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**Palm-like fingers gripping a coarse line of air:  
Poetry as a method of enquiry into Southwest Australian flora**

**Abstract**

Visual forms of botanic representation—taxonomic illustration, wildflower photography, landscape painting and picturesque prose—depict plants as idealised images fixed in space and time. Scientific language further objectifies the plant, extruding it from its broader ecological and cultural contexts, while visually dissecting it into two-dimensional planes. Yet, flora is *poiētic*, that is, perpetually unfolding and shifting between life cycle states according to seasonal rhythms. Multi-dimensional representation of flora, therefore, moves between specific synchronic visual moments and broad diachronic multi-sensory patterns. Scholarship on arts-informed enquiry characterises poetry as a qualitative research methodology and a *poiētic* process. A long-standing tradition of poetic enquiry into flora predates contemporary theoretical models of arts-based research, and is exemplified by the work of American naturalist H.D. Thoreau. In examining the potential of poetic enquiry in the multi-layered representation of flora, this paper employs a structure that intersperses theoretical discussion with poetic interludes about Southwest Australian plants.

Keywords: cultural botany, flora, *poiēsis*, poetic enquiry, Southwest Australia

**Cultural botany: A context**

How does a poet study flora? What special kinds of botanic knowledge stem from the lyrical arts? How does arts-based enquiry differ from scientific investigation of plants, and where do they share necessary commonalities? These questions brew palpable tensions, considering that the rigorous study of plants is usually wholly subsumed under the banner of botanic science. A botanist comprehends plants through scientific mechanisms. Taxonomic keys, instruments of magnification and, more recently, DNA technology ensure that botanic knowledge is

communicable to a global scientific audience. Science universalises flora by deconstructing plants into coded bricks of information that transcend cultural or linguistic differences: Latinate names for genus and species, biochemical constituents and genetic imprints. In contrast, a poet chases fleeting visions of insight into the natural world that are inherently unrepeatable and often unstructured. The poet comprehends the world through emotion, intuition and the overlaying of events and impressions that inhabit a moment. Whereas science is the domain of predictable reason, poetry is the house of unpredictable passion and the subjective states of people and culture. Such dichotomies face a writer of verse who enters the demesne of botany and, conversely, the botanist who turns to poetic praise through verse.

Nevertheless, the divide might not be as great as we are led to believe. The linkages between art and science, as well as between poetic language and scientific nomenclature, are evident in the earliest writings of botanist Carl Linnaeus who, in the eighteenth century, designed the classificatory system of organisms now standard throughout the world. Linnaeus, in *Deliciae naturae* (1773), reveals the linguistic structure of his taxonomic sorting and naming of life. He describes the cross-over between the language of science and the language of culture: ‘The botanical terms correspond to letters, the names of the plants to words and the systems to the grammar’ (quoted in Sharr 1978, vii). French philosopher, Michel Foucault, corroborates the linguistic origins of Linnaeus’ taxonomy, asserting that scientific nomenclature ‘resides in its entirety in the area of language, since it is essentially a concerted use of names and since its ultimate aim is to give things their true denomination’ (1966, 176). For Linnaeus, however, the language of scientific taxonomy is more than a technical assemblage of letters, words and grammar. His language incorporates poetic idiom. Nomenclature is learned technically as a linguistic system in order to then appreciate linguistic musicality and poetics. Linnaeus states that ‘to learn a language requires an acquaintance (to some extent at least) with its letters, words, and grammar. Then only, and not until then, can one enjoy all the beautiful compositions in that language’ (quoted in Sharr 1978, vii).

Science deculturates plants, removing them from specific niches on one side of the globe in order to reconfigure them into predictable abstractions on another side far removed from the original habitat. The tools of science transport the abstract data of plant names and chemical

constituents—as well as the dead and living organic material of specimens and seeds—across space and time beyond contexts of ecology and culture. Yet, scientific names are imbued with poetic and cultural meanings engrained in its language. The Golden Kangaroo Paw, *Anigozanthos pulcherrimus*, for example, is a plant that only occurs in an uncultivated state in the Southwest corner of Western Australia (hereafter, Southwest). In the nineteenth century, Swan River colony botanist and plant collector, James Drummond, first sent a Golden Kangaroo Paw specimen to botanist James Hooker in England, describing the plant to his colleague as the loveliest flower of Western Australia. Consequently, Hooker chose the species name *pulcherrimus*, which means ‘most beautiful’ in Latin (Hopper 2009). Despite the culture-free, reductionist pretense of botanical science, its language is hand-in-glove with that of history, poetics and aesthetics. Therefore, the leap between taxonomic and poetic enquiry is shorter than one might first assume.

Recognising the importance of the discourses of the sciences and the humanities to knowledge of flora, cultural botany is an interdisciplinary model attempting to bridge the perceived divide, offering the potential for botany to enter poetry and for poetry to continue to infuse the way in which humans perceive plants. In its most general form, this model encourages dialogue between the arts and sciences in order to expand knowledge and recognise existing linkages. The term ‘cultural botany’ then refers to knowledge bases and structures of enquiry into plants and human cultural engagement with flora that are informed or inspired by the literary and visual arts, cultural studies and the humanities generally. The interweaving of poetic language and taxonomic nomenclature, science and art, aesthetics and mechanics offers a mutually illuminating and potentially reinforcing dialogue, rather than purely critical discourse over disciplinary differences of methodology and values—the hard sciences versus the soft arts. In recognition of this possibility, the use of poetic enquiry as an arts-based methodology takes cultural botany as its broader context. In this sense, poetry evokes botanical science, employing its technical terms and acknowledging its limitations, whilst the science of plants pursues an increasingly poetic view of the world. Cultural botany doubly sets out to enliven the many knowledge systems of plants—poetic, folk, Aboriginal, intuitive—that have been subordinated to a mechanical view of plant life inherent to taxonomic science.

In positing the need for cultural botany as a framework for discussing non-scientific forms of botanical knowledge, I draw from early and contemporary Southwest Australian botanical texts, Heidegger's interpretation of the Greek concept *poiēsis*, the botanical writings of Henry David Thoreau, and a diverse foundation of arts-based research theory. I also present a series of five poetic interludes from field studies of high botanical diversity in the Southwest. An interlude is an intervening section in a larger performance piece. These poetic-botanic interludes attempt to provide examples of what poetic enquiry into Southwest flora means to me. By intervening between key theoretical sections, the interludes endeavour to concretise the application and embodiment of *poiētic* theory, whilst communicating tangible sensory instances of engagement with flora. Each poem relates threshold moments of transition between states of appearance in the landscape and the deep interweaving of visual aesthetics into a fuller bodily sensorium consisting of personal memory, botanical nomenclature, cultural history and metaphorical associations.

### **Interlude I**

'Seven names for a plant'<sup>1</sup> is a commentary on the multiple naming histories for one fascinating iconic Southwest plant, the West Australian Christmas Tree, flowering in Perth in late November and December. Plant names encode cultural information, including the history of colonisation of the land by settlers who brought with them the perspectives of Linnaean science and European aesthetic tastes. Names used by the Nyoongah or Bibbulmun, the Aboriginal people of the Southwest, signify different conceptualisations and interdependencies with the plant world. The italicised Nyoongah and Latinate words in the poem highlight how scientific and Aboriginal names both constitute departures from the common English language of plant names. The eighth line of the poem, 'branches pose ghosts, like buds', refers to the significance of *mudja* in the Nyoongah worldview as a resting place for deceased souls on their way west across the ocean to Kurannup and the afterlife. Of the awe held by the Nyoongah towards the Christmas Tree, early colonial ethnographer, Daisy Bates (quoted in Hopper 2010, 337) observed:

No living Bibbulmun ever sheltered or rested beneath the shade of the tree of souls; no flower or bud or leaf of the tree was ever touched by a child or adult; no game that took shelter beneath it was ever disturbed. But the Bibbulmun did not fear the tree; they loved it, but held it sacred for its spiritual memories. The souls of all their forebears had rested on the spirit tree on their way to Kurannup.



## SEVEN NAMES FOR A PLANT

*such is the abundance of the orange-coloured blossoms, that the colonists at King George's Sound compare it to a tree on fire*

John Lindley (1839) *A sketch of the vegetation of the Swan River Colony*

*mudja,*

beacon of the banksia scrub;  
soft summer burning stirs  
movement to the coast;

ghost bush,

waystation of the dead,  
glissading spirits to the sea:  
branches pose ghosts, like buds;

christmas tree,

burning with the sun's burning  
antithesis of spruce, searing  
the cold forests of Doug Fir;

tree of the dead,

haustoria crawling into rock  
striking an interpose between  
the luminous sky, the dank underworld;

*nuytsia floribunda,*

abundantly flowering namesake  
of the Dutchman who seized  
coastline with cartography;

cabbage tree,

plumage in whorls of yellow  
trunk laden with water  
and the stench of necrosis;

a tree on fire,

obscured in the bright wash of  
*birok*, burning a burnless  
land, igniting orchid passion,

like a soirée

of leaf and light, root and loam  
irretrievable from the name  
is the love that goes on.

## **Southwest flora and visual representation: A problem**

The Southwest corner of Western Australia is a biodiversity hotspot of international significance (Southwest Australia 2007), extending from Shark Bay, 820 kilometres north of Perth, to Israelite Bay, 725 kilometres to the south of Perth. Bounded by the Indian Ocean to the west, the Southwest Floristic Province is one of the most botanically diverse regions in the world with a unique array of native<sup>2</sup> plants (Corrick and Fuhrer 2002). There are over eight thousand native species of plants in the Southwest, or more than fourteen times the number of species found in the entire United Kingdom (M. Bennett, personal communication September 15, 2009). Moreover, thirty-five percent of the plants in the Southwest are endemic—found to occur under natural, uncultivated conditions only within the region. Additionally, the Province holds eighty percent of the endemic plants of the state of Western Australia (Paczkowska and Chapman 2000). In 1696 Dutch explorer, Willem Vlamingh, visited the Swan River and made the first recorded European collections of Southwest plants (Marchant et al. 1987). Other colonial botanists and plant collectors, including Charles Fraser, Georgiana Molloy, John Lindley and James Drummond, contributed to early nineteenth-century understandings of the flora. Beyond the intersection of European exploration and Southwest flora, there is the cultural richness of fifty-thousand years of Nyoongah usage of native plants as food, medicine, tools, ornamentation and totems (Paczkowska and Chapman 2000).

Early colonial representations tended to depict the flora of the Southwest with vocabularies inherited from the visual arts and European landscape aesthetics. In 1840, British horticulturalist, John Lindley, published the first significant illustrated textual account of the plants of the newly settled Swan River Colony, later to become Perth and the state of Western Australia. *A sketch of the vegetation of Swan River colony* sought to identify amongst the flora certain species beautiful enough to become centerpieces in manicured landscapes or ‘horticultural objects’ in European gardens. The hand-colored plates exemplify species-driven Linnaean botanical illustration which in French philosopher of science, Bruno Latour’s terms, is a ‘circulating reference’, a representation frozen in space and time yet globally transportable, enabling the consistent and duplicable worldwide classification of plant life (Latour 1999, 24). In Figure 1 below, plants are two-dimensionally dissected. Their reproductive organs appear as footnotes at the base of the plate, the backdrop is blank white. Taking as its point of reference

the universalising system of taxonomic classification of which it is part, the images extrude the species from the habitat, seasonality and ecological associations of the plant. An illustration such as this is a node in a network of knowledge based in the standardisation of organisms.

Contemporary representations of Southwest flora emphasise the linguistic denomination of plants and floral structures. *Flora of the Perth region* presents ‘the first systematic attempt to document the entire flora of the Perth region’ (1987, 1). Black and white line drawings typify the two-dimensional visual dissection of flora. Scientific representation reduces the plant to a series of unrelated reproductive structures: flowering stems, flower, flower with sepals and petals removed, stamens, ovary and style, and fruits (Marchant et al. 1987, 62). An image of the whole plant appears as imbrication on the left margin and decoratively frames the out-of-proportion reproductive structures. The ovaries and stamens are exaggerated to aid the identification of the species. The accompanying textual entry reads like a visual calligram, enumerating qualities of colour (white hairs, fruit yellow to green) and form (narrowly triangular in outline) (Marchant et al. 1987, 61).



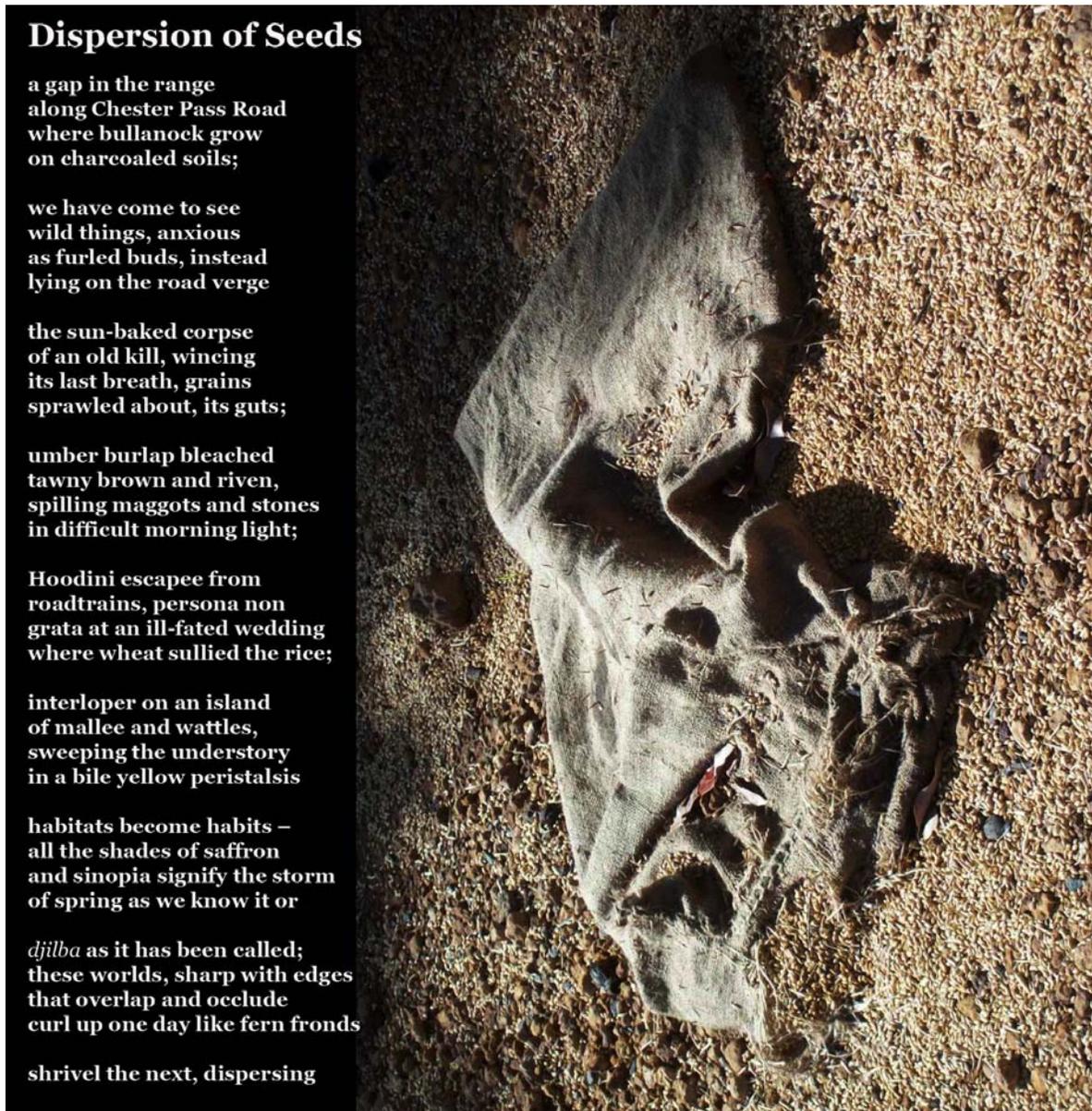
**Figure 1:** Plate 7 from *A Sketch of the vegetation of Swan River Colony* (Lindley 1839-40) (Retrieved from Wikimedia Commons)

The text encapsulates the plant; the entry and its sketches are short-hand for the plant itself, the living organism in the field. The flowering time and geographic distribution are listed at the bottom of the page, and this two-dimensional system of sequentially itemising the visual features of a plant is duplicated in all other entries. The colligating of plants into a textual tableau is indicated by the term 'flora', which can refer to both the written information (as a Flora) and the plants themselves (as flora). Text and plant are interchangeable; the plants are transmuted into text, literally through the cellulose of their bodies becoming paper. The linguistic structure of the entry is a calligram in which the pattern of words, representing an idealised image of the plant, stands in for all plants of the same species that one might encounter in the field. In practice, however, even plants of identical taxonomic classifications (for example, all *Nuytsia floribunda*) vary greatly on an individual basis.

Such linguistic mechanics of representation are taken for granted. That is the way science is done, we are told. Nevertheless, the mode of representation has implications for the relationship between plants and humans. Firstly, through its visual emphasis, taxonomic representation implies the denigration of other sensuous qualities such as smell, taste, texture and sound, which are viewed as too inconsistent to form a basis for a classificatory system. Secondly, botanical science engenders a mechanical conception of the plant world, including the belief that the teleology of plants has solely to do with the perpetuation of species. Thirdly, representational language, exemplified by the 'horticultural object', isolates plants from their living context and imposes superficial aesthetic evaluations of beauty. Fixed categories of beauty necessitate that there be 'ugly plants' and 'scrubby bush', which might then be bulldozed over for lacking pleasing visual qualities.<sup>3</sup> The land and its vegetation are seen as sterile, worthless, barren, unattractive, monotonous or, worse yet, amenable to being destroyed then recreated through remediation.<sup>4</sup> A visual linguistics of representation, aligned to taxonomic botany, relegates to the margins of knowledge other ways of understanding plants. Yet one might taste or attend to smelling a plant that at first appears inconsequential or repulsively prickly; one might visit a plant over the seasons to witness its changing qualities. With the multiplicity of the senses engaged over time, artists and poets offer other ways of knowing.

## Interlude II

'Dispersion of seeds'<sup>5</sup> is concerned with the intersections between native and naturalised plants—between island pockets of indigenous flora and the surrounding agricultural matrix which engulfs it—through the metaphor of the displaced bag of wheat seed. The Southwest Australian landscape is a mosaic of changing lands. Native bushland vegetation has been planted in wheat, canola and pasture, but recent efforts to re-establish original native flora prove the ever-transitioning quality of the landscape.



## ***Poiēsis* as bringing-forth: A key concept**

*enframing, in a way characteristic of destining, blocks poiēsis* Heidegger 1977, 311

Plants live in the tide of transformation between states of stasis and activity, flowering and seeding, decay and fruition, beauty and ugliness. Multi-sensory and contextualised representation of plants invokes *poiēsis* over stasis. Rather than constructing a ‘horticultural object’ frozen in space and time, *poiētic* representation discloses the mosaic of events and a context of engagement with the plant. The Greek term *poiēsis* is the root of the modern word ‘poetry’. *Poiēsis* in turn derives from *poiein*, ‘to make’, and entails the inspired creating of forms out of resources, or *technē* (Stewart 2002). Poet and literary critic, Susan Stewart (2002), defines *poiēsis* as a sequence of emergence that engages the human senses. For her, *poiēsis* is a site of struggle against nature in which *technē* is regarded as a nothingness (a void) out of which something (a form) is made. Indeed, *poiēsis* ‘wrests form from nature’ (Stewart 2002, 12). In such terms, representation becomes a form of resource extraction that hammers images out of the cacophony—or symphony—of a sophisticated pattern of ecological events.

Heidegger (1977) offers a multi-layered interpretation of *poiēsis* in which the materiality of the world, or *technē*, is not merely a resource for human industrial exploitation but a living form bearing agency, self-directedness and mutability. In such terms, a jarrah forest, for example, has significance beyond its value as a timber resource; the forest is a biotic community with internal ecological complexities occurring independently of human deductions of value. For Heidegger, *poiēsis* is bringing-forth and the condition of being in-the-making at the moment of transition between fluid phases of being. Something is never as it appears in an instance of visual perception; change inheres. Most significantly, *poiēsis* includes both the bringing-forth of forms out of *technē* as in the making of crafts, but also the bursting open of forms in nature, such as the blossoming of a flower, or *physis*. Here Heidegger argues against the separation of *poiēsis* and *physis* in ancient Greek thought. *Poiēsis*, as bringing-forth, is both the emergence of something from out of the material of itself—the flowering of a plant (*physis*)—as well as the bringing-forth of something acted on externally, such as the crafting of dyes or perfumes from flowers. Stewart’s sense of *poiēsis* sets up a divide between the arts and crafts, and nature. Heidegger asserts that ‘through bringing-forth the growing things of nature as well as whatever is completed through the crafts and the arts come at any given time to their appearance’ (1977, 293). *Poiēsis*

occurs both in nature and in craft when something concealed is brought forth both from itself (the flower blooming) and from another material form (wood transformed into a crafted object).

The importance of Heidegger's interpretation of *poiēsis* is that it questions the static view of plants as material resources. The natural world engages bringing-forth as much as crafted objects. In Heidegger's terms, the form wrested from nature is an essence. He provokingly offers a botanical metaphor to discern between the collective essence of something (a species) and the experience of a singular something (an organism in its habitat). He observes: 'When we are seeking the essence of "tree", we have to become aware that what pervades every tree, as tree, is not itself a tree that can be encountered among all the other trees' (1977, 287). The essence of a tree, or its 'treeness', which Linnaean classification and modern botany set out to identify, is not the essence of individual trees per se but more of a collective assumption, or an essentialisation. Hence, for Heidegger: 'Under this inclusive genus—the "universal"—fall all real and possible trees' (1977, 311). As with the depictions of botanical illustration, idealised images endeavor to represent the essence of a plant; they distill the plant world through the alignment of visual representation with species-level identification and the temporal, spatial, sensory and ecological dislocations required of an essentialisation. Actual sensory contact with an individual plant, a single identity within a collective species, will not necessarily reveal the idealised image or essence. For example, the tree could be out of flower or the distribution range shrunken by human settlement practices or global climate change.

As I have argued, idealised botanic images are central to the taxonomic project to systematise knowledge of plants. *Technē* describes the materiality of the plant world as a resource coupled to the technical practices of modern botany. However, Heidegger here makes a crucial move connecting *technē* and *poiēsis* that characterises *poiēsis* as a keystone or bridging concept between poetics and technics: '*Technē* belongs to bringing-forth, to *poiēsis*; it is something poetic' (Heidegger 1977, 294). To the ancients, the bringing-forth associated with the formation of the crafts was also the bursting-forth of the blossom. Materiality, technique, technology and science were not rigidly conceptualised as separate from the fine arts, including poetry. 'Once there was a time when the bringing-forth of the tree into the beautiful was called *technē*. The *poiēsis* of the fine arts was also called *technē*' (Heidegger 1977, 315). It should be held in mind that Heidegger attends to the difficulty of characterising modern technology as

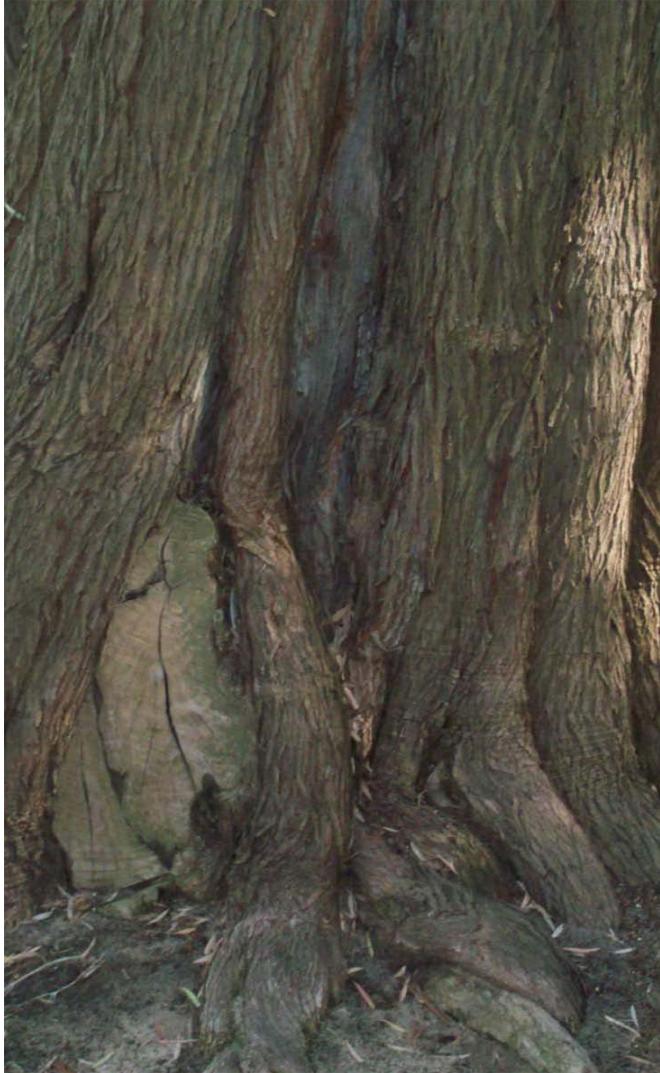
*poiēsis*, as a bringing forth. His interpretations are critical when we consider modern botany as instead a ‘challenging-forth’. Contemporary advents in DNA technology and gene manipulation wrest forms from nature. The recent amalgamation of the *Dryandra* and *Banksia* geni in Southwest Australia, due to DNA similarities rather than field characteristics, is pressing evidence that botanical science has become a specialised technology of plants (Collins 2009). Representation as such is a product of the technologised plant or the plant in service to an increasingly mechanistic global society of specialists.

The dual activity of *poiēsis*—as a quality of fine arts as well as the technical sciences—offers implications for botanical representation. Plants, in Heidegger’s terms, have creative powers. Plants perform actions and are acted upon by their environments. Representation, therefore, becomes less a process of wresting form from nature and more of a breathing into a form that is already palpable. The bringing-forth of the most visually captivating phase of a plant, as depicted by Figure 1, is governed by the life cycle of the plant, which adheres in the emergence of the bloom. The flower is neither a fixed, isolated occurrence, nor the end result of a linear chain of causality beginning with pollination, moving through budding and ending in blossoming. Heidegger expands the four-fold Greek idea of causality, in which presencing occurs through a sequential concatenation of events. The ‘playing in unison’ of causal events instead brings ‘what is not yet present...into presencing’ (1977, 293). Set within the parameters of a region, the synchronic instance of flowering, fixed into botanic imagery, embeds within it a complex of events: seeding, fruiting, winter rain, summer drought, the age of the plant and human-induced changes to the landscape. The enframing of floral images, however, privileges certain phases in the life cycle of the plant, especially the flower, proliferating an aestheticised and static nature, which in Heidegger’s view blocks the dynamic of *poiēsis*.

### **Interlude III**

Kino is the reddish gum produced by a marri tree. In the Nyoongah language, marri means ‘flesh or meat’ (Moore 1978, 51) but the term could also refer to blood, to which the kino exudate is likened in my poem ‘If you want blood, you’ve got it’. In the poem, the kino on the bark of a marri tree triggers a flood of memories, in which I recount instances of seeing blood, both as plant blood—the bloodroot flower of Western Australia and the bloodroot of the

American New England region—and as human blood—splattered on a Seattle street or issuing forth from the nose of a friend affected by altitude sickness.



### IF YOU WANT BLOOD, YOU'VE GOT IT

*gum trees emit, when wounded, a stream of reddish fluid  
of a consistence not unlike thick blood*

George Fletcher Moore (1884) *Diary of ten years*

once you've seen blood  
you look for it everywhere,  
the glowing dark enamel  
seeping from chambers  
where organs pulse—  
blood impregnating blood,  
wave after wave.

in the afternoon columnar light  
a marri performs a blood-letting,  
and I taste the kingdom of flies—  
flecks of sugary kino disintegrate  
on my tongue, an acrid sting,  
agreeable as an antiseptic—  
a lineage inside my blood.

bloodroot spicing bland roots  
or the white-flowering bloodroot  
under pompous colonial oaks,  
the profusion of my own blood  
after a summer camp accident,  
how it spilled out like an open tap  
in my eyes, I asked would it ever stop.

the strange spangles of blood  
along a Seattle street after the drunken  
night ranting of the neighbors,  
my friend's nose bursting from the altitude  
of the Vermont Green Mountains,  
my blood again dripping like paint as  
the plastic surgeon excises a birthmark.

all the births I will never see  
including my own, still  
blood is everywhere, though the body  
dams it back in the remotest gorges,  
it gushes forth at the most improbable  
moments of aloofness—  
blood upon blood upon blood.

### Poetic enquiry: A methodology

Insofar as it brings something into existence, every act of art is *poiētic*, and poetry is at the heart of all forms of creativity. During her discourse on love and beauty in the *Symposium*, Diotima describes poetry as the foundation of creativity, or 'calling something into existence that was not there before; so that every kind of artistic creation is poetry, and every artist is a poet' (Plato

1964, 39). *Poiēsis*, ‘calling something into existence’, typifies all forms of artistry, such that all artists are intrinsically poets, even though music-makers are known as musicians and sculpture-makers are known as sculptors (Plato 1964, 39). Plato furthermore generalises *poiēsis*, saying that ‘every occasion for whatever passes beyond the nonpresent and goes forward into presencing is *poiēsis*, bringing-forth’ (quoted in Heidegger 1977, 294). *Poiēsis* dwells not only in the fine arts but also wherever presencing, or bringing-forth, occurs. In this sense, *poiēsis* is the bringing-forth of creative practices through songs, paintings, sculpture or scripts as well as the bringing-forth of the natural sciences, particularly the botanical sciences, in which the plant being studied unfolds through phases of flowering, seeding, fruiting, growth and decay. Nature is inherently creative. *Poiēsis* is hence a pivot between the commonly separated scientific and poetic forms of enquiry.

Through the seasons and over time, poetic enquiry into plants bridges the disciplinary divide between botanical science and the arts through *poiētic* practice, opening the representation of flora to the body sensorium. Poetry evokes the changing nature of plants and landscapes, including particularities of place, space, time, relationships between human and floral bodies, and the sensory qualities of plants including—but not limited to—the visually-impressive flower. Contrary to the synchronic image of botanical illustration or wildflower photography which enframes the flower, the botanical world is always in process, florescencing and dehiscencing, intermeshing with everything else, never actually at rest. Poetry has the potential to collapse barriers between humans and plants, restore the spectrum of the senses to the experience of landscape and represent with greater depth and nuance the flora of the Southwest of Western Australia. For Stewart (2002, 14), poetry calls the concealed into presence by expressing ‘the passage from not-knowing to knowing through which we represent the world, including the perspectives of others, to ourselves and those around us’. Representation, as such, moves between the isolated blossom of botanical imagery to the successional flowering of *poiēsis* over the year, intertwined with broader ecological meanings and human sensory experience. Poetry breathes botanical movements into verse rather than wresting form from the green void.

Poetic enquiry is a form of arts-based, qualitative research, which has an increasingly rigorous theoretical articulation. Cole and Knowles (2007, 59) describe arts-based research as a ‘mode and form of qualitative research in the social sciences that is influenced by, but not based in, the

arts broadly conceived'. A goal of arts-based research is 'to enhance understanding of the human condition through alternative (to conventional) processes and representational forms of inquiry' (Cole and Knowles 2007, 59). Although arts-based enquiry is steeped in the social sciences and overtly concerned with the human condition, its application can extend to the understanding of the natural world as well as the human relationship to flora. Lorri Neilson (2007) describes 'lyric enquiry' as a process of engagement and a written outcome characterised by song-like or poetic language. For poet, Carl Leggo (2007, 168), poetry is a discursive practice and 'a way of knowing, being, and becoming in the world'. Hence, the practice of poetry is *poiētic* as it reveals a process of knowledge and unfolding experience rather than purely fixed instances of aesthetic imagery. Poetry expresses 'ongoing engagement' with the world beyond the delimitations between the creative arts and social sciences imposed by the academy (Leggo 2007, 168). As suggested by Leggo as well as Cole and Knowles, as an alternative to the purely scientific paradigm, the use of arts-based enquiry in the social sciences still has relevance to the botanical sciences and the exploration of forms of enquiry into flora.

Poetic enquiry into flora and landscape creates representational forms based in what Porteous (1996) terms 'geoautobiography', or the inseparable interrelation between one's personal history and the story of the land. Where the body of the landscape and the body of the human are fused geoautobiographically and poetically, an embodied aesthetics of representation emerges in the work of Suzanne Thomas. In *Of earth and flesh and bones and breath* (2004), Thomas employs poetic enquiry to develop a perceptual approach to islands in coastal Canada. Poetry of corporeal sensation alternates with images of decay in forging an aesthetics of palpable, multi-sensory placement in the intertidal zone between land and sea where the study takes place. In 'Prima materia', Thomas (2004, 170) writes of the body of a dead seal: 'Ripe flesh, rotting skin/ lie transmutable/ carrion, offal, microbe, maggot/ dissolving body returns to earth'. Through the sensory language of sight, smell and touch and the shifting images of words such as 'dissolving', the poem positions the human body as an (im)mediating sensorium between landscape and subject. Representation takes on a corporeal quality, transcending the distancing mechanism of sight, rupturing the perceived chasm between subject-object, human-landscape and feeling-intellect. The poetic verse deepens and extends the images of bodily decay throughout the work, invoking *poiēsis*.

## Interlude IV

A calligram is writing in which the visual design of the words relates directly to the content or meaning of the text. A taxonomic description of a plant is calligrammatic. The information in botanical keys, or binomial nomenclature, entails the structuring of botanical knowledge flows towards the end result of the Latinate epithet. My poem ‘Calligram Nerved Hakea’<sup>6</sup> attempts to disengage the scientific plant calligram and invoke the bodily poetic plant calligram. It focuses on a highly localised plant, the Nerved Hakea (*Hakea neurophylla*) which only occurs in Lesueur National Park and the Eneabba area between Geraldton and Perth.

### CALLIGRAM NERVED HAKEA

i.  
in a meadow, amongst the gum-nuts  
underfoot like marbles on a slick floor,  
a campsite—cold water shower upslope,  
the loo improvised from a trip to the tip;  
faucet drain all plugged-up—a moat  
of scummy soap water, a minor calamity  
of saponin—rubbish bins tucked under wispy  
eucalypts, the outlines of tents absorbed  
by the tall grass; looking for the level ground,  
*following the drinking gourd* to the promise  
of deep slumber in the late winter pith of air,  
condensing as soon as the sun drops below,  
dips below the heathland hill to the West.

ii.  
awake now, a series of muffled explosions,  
in that chiaroscuro between tender dreaming  
and cynical reality, a flurry of sparks, as logs  
thrown newly into a fire—a pyrotechnics—  
New Year’s Eve style, startled like Dowager  
Gong Shen by her cheeky son in the 11<sup>th</sup> C  
or like me by the tyrannical cannon my father  
fired off on a July 4<sup>th</sup> New Jersey eve to blast  
all that he could not blast the rest of the year:  
lying supine, vulnerable as a suckled babe,  
ensconced under the hissing, flaring arc,  
half-thinking the hubbub is of a nocturnal  
marsupial snuffing around the tent, rooting  
for ants or worms, sticking its snout rudely

into my centre belly chasm:  
dew enters a ragged power cord  
patched with blacktape.





iii.

*Hakea neurophylla* Meisner

veins branching nervously  
within smooth leaf margin  
sun emboldening designs  
to red, what airy fire lines!

*djanda*

blowsy stamens riding high  
seahorses in a wild sea  
down-turned pout of a nut  
dots of pink in olive green

*nerved hakea*

spindly tassles  
undeterred by wind;  
a giant amongst drosera  
spinnings its sticky earth-bound flowers

iv.

rain pummelling wool, that musk  
of wet sheep, long strides over the bare hills;  
sometimes it's just what you're drawn to:  
lightning shards in the paddocks  
or bodies enervated together  
by a sinewous jolt.

## Poetics of plants: A precedent

Through both prose and verse, poetic enquiry as a research methodology, characterised within cultural botany, has multiple incarnations in Australia (Main 1967; Banfield 1968). Outside Australia in the nineteenth century, English poet, John Clare, wrote extensively about the flora of the pastoral English countryside and relied upon non-Linnaean plant taxonomies (Clare 1821). However, nineteenth-century American philosopher and prose writer, Henry David Thoreau, produced an especially salient philosophical, empirical and poetic model for representing plants through vivid, sensory-rich experience, over the seasons and within the parameters of place: the environs of Concord, Massachusetts. Thoreau used meticulous observation of broad, diachronic multi-sensory patterns of Concord's flora. His posthumous works, *Faith in a seed* (1993) and *Wild fruits* (2000), together present an apotheosis of the poet-botanist literary genre. Bradley Dean (2000, xi) comments that 'the observations he recorded in his journal ranged from the most purely objective and scientific to the aesthetic and highly subjective'. Thoreau's aesthetic-poetic interpretations of plants borrow from the taxonomic knowledge to produce accessible works that augmented the botanical science of his day. Simultaneously, his works function as polemics against the increasing systematisation of plant knowledge, and ultimately, Thoreau's aesthetic of flora upends the detached, visual bias of Linnaean classification.

Thoreau is the paragon of a cultural botanist: one who invokes the literary and cultural arts in the expansion and critique of the science of plants.<sup>7</sup> His botanical oeuvres suggest that the line between poetics and science need not be antagonistic. Thoreau's later works, which crystallise his achievements as both an amateur botanist and a writer of poetic prose, reconcile the 'two culture split between literature and science' (Richardson quoted in Nabhan 1993, xii). Thoreau's writings further show the early germination of 'literary ecology' in North America (Nabhan 1993, xii). Despite his proficiency as a field scientist, he had reservations about the discipline of science, likening it to 'the grub, which, though it has nestled in the very germ of the fruit, and so perhaps blighted or consumed it, has never truly tasted it' (Thoreau 2000, 242). Hence, cultural botany provides the opening of a space for exchange between the arts and science, suggesting that a significant problem in scientifically-rooted appreciation of flora is the tendency to subordinate that which can be tasted, heard, touched or smelled to that which can be seen.

Perhaps in response to his criticism of science, Thoreau's field approach to flora is ostensibly multi-sensory and bodily-present, with ruminations on the olfactory, audible, gustatory, palpable and visual qualities of the flora. Thoreau (1993, 26) describes non-visual sense experience as a 'bodily eye'. The olfactory faculty perceives plants for their trademark smells; white pines possess a 'strong spirituous scent, almost rummy, or like molasses hogshead, which would probably be agreeable to some' (1993, 39). He records audible particularities of plants; hickory forests echo 'even in August...the sound of green pignuts falling from time to time' (1993, 143). The sense of touch reveals information about the cranberry plant—'I was obliged with my finger carefully to trace the slender pedicel through the moss to the vine, where I would pluck the whole together, like jewels worn on or set in these sphagnous breasts of the swamp' (2000, 167). Additionally, Thoreau attends to the intermixture of the sensory qualities of plants, for example, with the thistle, whose inner silky seed capsules are guarded by a prickly external involucre: 'It is a hedge of imbricated, thin, and narrow leaflets of a light brown color, and beautiful glossy like silk' (1993, 87). In sum, Thoreau's poetic prose blends scientific acumen with nuanced embodied observations.

Furthermore, as works of cultural botany, Thoreau's writings are *poiētic* representations of plant life over the seasons. *Faith in a seed* is concerned almost wholly with the dispersal mechanisms of seeds, and along with *Wild fruits*, forms part of his larger unfinished project, the 'Kalendar', in which he aimed to record all the events of natural history that took place in his hometown during a full year (Dean 2000). As such, Thoreau's representation of plants expresses his inherently seasonal approach to studying them. His Flora results from the colligation of diverse sense impressions and discursive deductions over time, rather than visual instances of apprehension based solely on form and color. Instead of isolating events in the broader cycle of plants, he is thus concerned with assembling a whole life pattern of flora. Through this fusion of careful empirical observation and tonal sensory experience over time, *Faith in a seed* provides evidence to contradict the prevailing nineteenth-century belief in the spontaneous generation of plants. To the contrary, he demonstrates that the distribution of seeds occurs through a variety of subtle mechanisms by birds, quadrupeds, wind and the actual bursting forth of the seed from its pod.

## Interlude V

The autogeobiographical poem, ‘Three peaks triptych’,<sup>8</sup> stresses the disjunctions and disorientations that happen in a new landscape and the tendency to associate unfamiliar plants with the flora of one’s home country. Through staccato free verse, the poem shows the grappling for sense of place through the *poiēsis* of sensory embrace with the unfamiliar. The arrangement of aesthetic experience into the harmonious symmetry of the triptych is foiled and dispensed with through the pangs and proddings of the body.

### THREE PEAKS TRIPTYCH

mount trio in the morning,  
sore calves and a calling  
of several unknown birds;  
to the north, tyres reeling,  
supersonic spinning of wheels,  
I shift from rock to rock

mountains irupt out  
of the grazing land like boils  
on the back of the sheep plain;  
Hume Peak holds the  
western-most corner:  
the plant takes the word

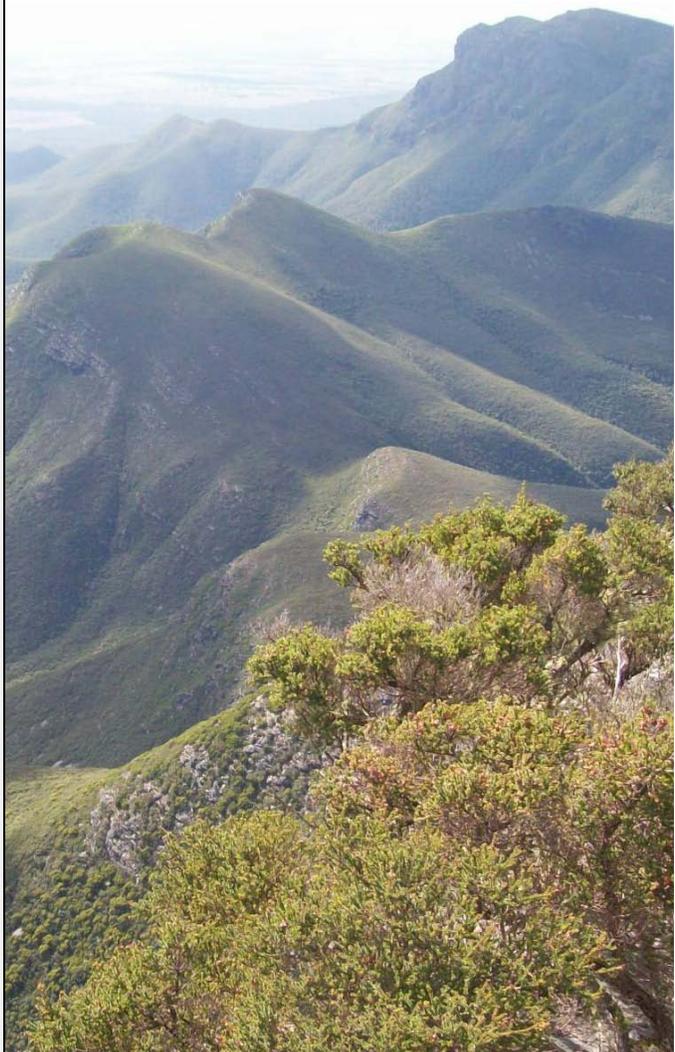
cells diffract  
asexual new words,  
a nouveau lingua rises like a belly  
and adipose ripples  
under a shallow sea

like plants:  
clover-like (triangulate)  
sweetfern-like (tooth-edged)  
hemp-like, ginkgo-like leaves  
sprout from the stem  
unusual ephedra-like (whorls of spikes);

huddled in, below gustline  
we talk our trade, animalia-plantae;  
we have history, we make ranges,  
we brood and surveil, we are emblems  
(there are guidebooks to us)  
leading to the cairns up here.

we duck the wind  
and the aster-like bursts of energy

before the names, ancient associations  
the present is now defined—  
an anonymous convocation  
of palm-like fingers gripping  
a coarse line of air.



## **Plants-*poiēsis*-poetics: A way forward**

Poetic enquiry into plants is a promising form of qualitative research leading to embodied, placed, subjective, metaphoric and other special kinds of plant knowledge derived from the lyrical arts. Although arts-based enquiry differs markedly from scientific botany, dialogue between the two knowledge forms offers a more rounded and multivalent understanding of plants. *Poiēsis* is the core concept of cultural botany, bridging taxonomic and poetic knowings. Scientific representation tends to universalise and taxonomise plants towards, in Latour's terms, a 'circulating reference' that is globally transmittable. *Poiēsis*, however, is a nexus encompassing various representational dualities—synchronicity and diachronicity, visuality and sense heterogeneity—showing the inherently mutable quality of flora. Within the context of cultural botany, *poiēsis* is temporal and unresolved, inviting ongoing sensory experience as contribution towards a plant knowledge in-the-making and in which all sense faculties are given partial representation. A way of being that goes beyond the disjunctions between poetic and scientific approaches, *poiēsis* opens a way forward into fresh understandings of the complex relationships between human cultures and indigenous flora.

## **Acknowledgements**

My ongoing gratitude to my supervisor, Dr. Rod Giblett, and associate supervisor, Dr. Lekkie Hopkins, at Edith Cowan University for their insightful comments on the early drafts of this paper. Also, many thanks to the two anonymous referees and the careful constructive criticism of the editors of *Provoking texts*. I would also like to extend my appreciation to my interviewees, Kevin Collins and Stephen Hopper, who generously spoke to me during the Southwest spring wildflower season of 2009.

## Notes

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<sup>1</sup> Published in *SWAMP*, Issue 5, October 2009. Available at [www.swampwriting.com/?page\\_id=105](http://www.swampwriting.com/?page_id=105)

<sup>2</sup> A problematic term, 'native' here is defined as pre-colonial or existing at the time of European contact with Aboriginal people.

<sup>3</sup> For example, aesthetic values factor into the current proposal to build a road through Anstey-Keane Damplands, a floristically diverse 'Bush Forever' site near Armadale in the southern metropolitan area of Perth, Western Australia. For further reference, see R. Giblett and D. James (2009). *Anstey-Keane: Botanical jewel*. Kensington, W.A.: Department of Environment and Conservation. Available at [www.sercul.org.au/docs/2009241-Anstey-Keane%20bro1.pdf](http://www.sercul.org.au/docs/2009241-Anstey-Keane%20bro1.pdf)

<sup>4</sup> The success of mine site remediation is often assessed according to visual resemblance to similar habitats. For further reference, see S.M. Bellairs (1999). Development of success criteria for reestablishment of native flora habitats on coal mine rehabilitation areas in Australia. In *Remediation and management of degraded lands*, eds. M. Wong, J. Wong, and A. Baker, 13-24. Boca Raton, FL: Lewis Publishers.

<sup>5</sup> Published in *Landscapes*, 3(2), Summer 2009. Available at [www.landscapeandlanguagecentre.au.com/hydrobotanica/Hydrobotanica\\_Ryan\\_Dispersion%20of%20Seed.pdf](http://www.landscapeandlanguagecentre.au.com/hydrobotanica/Hydrobotanica_Ryan_Dispersion%20of%20Seed.pdf)

<sup>6</sup> Published in *SWAMP*, Issue 6, April 2010. Available at [www.swampwriting.com/?page\\_id=117](http://www.swampwriting.com/?page_id=117)

<sup>7</sup> Thoreau especially draws from stories and interviews with local people as part of his approach to investigating flora. For example, he links the distribution of chestnuts and the foraging habits of the striped squirrel through conversations with town residents, an approach we now would call environmental ethnography (Thoreau 1993, 129).

<sup>8</sup> Published in *Creatrix*, Issue 5, June 2009. Available at [www.wapoets.net.au/pages/creatrixissue5poetry.html#john](http://www.wapoets.net.au/pages/creatrixissue5poetry.html#john)

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