).

of indigenous ways of gardening and cultivating Country is critical for the survival of Australia's ecosystems, and for the humans and other-than-humans which these support.

Growing

Georgiana Kennedy was born on 23 May 1805 in Carlisle, England. When she was three, the family moved to Crosby Lodge, a large house that her father, a deputy lieutenant, had built five miles east of the city. He planted thousands of trees to landscape the surroundings and Georgiana, age three, planted a Balm of Gilead (Barry 38). This tree has a variety of names (*Commiphora opobalsamum, Chr. or Commiphora gileadensis opobalsamum, Balsamodendron opobalsamum and Amyris gileadensis*) and it is not possible to know exactly which species David Kennedy planted. The name "Balm of Gilead," however, is probably derived from the Hebrew word *bosem*, meaning "to be fragrant," and *Gilead*, an area east of the Jordan River in the centre of present Jordan (Ben-Yehoshua, Borowitz, and Hanus 47) shows that it travelled from a far-flung location. From an early age, Georgiana was introduced to the networks that shipped plants around the globe.

Georgiana's later experience with collecting indicates that she was educated in the "polite" accomplishment of botany, which was seen as a worthwhile pursuit for women in the late eighteenth and early nineteenth centuries because it combined leisure and learning. As well as taking women outdoors, it involved "collecting plants, creating herbaria, learning some botanical Latin, reading handbooks about Linnaean systematics, taking lessons in botanical illustration, using microscopes to study plant physiology, and writing introductory botany books" (Shteir 36). While women could not "be members of the Royal Society or the Linnaean Society, could not attend meetings, read papers, or (with very rare exceptions) see their findings published in the journals of those societies" it was acceptable to participate informally in botany (Shteir 37).

A month after her fourteenth birthday, Georgiana's father fell from his horse and died, leaving behind his wife, five children and substantial debts. Georgiana's mother rented out the house with the tree-lined drive and moved the family to Rugby for the sons' education. Georgiana became increasingly unhappy due to her sister Eliza's alcoholism and friction with her mother, so when an opportunity arose to stay with the Dunlops, family friends in Scotland, she packed and left.

At Keppoch House, between Cardross and Helensburgh, in Dumbar-

tonshire, it took Georgiana a while to recover her bruised spirits. The house, built in 1820 by banker Alexander Dunlop, had a walled garden in which she worked. She went for long walks of up to ten miles (sometimes by the shore of the nearby Clyde River), toured the lochs by steamer with her friends, picked flowers for her room, and was gradually restored by the natural world. On 28 April 1829, more than a year into her stay, she wrote in her diary that she prayed to God to "deliver me from going to Rugby." She had received frequent letters from Captain John Molloy, another friend of the Kennedys who had fought in the Napoleonic War. He was interested in marriage but Georgiana, twenty-four years younger, was uncertain. She knew that he was preparing to leave for Swan River, now Perth, to set up a life in the new colony. Despite her emotional turmoil, she accepted his proposal, and in October 1829 she and her husband set sail for Australia.

"Ready to receive seed"

Seven months later, Georgiana stepped onto soil which had nourished the area's traditional custodians, the Wardandi and Bibulmun / Piblemen Noongar language groups, over tens of thousands of years.[2] Noongar people know the bush is like a "gourmet delicatessen" from which they can harvest "many types of *yurenburt* (berries), *karda* (goanna), *bardi* (witchetty grubs), *yongka* (kangaroo), turtles, and birds' eggs" ("Food").[3] They also use flowering plants as signals for the change of seasons and weather patterns. Blossoming paperbarks (of the genus *Melaleuca*; the Noongar term for the tree is *biboolboorn*), for example, "bring the mullet fish" ("Food"). The flowering of plants such as the striking Blue Leschenaultia (common name; scientific spelling *Lechenaultia biloba*) signal the slowing of the rainy season and the gradual warming of the weather.

Noongar people are guided by custom and lore to only eat when plants and animals are abundant and in season. This knowledge of the natural world and its seasons (in the Noongar calendar there are six: Birak, Bunuru, Djeran, Makuru, Djilba and Kambarang) is given to Noongar people "by the *Waugal* [Rainbow Serpent] and passed down by our Elders" ("Food"). Hazel Brown, of the Wirlomin Noongar language group, explains this relationship in the opening

[2] Noongar comprise approximately fourteen dialectical groups which correlate with different geographic areas and with ecological distinctions.

[3] The word "kangaroo" is derived from the Guugu Yimithirr (of north-eastern Queensland) word "gangurru."

of *Kayang and Me* (2005), her collaborative memoir with author Kim Scott: "I remember when they used to go hunting" (7). Her words recall when she and her forbears interacted with the land using practices that had been "happening for thousands of years, down our way. That was always handed down" (30).

When the British invaded south-west Western Australia, they had no concept of the long history of Noongar people's culture and relationship with Country, nor much desire to learn of it, even as they observed the way it shaped the environment. Sylvia Hallam, in *Fire and Hearth*, her account of Indigenous fire management in south-west Western Australia, signals how Captain James Stirling saw this relationship between people and Country at work on his first visit to the area, when he assessed its appropriateness for colonisation. On 13 March 1827, he described a "Tongue of Land which intervenes between the River and the Creek; we found there . . . rich soil of great depth; the ground had been cleared by fire a few weeks before and was ready to receive seed" (qtd. in Hallam, viii). As Hallam notes, this observation "epitomises the relationship between Aboriginal land use and European settlement. The land the English settled was not as God made it. It was as the Aborigines made it" (viii). When Europeans saw the environment in Australia, they thought that the country's extensive parks were naturally formed. Because of their belief in the superiority of European culture and that Australian Aboriginal people were wanderers who "barely touched the land, and were playthings of nature" (Gammage, *The Biggest Estate on Earth* 2), it did not occur to them that these parks were managed through sophisticated regimes of fire.

Although Noongar people burned while the Molloys were at Augusta, Georgiana did not connect the firing regime with the area's biodiversity.[4] She mused on the indigenous flora she encountered:

> How many, many years must these treasures have blossomed in this Country without one eye to appreciate them, it strikes me so forcibly in riding through the surrounding Wilderness, that the "hand of God" is indeed impartial, for the uncultivated parts of the earth are as much loaded with his bounties as are the most frequented parts! (Letter to James Mangles, 14 Mar. 1840).[5]

Georgiana's use of the words "wilderness" and "uncultivated" suggests that the environment through which she walked was unmanaged. Yet, as Bill Gammage

[4] When the Molloys moved to the Vasse, Georgiana asked Charlotte Heppingstone, a young neighbour, to collect for her. Charlotte wrote on 28 Jan. 1840 (in a letter copied into Mangles' *Letter Books*) that "the Natives are burning every day which has made it tiresome to get [the seeds]."

[5] All letters to James Mangles cited in this paper are contained in the *James Mangles Letter Books*, ACC479A, J S Battye Library, Perth.

demonstrates in over four hundred pages of European testimony from journals, diaries and reports, "[t]here was no wilderness. The Law—an ecological philosophy enforced by religious sanction—compelled people to care for their country" (*The Biggest Estate on Earth* 1-2). They used a template of mosaic burning to encourage plant growth and animal management:

> People used the templates to make resources abundant, convenient and predictable. For example, they fired plains before rain to bring on green pick. Grazing marsupials travel to fresh grass; red kangaroos especially chase rain for many miles to find it. Having spaced a template of plains, people fired them in turn to move the marsupials in a predictable sequence. The forest rings both sheltered the animals and made them easier to hunt. (Gammage, "Gardens without Fences")

Georgiana unwittingly referenced this in a letter to Margaret Dunlop as she described her husband's grant on the Vasse (now Busselton) as "a most pleasing country and answering with truth to the description given of its park-like appearance with long waving grass, abounding also in kangaroo" (12 Jan. 1833). Noongar people in coastal areas also burned in south-west Western Australia to create open forest that promoted the growth of *Dioscorea hastifolia* (Hallam, "Plant usage"), a yam known in Noongar as *warrine* which is harvested during the Noongar season of Kambarang (October to November in the Western calendar).

The British colonizers were influenced by ideologies that "stressed the appropriation of lands from local residents and the transformation of imperial environments into sources of economic and moral value" (Beattie, Melillo, and O'Gorman 9). Their arrival at Augusta brutally disrupted Noongar people's "skilled, detailed and provident management of country" (Gammage, *The Biggest Estate* 138).

Vegetable Creations

For the voyage from Britain to Swan River, the Molloys packed stock, seeds and bees to establish a British garden and farm, but the five-month journey to Swan River impacted them badly. John Molloy's mare aborted her foal; shearing sheep and lambs on board "died daily"; the Molloys lost all their pigs between England and the Cape of Good Hope; Georgiana's raspberry, gooseberry and currant slips flowered in the heat, then died from it. "The poor animals", Georgiana wrote, "had scarcely enough to live on" and she too "really was nearly starved and every day from the Cape to Swan River, had only Salt Pork and Rice" (Molloy, Letter to Frances Birkett, 15 Apr. 1831).

When the Molloys arrived at Swan River on 11 March 1830, they found the settlement process in chaos, and much of the land in the area already allocated by the government. With a handful of other settlers, they elected to sail south to establish a new colony at Augusta. There, with the death of their first child, the Molloys' losses continued in the most unbearable way. In later years, Georgiana wrote to Helen Storey (nee Dunlop) about the death of her daughter: "I thought I might have had one little bright object left me to solace all the hardships and privations I endured and have still to go through" (1 Oct. 1833). It was a bitter experience.

As Georgiana was weak following the birth and death of her baby, she directed Staples, one of their servants, to mark out her vegetable garden. The colonists had no experience of the soil, so it took them a while to grow crops, and Georgiana's garden was an important means of supplying the nutrition her family needed. Nearly a year after her garden's creation, she boasted to her friend Frances Birkett

> it is said to be the best garden in SW Australia excepting none, we supply our neighbours with vegetables continuously and have from every sort of British herb & root such as Cabbage carrot onion etc Pear Apple & Peach to the orange tree & vine, Tobacco, Tamarind & different Cape trees (Letter to Frances Birkett, 15 Apr. 1831).

Once the vegetable garden was established, Georgiana had Staples mark out a flower garden, copying the pattern of gardens at Newbold Hall, an 18th century house in Warwickshire. The lady of that house, Selina Skipwith, was neighbour to Georgiana's friends the Caldecotts. Staples, Georgiana wrote approvingly, "laid out the Garden in a most masterly manner" (qtd. in Barry 178-9). On 4 Dec. 1831, some eighteen months after the garden's commencement, she wrote to her mother Elizabeth Kennedy that the climate of Augusta was "most salubrious both for the animals and vegetable creations" and that her "British seeds are in flower and some white lilies I brought from England." By shaping her environment "into a more familiar image, and by planting it with signifiers of what had been left behind" Georgiana, like other colonists, "at the same time established a sense of belonging and sense of place in the new land" (Holmes, Martin, and Mirmohamadi 26). These gardens thus "simultaneously looked back to a remembered place and past, and forward to an imagined place and future" (26). The future that came, however, prompted Georgiana to move far beyond her garden.

Following the loss of her first child, Georgiana had a miscarriage, then bore three daughters and a son. She had little domestic help in what, to her, were primitive, lonely and exhausting conditions. In 1836, when her son was nineteen months old, he fell into a well and drowned. She and her husband were unable to find him for quite a time because the well, although "in full view

of the windows, about a stone's cast off, [was] conceal'd by the Virgillia and Mimosa trees" (Georgiana Molloy to James Mangles, 25 Jan. 1838). Virgilia is a South African tree valued for its ornamental qualities, while the mimosa is another word for *acacia* or "wattle." Just as she lost the tree-lined drive her father David Kennedy planted at Crosby Lodge upon his accidental death, so too were the trees in this new land associated with loss. The death of her child prompted what Georgiana described as a "dangerous illness," most likely a nervous breakdown (Georgiana Molloy to James Mangles, 25 Jan. 1838). This loss could have caused Georgiana to revile her surroundings. Instead, it did the opposite.

Global Exchanges

Just prior to her son's death, Georgiana received a box of English seeds and a letter from Captain James Mangles (1786-1867) requesting that she provide "a return of the Native Seeds of Augusta" (21 Mar. 1837). Mangles came from a shipping background: his grandfather Robert was a ship chandler and oilman, and when he died he bequeathed the business to Mangles's father, John, and uncle, James (Spencer). In 1811 the business, F. and C. F. Mangles, launched the *Surry* (also known as the *Surrey*), a ship which transported convicts to Australia before the ownership changed hands in 1829. Prior to this, Mangles entered the navy in 1800 at age fourteen and fought in the Napoleonic Wars. By the time he left the navy at the end of the war fifteen years later, he was an officer. The next year, he travelled with his friend Captain Charles Leonard Irby, a messmate from his earliest years in the navy. They published a book of their travels titled *Travels in Egypt and Nubia, Syria, and Asia Minor: during the years 1817 and 1818*.

On his return from this journey, while in France, Mangles became friends with another naval captain, James Stirling. He invited Stirling to his uncle's estate in Woodbridge in Suffolk, where Stirling met Mangles's cousin Ellen. Stirling and Ellen were captivated by one another, and married when Ellen came of age in 1823. Three years later Stirling travelled to what is now known as Western Australia to investigate the possibility of a British settlement. The eastern side of the continent had been colonized by the British and there were concerns about French interest on the western coast. On Stirling's return to Britain in 1828, he lobbied the government for support for a settlement, and was subsequently made Lieutenant Governor of the new colony. In 1829, he sailed to Western Australia with his wife and child, to oversee its establishment.

Mangles made another fateful connection upon his return from Egypt and

Syria. In Genoa in July 1819 he met John Claudius Loudon, a Scottish botanist, landscape and garden designer, and a prolific author. They travelled on to Livorno, Pisa, and Florence, looking at gardens, and their friendship lasted until Loudon's death in 1843 (Coats 42). Either Loudon, or James's brother Robert (or possibly both) ignited Mangles's interest in flowers and gardening. His brother owned Whitmore Lodge near Sunning Hill (as it was then called), and Mangles introduced his brother to Loudon. In his *Gardener's Magazine* in 1828, Loudon described the "pleasure-ground" at Whitmore Lodge as approaching the "*beau ideal* of the highest order and keeping; the roses are gathered as they wither, and the leaves as they drop, every morning" (247). A year later, Loudon published a more detailed description of the house and gardens, mentioning its fountain, greenhouse, rose garden, a summer garden with a trellis walk covered by climbers, and a lawn "highly enriched with baskets of flowers of different shapes, grouped so as to exhibit handsome combinations" (Loudon, "Garden Calls in Hertfordshire" 567). At the time of Loudon's visit, these contained pelargoniums, *Hygrophila corymbosa*, roses and mignonette.

James Mangles lived not on an estate but at Cambridge Terrace in London, opposite Regent's Park. His was a three-story townhouse with Ionic columns supporting a porch over the front door. On the first floor a striped awning shaded the windows and pot plants on the balcony. His experiences of living in this townhouse prompted him to publish *The Floral Calendar: Monthly and Daily*. The book was designed for readers without much knowledge of gardening who wanted to cultivate a small garden in London's "poisonous atmosphere" (iv) without the expense of hiring a gardener. Despite his book-length advice, acquired over three years at Cambridge Terrace, Mangles still advocated that London's soot would wither all plants, and that to counter this it was "advisable to contract for a *perpetual weekly supply*, fresh and vigorous from the nursery, brought in pots or transported, or in such health as to be able to contend for a few weeks with the contagious atmosphere of London" (iv-v, original emphasis). By this means, Mangles continued,

> the desponding amateur . . . may create in front of his windows a florid and glowing scene—a tessellated surface of enamelled hues, whose dazzling splendour, while refreshing his sight and cheering his senses, may assist to reconcile him to his doom of being an urban, and not a sub-urban resident (v).

Mangles evidently preferred the expansive lawns of Whitmore Lodge.

The two connections that Mangles made on his return home from Egypt and Syria intertwined in Australia. In 1831, he visited his cousin Ellen and friend James at Swan River. By this stage he was a member of the Royal Society and co-founder of the Royal Geographical Society, and he had either

a newfound or reinforced interest in plants. He was swept up in the interest in botany from new (to the British) environments, which was bound up with the project of colonial botany—"the study, naming, cultivation, and marketing of plants in colonial contexts" which "was born of and supported European voyages, conquests, global trade, and scientific exploration" (Schiebinger and Swan 2).

As knowledge about the collection and dissemination of seeds depended on connections which could facilitate access to different objects (Easterby-Smith 14) Mangles, while in Australia, made the acquaintance of James Drummond, George Fletcher Moore, Captain Richard Goldsmith Meares, Henry Ommaney and Richard Spencer, and requested them to collect seeds for him. Mangles's main interest in plants was their propagation and aesthetics. It was unlikely that he was motivated by commercial reasons, being already wealthy; more likely it was for prestige. His letters of the 1830s and 40s show that he either formed or consolidated connections with John Lindley, the first professor of botany at University College, London; with David Don, from 1836 to 1841; with the Linnaeus Society of London from 1822 to 1841; and with Joseph Paxton, gardener at Chatsworth and designer of the Crystal Palace for the 1851 Great Exhibition. Specimens were "invested with the power to establish new social relations" and "'[t]ributes' and 'briberies' were paid in the forms of seeds and specimens; rewards were given by coining names; revenues were counted in terms of 'new' specimens" (Muller-Wille 47-48), so naming would have oiled these relationships. Mangles, in turn, was anointed with a plant name. While David Don named *Anigozanthos manglesii* in honour of either James or his brother, *Rhodanthe manglesii* was, according to John Lindley's *Botanical Register*, "introduced from the Swan River Colony in New Holland by Captain Mangles, R.N. after whom we have named it. It first flowered in the beautiful collection of Robert Mangles, Esq. of Sunning Hill, where our drawing was obtained in 1833, and whence it has been liberally distributed" (1703).

When, back in England, James Mangles began receiving specimens from his Australian collectors, he did not have the space to propagate them. Instead, he sent them to his brother Robert. For example, a "singularly beautiful species of *Anigozanthos manglesii* . . . from seeds brought from Swan River by the enterprising governor of that colony" were "presented to Mr. Mangles" (Sweet 265). The plant, the Noongar name for which is *kurulbrang*, is also now the emblem of Western Australia. On 11 July 1837, the Horticultural Society of London (now the Royal Horticultural Society) awarded Donald McKay, Robert Mangles' gardener, a Large Silver Medal for a specimen he had grown (Loudon, "The Royal Horticultural" 382).

In 1837, Mangles added Georgiana to his network via Ellen Stirling, his cousin, with whom Georgiana was friends. Prior to her son's death, Georgiana made one excursion into the bush to collect flowers, but protested to Mangles that "as all my former pursuits have necessarily been thrown aside (by the peremptory demands of my personal attention to my children and domestic drudgery) I fear it will be long ere I can make an adequate return in Australian productions" (Georgiana Molloy to James Mangles, 21 Mar. 1837). Following her son's death, however, she ventured into the bush to take her mind from her grief, writing that, "Since my dear Boy's death I have up to the present time daily employed myself in your service" (Georgiana Molloy to James Mangles, 21 Mar. 1837).

Drawing on her early education in collecting, Georgiana ventured into the bush to collect seeds and specimens and fell in love with her surroundings. She wrote to Mangles that "being in the bush is to me one of the most delightful states of existence free from every household care, my husband & Children and all I possess on Earth about me" (31 Jan. 1840). Part of the attraction of collecting, as well as having time to herself in an otherwise exhausting existence, was the opportunity that Mangles gave her to write about her floral encounters. In a letter of 14 Mar. 1840, she described:

> [A] Tree of great beauty . . . the flowers gave the character not only to their possessor but to the surrounding locality, the flowers are of the finest white, and fall in long tresses from the stem, some of its pendulous blossoms, are from three, to five, fingers in length, and these wave in the breeze like Snow wreaths; they are of such a downy white feathery appearance, and emit a most delicious perfume, resembling the bitter almond, and like all human or rather mortal delicacies, how quick these lovely flowers fall from the stalk on being collected.

This passage shows the sensory delight Georgiana took in flowers, particularly their colour and smell (e.g. see *fig. 1*). Not satisfied with merely listing these characteristics, she describes them poetically as "Snow wreaths," "downy," and "delicious" evoking a sense of softness and enticement.

Fig. 1. 'Woody pear, Xylomelum occidentale'. CC BY-NC-SA 2.0. Image by

Clare Snow, Flickr. www.flickr.com/photos/claresnow/31864271090/in/album-72157676551892586/

Georgiana also uses the flowers symbolically, commenting on their mortality once they have been cut. It is an eerie summation of Georgiana's collecting project, for although she was motivated by beauty and aesthetics, her actions had fatal consequences.

"A Massive Crime Scene"

Georgiana sent several collections to Mangles, who distributed them to his associates, along with her letters. Paxton praised the latter as "written by one who is devoted to the promotion of Botanical interest in this Country and zealously able to fulfil the task of collecting Seeds" (Joseph Paxton to James Mangles, 14 June 1839). On account of her social standing, it was not polite for Mangles to pay her for the specimens she sent him. Instead, he sent her gifts of English seeds, books for herself, her husband and her children, gardening magazines and fabric. The language she used to describe her reception of these items indicates her gratitude and delight in his gifts: "I only wish you could witness the unbounded pleasure that is evinced in the opening of a Box all the way from England[,] I assure you old and young are equally *anxious* and *pleased*" (Georgiana Molloy to James Mangles, 1840, original emphasis). She referred to some books he had sent her as "bounty" and the box in which they arrived as "a Box of treasures" (31 Jan. 1840). The gifts he gave her were often luxurious. "You have made me *Rich* in silk," she wrote, and intended to return this item "as I have not made any use of it in your behalf, but I am convinced you would be delighted to bestow an article of so much service and scarcity upon me in this alienated Land" (undated supplement, prior to Sept. 1838). Bounty, richness, treasure, boon: these are all words which connote wealth, for the Mangles brothers were wealthy, and their collecting and cultivation of indigenous Australian plants was a means for them to display this wealth.

In a letter of September 1838, Georgiana wrote to Mangles that she "wou'd be particularly oblig'd by you procuring me a Garden Rake, fit for a Lady's use, as I am oblig'd to borrow one of Captn Molloy's with the most formidable teeth, spreading destruction and next to annihilation wherever it is applied." Although Georgiana's tone is light-hearted, this phrase can be read as a metaphor for the repercussions of the Molloys' activities: their rakes tore into a way of being with and living on the earth that Noongar people had cultivated for

tens of thousands of years.

John Molloy and his fellow colonists, for example, cleared land "immediately near the beach" of "palm grass, plants and timber" (Georgiana Molloy to Elizabeth Kennedy, n.d.). Gammage explains that among Australian Aboriginals, each family "cared for its own ground, and knew not merely which species fire or no fire might effect, but which individual plant and animal, and their totem and Dreaming links. They knew each yard intimately, and knew well the ground of neighbours and clansmen" (3). Given this, the felling of trees undoubtedly impacted the Wardandi and Bibulmun / Piblemen Noongar people. Wirlomin Noongar author, Kim Scott, reflects on the consequences of felling trees to clear paddocks in his own family: "It must have been a bitter experience to fell the trees of your country" (121). Hazel Brown, in her collaborative memoir with Scott, explains this relationship in the opening of *Kayang and Me* when she mentions her brother Stanley, who was forced to bulldoze his home. Stanley says to Hazel, "I'm driving this effing machine over the ground I know we walked on. And girl, you should see it now. If you go back there . . . These trees where we used to sit under, where Mummy used to be pegging the skins out . . . we went right over that" (222). She relates how Stanley was traumatised by this, commenting that "when they take away trees and plants, and they interfered with wildlife, all these things are lost" (222). Plant studies scholar John Ryan explores how poet and playwright Jack Davis (1917-2000), who was born in Perth and identified with Noongar people, evokes the relationship between people and trees in his poem "Forest Giant." Davis illuminates the living spirit of the centuries-old tree through a description of roots "in cadence / with the heart beat of the soil" (lines 3-4, *Black Life* 63), indicating that the tree and soil that sustains it are alive like humans, their blood beating with a pulse. As Ryan notes, Davis "addresses the old tree directly as a sentient fellow-being" (31), and the tree and poet grieve the loss of their ilk, just as Stanley grieves the loss of trees, through bulldozers.

As well as impacting on Noongar people and culture, tree clearing also affected the soil. Soil scientists have demonstrated that the top five centimetres of soil in the south-west Western Australia's Banksia woodlands contains ninety percent of all seed and micro-organisms that sustain the above-ground vascular (sap-bearing) plant communities. The next five centimetres contains a further five percent. Removal of this thin layer of topsoil—through tree clearing, for example—compromises the ecological community's ability to persist and recover from other disturbances for very long periods of time, and makes them vulnerable to colonization from invasive species such as weeds (Hopper, "OCBIL theory" 70).

Not only were Aboriginal people's relationships with the non-human world impacted, but so too were relationships with their fellow humans, Aboriginal and settler Australians. John Molloy, together with his neighbours, led a massacre on the Wardandi Noongar people in 1843 after a colonist at Wonnerup was speared by Gayware, whose land the colonist had taken (White 2017). It may be supposed that Georgiana, because she engaged in the more domestic and "polite" activities of gardening and collecting, was not consciously complicit in colonial occupation and exploitation. Yet in sending specimens to Mangles, who then forwarded them to professors and specialists in botany and cultivation, she facilitated the process of linguistic imperialism, "a politics of naming that accompanied and promoted European global expansion and colonisation" (Schiebinger 195).

In his 1735 *Systema Naturae*, Carl Linnaeus elaborated on the system now known as "binomial nomenclature," or the means by which living things are named according to their genus, and then the species within that genus. This was a sustained attempt to bring taxonomic order to the burgeoning names of new plants and animals that voyaging naturalists of the sixteenth and seventeenth centuries brought back to Europe (Schiebinger 199). Two years later, Linnaeus published *Critica botanica* (1737), a two-hundred-page work that set out the rules for standardising botanical nomenclature in which he emphasised "the urgency of developing a strict and standardized 'science of names,' by which he meant a set of rules regulating how names can be created and maintained" (Schiebinger 199). He forbade, however, European languages other than Latin and Greek, indigenous names (except those from Greek mythology), names invoking the uses of plants, and names ending in *oide* (Schiebinger 200). This meant that, when names were applied to specimens in Australia using the Linnaean system, they disregarded their existing social and cultural contexts.

This affected the connection between Noongar and their Country, as language and Country are deeply entwined. Kim Scott, explains:

> there is something really deep and conceptual in these Noongar terms. As there is in *boodjar* for earth; and *boodjari* also means "pregnant". Ngangk is "sun" as well as 'mother'. *Bily* (or *bilya* in some dialects) is river and it's also navel or umbilical chord. So there's a lot more complexity in these concepts of connection and interrelationship than there is in the world-wide use of a term like 'mother earth.' There's an interrelatedness . . . there's the human form and other life forms latent in the landscape (qtd. in Brewster 244).

In accordance with the precepts set out by the Linnaean system the British, by erasing the names given to places and plants by Aboriginal people and replacing them with new names, attempted to overwrite and sunder the relationships

between Country, language and people. As cultural anthropologist Veronica Strang notes, naming "humanized" the landscape for Europeans and imprinted their identity onto the land. This brought it, as Strang writes, "into their perceived sphere of control" (217). It is little wonder, given massacres of humans and non-humans, linguistic imperialism, and ecological erosion, that "the Australian landscape is a massive crime scene. Almost all places are stained with social and ecological violence and trauma" (Wright 76). And these crimes are continuing.

Gardening in the Australian Anthropocene

Eminent Australian botanist and one-time director of Kew Gardens, Professor Stephen Hopper, notes that the relationship between Australian settlers and their environment has been "fraught, for many people through to the present day. Attempts to shoehorn understanding into mainstream Northern Hemisphere thinking and world view remains the starting point for concepts of environmental management, only reluctantly giving way to a truly antipodean perspective when all else seems to fail" (Hopper, "From Botany Bay" 357-58). And failing Australia is.

After the hottest and driest year on record, the 2019-2020 fire season started in Queensland and New South Wales in June (in these states it usually begins in August). The blazes that subsequently stormed along the east coast were unprecedented. Approximately 97,000 kilometers of the southern Australian forest, woodlands, heathlands, grasslands and farmlands burned. These fires were at least fifty times more extensive than California's worst wildfires on record and five times the size of the 2019 fires in the Amazon. They were also exceptionally severe, burning Australian ecosystems that are not fire-adapted, including the mainland's World Heritage-listed Gondwanan rainforest (Ward et al.). The fires killed thirty-three humans, displaced or killed nearly three billion animals, and destroyed seven billion trees ("Royal Commission"; Reid 2020).

In south-west Western Australia, fires started by two separate lightning strikes in the heritage-listed Stirling Range National Park eventually consumed 37,000 hectares of the eastern half of the national park (constituting one third of the park). The last, unburnt patches of a threatened ecological community, Eastern Stirling Range Montane Heath and Thicket Threatened Ecological Community, were destroyed. The population of *Banksia montana*, which consisted of only eight mature plants, was razed. Although there were some seedlings of this plant, their survival is threatened by drought, dieback, and

grazing (Traill 2020). The failure of European land management methods is clear, particularly in a warming world.

For decades, scientists have striven to raise awareness about the stressors on Australia's environments. In 2000, the South West Australian Floristic Region (SWAFR) was recognised as a biodiversity hotspot. It is one of thirty-six worldwide and one of two in Australia (the other is the forests of eastern Australia), and works to highlight the need to care for this precious and precarious environment. Only 2.3% of the earth's land surface contains wild biodiversity in these hotspots, yet it houses 150,000 vascular (or sap-bearing) plants, which constitute 38% of the global total (Hopper et al. 168). Designation of the SWAFR as a hotspot is critical because, in addition to land clearing, the flora is threatened by the pathogen *Phytopthera cinnamomi* (a soil-borne water mould commonly known as "dieback"), fragmented populations, grazing by introduced feral herbivores, and climate change (Monks et al. 60). While scientists are doing important work to protect ecosystems in this unique area, it is imperative that citizens do as much as they can. Returning to an aspect of Georgiana's gardening and collecting may suggest a way forward.

As Georgiana did not have any experience with collecting indigenous plants and, on account of her gender and lack of qualifications in botany, she did not have the authority to name them, she paid careful attention to the plants' size, colour and morphology, and how and where they grew. She attached a number to each specimen, and requested Mangles to "oblige me by sending me the names of the different flowers according to their numbers; I have kept the numbers of each, and the duplicates of most of the Specimens that I might have the satisfaction of hearing some name attached to them" (25 Jan. 1838). Her lack of access to the Linnaean taxonomical system meant that Georgiana formed a relationship with the indigenous plants that was, as we have seen, imaginative and poetic. It was also receptive, albeit in a limited way, to Noongar names for the plants.

When Georgiana wrote to Mangles about *Xylomelum occidentale*, the soft, snowy flower she had found, she suggested, "The native name is *Danja*, and I rather think it will turn out to be a Hakea." Georgiana's attempt at classification was not correct, as the plant to which she refers is *Xylomelum occidentale* or, in keeping with the European habit of giving common names to plants according to their similarity to European specimens (as in *fig. 1*) the Western woody pear (Abbott 1983). However, this instance does show that Georgiana listened to Noongar people, even as she facilitated the overwriting of that name through the Linnaean taxonomical system. She was also so entranced by the indigenous plants she encountered that she tried to grow them in her garden. She wrote to

Mangles on 25 Jan. 1838:

> I have frequently endeavoured to introduce the native Plants among the exotics, they do not succeed from want of their Native shelter, the Purple creeper alone has consented to be domesticated, and has associated its beautiful Purple flowers with a very elegant Pink climbing Plant from Mauritius . . . These two Creepers cover one side of our Verandah and the Purple has so peremptorily usurped the external framework of my windows as to darken the room, but encrease[s] the beauty of the prospect.

The purple plant is most likely *Hardenbergia*, or a native wisteria. Here, Georgiana's love for and appreciation of Australian plants led her to propagate them in her garden. As one of her biographers, William Lines, notes, "Whereas her neighbours had seen wilderness in need of taming, she had uncovered a national beauty beyond compare" (267). For a white British woman, this was a radical perspective.

Settler Australians can emulate this receptiveness to Noongar words, or other Aboriginal languages that are particular to Country, as well as the way in which Aboriginal people care for their environment. Koori writer, Bruce Pascoe, notes in *Dark Emu* that Aboriginal people have been cultivating the soil in sustainable ways for thousands of years. He provides numerous examples of yam cultivation by drawing on early written records:

> When [Major John] Mitchell arrived at the Victorian Grampians in 1836, he saw "a vast extent of open downs . . . quite yellow with Murnong [yam]", and "natives spread over the field, digging for roots". Captain John Hunter, captain on the First Fleet, reported in 1788 that people around Sydney were dependent on their yam gardens. (20)

Pascoe refers to ethnobotanist Beth Gott, who suggests that the effect of digging for roots would aerate the soil, "loosen it for seed germination and root penetration, and to incorporate litter into the soil. Plants would be propagated by scattering and breaking up of the underground parts" (Gott 65). Gott adds that "this regime of firing, gathering and digging might well be regarded as a form of 'natural cultivation'" (65). Head, Atchison, and Fullagar, also suggest that yam patches and yam digging "display attributes of both garden and country. They are discrete and distinctive physical places, distributed patchily within the broader landscape on the basis of geology" (182).

Gardening with indigenous plants, and learning about ways that Aboriginal people have lived with and cultivated plants, is critical for supporting ecosystems, plant biodiversity and Aboriginal culture. As Hopper notes, "We face a steep learning curve to chart a way forward that embraces sustainable living with plant diversity. Targeted plant diversity science and cross-cultural learning with Aboriginal people, in botanic gardens and elsewhere, offer some solutions

to global problems and an important message of hope" ("From Botany Bay" 363). One practical way of doing this is to support Aboriginal businesses that propagate plants and bush foods. For example, Bruce Pascoe has established a farm to grow *mandadyan nalluk*, Yuin for "dancing grass." Some of the people harvesting the grains are descended from those who would have done the last harvest before the practice was disrupted by colonization. Pascoe says, "That's what this farm is all about—trying to make sure that Aboriginal people are part of the resurgence in these grains, rather than being on the periphery and being dispossessed again" (Allam and Moore).

IndigiGrow in Sydney's eastern suburbs "sustains people, land and culture through the propagation of native plants, including bush food and the critically endangered Eastern Suburbs Banksia Scrub" (Cooley "What We're All About"). Like Pascoe's farm, this initiative is not just about growing plants, but also supporting Aboriginal culture. Manager Peter Cooley uses the motif of the endemic Styphelia plant (*Styphelia tubiflora*) to explain his company's work:

> It's a very important story as it connects our people to the bush tucker plant five-corners. Our old people always talk about scrounging and foraging through the local scrub looking for a feed of five-corners. To do our part in keeping this story alive, five-corners is embedded in our logo. The flower in the logo is of the Styphelia plant and in these pictures you can see the five-corners around the base of the fruit. Also the circles in the logo are the five pillars IndigiGrow is based around Bushfoods, Employment, Skills & Training, Retail & Education. No IndigiGrow is not just a nursery, it's much much more. When you buy from us, you are supporting our culture and the continuation of our stories and connection to country as well as the important five pillars. ("IndigiGrow Native Bushfoods")

Support for these initiatives is particularly important because the bush foods industry is dominated by non-Aboriginal businesses, continuing the deleterious cycle of using Aboriginal culture for profit (Collard 2019). It also recognises that Aboriginal people in Australia have retained environmental and cultural knowledge despite the acquisitive impact of invasion. Poet Charmaine Papertalk Green, of the Wajarri, Badimaya and Southern Yamaji people of mid-west Western Australia, writes in her verse 'Walgajunmanha All Time':

> We write about our connection to country / and that challenges theirs
> We write about our lived realities / and that shows them we survived
> walgajunmanha
> walgajunmanha
> walgajunmanha
> We write about sky world knowledge / and show them the first astronomers
> We write about earth world knowledge / and show them a sustainable culture
> (14, lines 11-17)

The repetition of the Wajarri word "walgajunmanha," meaning "writing," illustrates the way in which writing makes Aboriginal culture visible. The '/' symbol for a line break in the middle of each line underscores that, although connection to Country has been disrupted, it has not been broken – the knowledge and stories continue. These words show how, as Kim Scott writes, if one is "linguistically displaced and dispossessed, even in one's own country . . . language comes back and makes an instrument for it and for the spirit of place" (Brewster 230).

Recognition and Respect

In planting trees such as the Balm of Gilead, Georgiana's father clearly prized unusual botanical specimens from distant lands. Perhaps, as Georgiana walked through the bush collecting seeds and specimens for Mangles, she recalled patting down the soil around the tree as she planted it with her father, before beaming up at him. Enculturated by the belief that British culture was superior, she could have reviled all that seemed harsh and hostile about the Australian natural world. Instead, she was receptive to Noongar names for plants and brought indigenous species into her garden. Following her example, settler Australians can, by learning about Aboriginal people's languages, cultures and cultivation, and by supporting Aboriginal businesses and initiatives that propagate indigenous plants, be exposed to effective ways of responding to Australia's environmental crisis. Significantly, the recent report by the National Commission into National Natural Disaster Arrangements has taken a step in this direction by highlighting the "growing recognition of the value of Indigenous land and fire management practice as a way to mitigate the effect of bushfires" (389), although it also notes that these practices are "just one aspect of the broad and integrated approach of Indigenous land management" (389). Aboriginal people are Australia's original gardeners, with expertise cultivated over thousands of years and maintained during two-and-a-half centuries of colonization. It should not take the loss of billions of lives to recognise and respect this knowledge.

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“最銳利的釘耙”：十九世紀西南西澳的園藝，收集及暴力

摘要

「我會特別感謝您幫我購得一把淑女專用的花園鐵耙，正如我感激我先生借我一把最銳利的釘耙，進行摧毀及滅絕」，在1830年與先生莫樂利上尉一起移民至西南西澳小鎮奧古斯大的喬治亞娜・莫樂利如此寫道。她與居住倫敦的植物鑑賞家詹姆士・孟葛爾士互相通信。詹氏與英國園藝界關係密切。他要求莫樂利女士幫他收集澳洲植物種子標本，而以饋贈絲綢，種子，花園工具等禮物回報。

園藝及收集被視爲淑女的風雅活動，但對於莫氏的幸福更形重要。她建立花園，由於熱愛花卉，並有時令家人免於飢餓。尤其在兒子過逝之後的傷痛，藉由園藝可暫時遺忘。並且居住於淒涼荒野，研究花草植物，對於一位才女，可以滿足知識的渴求。然而莫氏的記載卻提供了學者凱特・賴特所謂的「犯罪現場」的記錄。描繪了「澳洲大陸血腥的社會及生態的暴力及創傷」（2018）。本文主要探討西方移民對西南西澳地區農業的創傷，藉由莫氏「花園鐵耙」的隱喻擴大至歐式農業的方式及暴力對澳洲生態人文的傷害。文末將提及2014年布魯斯・帕斯科出版的「黑暗鴝霧」討論的原住民農業方式，在2019年至2020年澳洲森林大火的災難下，本文主張必須關注原住民對土地的利用及生態體系的維護對澳洲人文生態的永續生存是至關重要的。

關鍵字：喬治亞娜・莫樂利，原住民生態，十九世紀，植物，園藝，生態，暴力，澳大利亞原住民族