

TOWARDS A SYMPOIETIC ART PRACTICE  
WITH PLANTS

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Towards a Sympoietic Art Practice with  
Plants

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## ABSTRACT

At a time of crisis in human relationships with the natural world, this practice-as-research project comprises selected artworks and a written thesis investigating co-creativity with plants. The openly exploratory and speculative research scrutinises changes to plant-artist relationality as I develop a sympoietic art practice with plants, conceived as ethically accountable, co-creative 'making-with' plants, inspired by Haraway's 'naturecultures' (2016). Sympoietic practice engages affirmatively with posthuman ethics of non-exploitative, egalitarian and ecologically situated practice, re-conceptualises plant-artist relations and makes way for accepting plants as agentially-active, co-expressive partners (Bennett, 2010, Marder, 2013). Manifestations of sympoietic art practice explored through co-creative processes of growing, making and walking with-plants contribute to the variegated nature of practice-as-research by reaching out in multiple directions to connect feminist and posthumanist theories (Barad, 2007, Braidotti, 2013, Alaimo, 2016) with artistic research (Schwab, 2018), poetic encounters, science and everyday life. In response to sympoietic concerns, temporary assemblages of interconnected events add participation, performativity and ecological awareness to the poetry and production of the artist-book.

Sympoietic art processes have revealed multiple hindrances to my relationship with plants despite artistic closeness. The novel concept of 'plant de-coherence' arose directly from these insights. Plant de-coherence enriches the existing theory of 'plant blindness' (Wandersee and Schussler, 2001, 1999) by releasing fresh metaphors from quantum theory to explore and nuance an understanding of lively relational exchanges during the practical and conceptual transition between plants and humans in co-creative practice. The thesis exposes de-coherence effects in art processes and audience interfaces in the tangle of cultural filters through which plants are encountered: anthropomorphism, aesthetics, representation, symbolism, and commodification of plants. By working creatively with an understanding of de-coherence effects sympoietic art practitioners are empowered to transform its negative impacts and mediate co-creative worlding with plants which recognise co-dependence in a rapidly changing environment.

**KEYWORDS:** Sympoiesis, Co-creativity, De-coherence, Naturecultures, Non-exploitation of plants, Plant-artist relationality.

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childhood rich with plants, white rustle of ripe oats, bite of a soft wheat grain, rippling barley, dusty harvest, creaking cart of straw bales, climbing on the stack, scratched legs from stubble and straw, scent of a flowering bean field, getting lost in tall mustard, hiding in the artichoke patch, lime brush, yew hedge, dangerously sucking juice from yew berries, look deadly nightshade, a thorn apple don't touch, climbing apple trees a pink sea of blossom, making fairy homes with petals, acorn-cups of juice, fairy gardens with seed paths, looking-glass ponds with floating forget-me-nots, garden, earthy smell of carrots, potatoes freshly dug, hoarding conkers, peeling beech nuts, sweet chestnuts to chew, leaving a pile for squirrels to find, cracking hazelnuts with a stone, making fishbones from horse-chestnut leaves, dolls in dresses from big red poppies, robin's pincushion there's a maggot inside, flowers in a bucket, walks in country lanes, itching powder from rose hips, naming wild flowers, smell of damp leaves, meadow sweet, king cups, lords and ladies, straddling ditches, primroses and violets, feeling stalks for picking deep down into cool moss, crushing berries to make dye, blackberrying, it's a bee orchid very rare, blousy sweet peas, warm strawberries from the plant, armfuls of daffodils, slimy stalks, holly and a sprig for the pudding, mistletoe in the doorway, sugared violets, seaweed ribbons to wave their rubbery feel, pop the bladders, sun-bleached sea holly, special smells of mint and lavender, making lavender bags to give, eating windfall apples mind the wasps, catch leaves as they fall, first ripe tomato, first bulbs to poke through to the soil, unearthing new potatoes don't damage them with the fork, raw peas from the pod, he came from the city had never seen them growing on a plant, shaking earwigs from dahlias, the flower show, rows of fruit and vegetables, the perfect rose, jam-making, watching bubbling fruit, saucer of jam scum to taste, cowslips and wild roses, give them to Mrs Collins to put on her window sill, the blackthorn winter, Christmas tree in the cool so it doesn't die of shock, top and tail gooseberries shred currants from the stalks with a fork, lavatory plants (actually Lavatera), snow drops and joyful yellow aconites in the snow, Old Harry made cider from scrumped apples, they were all falling over, pooh sticks under the bridge, bark rubbings, pushing a sugar lump into the orange to suck the juice, watching leaves from the bedroom window when I had measles, autumn can you believe the colours? apple peel three times round your head to see your lover, tell your fortune with tea leaves, tell the time with a dandelion clock and wet the bed, tell if you like butter with a buttercup under your chin, daisy chains, flower garlands hanging from the dead tree, chickweed and groundsel for the canary, dandelion sow-thistle plantain clover cow-parsley for the rabbit, nettle tops for soup, dock to ease nettle stings, a drift of heather on the cliffs, bracken uncurling, how to pick, where to pick, how to cut, when to sow, when to thin out, collect water from the butt don't shock the plants, walk on the dewy grass, put red ink in the vase and watch daisies turn pink, squeeze lemon on the red cabbage to keep its colour on the fruit salad to stop it turning brown, stewed apple, make syrups, make wines, make concoctions, cool the forehead with cucumber, make orange peel teeth, make cherry ear-rings, wash your hair in tea, eat chocolate

*Rose-Tinted Memories (Charlston, 2017)*

# TOWARDS A SYMPOIETIC ART PRACTICE WITH PLANTS

## INTRODUCTION

Currently, there is a widely acknowledged but poorly understood crisis in human relationships with the world. Human activities are deemed responsible for an array of environmental disasters including global warming, pollution of air, water and soil, extinctions, and depletion of resources. The 'Anthropocene'<sup>1</sup>, the age of humanity's global impact, indicates that, thousands of years from now, rocks and ice will show the increase in CO<sub>2</sub>, the doubling of soil nitrogen from fertilizer use, fallout from nuclear tests, as well as elevated levels of pesticides, plastics and other non-biodegradable man-made substances.<sup>2</sup> As a practicing artist, I am enmeshed in these activities unwillingly but not innocently. The inadequacy of political and technological responses to the increasing urgency for action<sup>3</sup> necessitates radically new forms of co-operative action (Braidotti, 2013:12, 190). Human-cultural disregard of plants as co-habitants is one, potentially causal, strand in the complex situation which has led to the present crisis. Our dependence on plants to maintain the conditions essential for life on the planet, makes the present an appropriate time for co-creative, artistic research to unsettle complacency, to explore, identify and test fresh ways of relating to this minoritised and largely overlooked life-form, and to initiate practical and conceptual change.

I am optimistic that artistic research practice as a shared process formulated in the light of present global environmental challenges as well as personal and historical contexts, can provoke dynamic new responses to the dilemmas facing our shared ecosystem. To this end I pose two related research questions.

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<sup>1</sup> The term Anthropocene, now widely accepted, was proposed by Crutzen and Stoermer (2000).

<sup>2</sup> Twenty-four indicators of earth's interacting processes termed the '*planetary dashboard*' were published in the journal *Anthropocene Review*, 16 January 2015

<sup>3</sup> Expressed in a special report of the Intergovernmental Panel on Climate Change (IPCC) 25 09 19. <https://www.ipcc.ch/2019/09/25/srocc-press-release/> (accessed 19.01.2020). Pressure groups such as Extinction Rebellion keep the public informed <https://rebellion.earth/the-truth/the-emergency> (accessed 04.02.20)



### **Research questions:**

*1 How can I develop an ethical, co-creative art practice with plants, which engages critically and affirmatively with posthuman cultural values and ecological contexts?*

*2 What might a co-creative art practice with plants disclose about plant-artist relationality?*

### **Art practice as an instrument of enquiry**

Deeming that artistic practice, in its imaginative capacity to work with contradictions and indeterminacy, has the potential to gain new perspectives that may not be accessible by more prescriptive, quantitative methods, this practice-as-research project proposes, performs and critically interrogates a co-creative art practices with plants. At the heart of this sympoietic practice, that is, making art *with* plants rather than *about* plants, simple nourishing activities such as touching, watering, drawing, looking, making poetry, and sharing experiences, inform the research. Through a combination of heuristic, performative and participatory approaches, I join posthuman discourse to grapple affirmatively with the present disconnections, engaging from within the struggle rather than assuming neutrality and standing outside as a critic (Braidotti, 2015).<sup>4</sup>

My fascination with plant relationality arises from a lifelong love of plants, a background in science teaching and two decades of conceptual book-art practice probing the interface between plants and people. Familiarity with science processes drives my curiosity about the potential for art practice to provide a different kind of instrument for research. My present move to include plants as co-creative partners requires imagination and speculation and therefore aims to provoke discussion through creative experiences rather than to establish repeatable procedures and objective measurements in order to make neat closures. Nevertheless, my training in scientific method provides a useful sounding board for developing and implementing a sympoietic art practice.

My wonderful childhood memories of plants, expressed in the epigraph on page 7, reveal eco-nostalgia in my personal feelings towards plants. Today, with each new plant encounter, revived enchantments and new understandings mingle with a sense of loss.

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<sup>4</sup> Braidotti's argument for affirmative ethics and affirmative politics is made clear in her lecture *Nomadic Affirmative Ethics* (2015).

The artistic enactments of transforming my memories, first to a simple block of continuous text and then to making the artist-book<sup>5</sup> *Rose Tinted Memories* (Charlston, 2017), revealed my desire to preserve the memories intact, to seal them off from today's troubles. Figure 1 shows how the double wrapped and tied-down artist-book reluctantly bursts open into complex cut-and-fold crevices which slice into the poeticised memories. My initially defensive stance about personal memories, which might have limited critical capability for research, is transfigured by carrying out art processes and sharing the progress of the introspective work with readers of this thesis. Thus, from the start, practice leads the development of solutions in this research project.

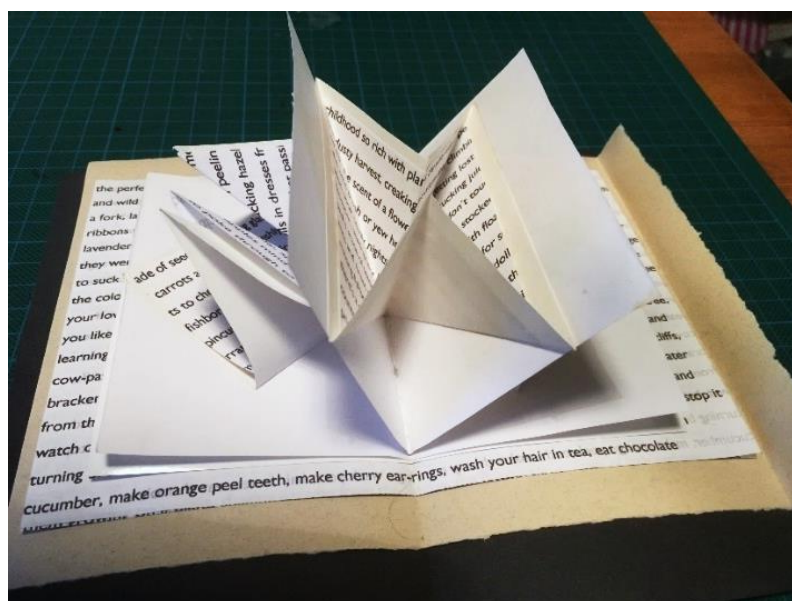


Figure 1 Artist-book, *Rose Tinted Memories* (Charlston, 2017).

Two of the many terms for research in the arts are used extensively in the thesis. 'Artistic research' (Schwab, 2018)<sup>6</sup> indicates the academic field, while 'practice-as-research' (Barrett and Bolt, 2007, Nelson, 2013) indicates my approach within this field which involves enactment and scrutiny of art processes (walking, growing, making) which are

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<sup>5</sup> To avoid controversy about the apostrophe, I adopt the convention 'artist-book' and 'artist-books', already established in USA and Australia and taken up by the Tate research network *Transforming Artist-Books* in 2012: <https://www.tate.org.uk/about-us/projects/transforming-artist-books> (accessed 12.07.19). In citations, the apostrophe remains as placed by the author.

<sup>6</sup> Michael Schwab is Editor-in-Chief of the *Journal for Artistic Research*, <https://www.jar-online.net>. Further information can be found at The Society for Artistic Research (SAR): <https://societyforartisticresearch.org> (accessed 27.06.19).

shared with plants and people, rather than final products. The ways in which sympoietic understandings feed into and arise from the practice itself and manifest through the processes and production of conceptual artist-books, participation, performativity, and poetics, are discussed throughout the thesis. Artistic failures and difficulties enrich the discussion and provoke changes to my practice. My confidence that open-ended practice-as-research has the potential to offer new understandings which are less accessible by data-driven, quantitative research approaches has been informed by discussions of exemplary practice (Barrett and Bolt, 2007, 2013, Manning, 2015, Coessens et al., 2009). I have been encouraged by the enthusiasm of feminist thinker Donna Haraway for the contributions of artist-researchers to 'sympoietic worldings' (2016:76-79). Additionally, artists who embrace the epistemology of posthumanism and new materialisms in combining theory with practice have given me confidence to continue (Arlander, 2018:41, Fries, 2017, 2018).

Entanglements between artistic research practices, feminist epistemologies, posthuman positions, and the ethical stance taken by critical plant studies (Marder, 2013, Wolfe, 2010) contribute to the formulation of a non-hierarchical sympoietic art practice. The key term 'sympoiesis' describes the activities found in any 'collectively produced, adaptive system'<sup>7</sup> (Dempster, 2000:1). Haraway aptly calls this 'worlding-with, in company', which suggests that we make sense of the world through mutual exchange and shared experiences. Haraway's sense of sympoiesis is inspirational: 'Sympoiesis is a simple word; it means 'making with'. Nothing makes itself; nothing is really autopoietic or self organising' (Haraway, 2016:58). Here, Haraway refers to the more familiar theory of 'autopoiesis' which claims that living systems are autonomous, closed and self maintaining (Maturana and Varela, 1980 [1972]:80, 98). The term co-creativity is almost synonymous with sympoiesis in that both indicate working-with plants rather than making work about plants. However, the term co-creativity does not necessarily carry the full posthuman, ethical implications of sympoietic practice discussed in this thesis.

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<sup>7</sup> Dempster's paper was presented at the ISSS Annual Conference in Toronto, 2000. Dempster differentiates sympoietic systems from autopoietic systems as follows: '1) autopoietic systems have self-defined boundaries, sympoietic systems do not; 2) autopoietic systems are self-produced, sympoietic systems are collectively produced; and, 3) autopoietic systems are organizationally closed, sympoietic systems are organizationally ajar'. Available at <http://www.iss.org/2000meet/papers/20133.pdf> (accessed 15.06.2019).

How I relate to plants as an artist is indicative of how I see myself in relation to the world: as a coloniser or as a co-habitant with other species. Feminist new-materialist understandings of agency and vital matter have been informative in this respect (Haraway, 2016, Barad, 2007, Bennett, 2010, Alaimo, 2016). Sympoietic practice necessitates a re-working of hierarchical dualisms which have created hard divisions between people and nature. The ecofeminist account reveals that 'difference' has been used historically to impose divisive dualisms: women 'lack' male attributes, plants 'lack' animal attributes. (Gaard, 2010, Shiva, 2013, Merchant, 2003) The low status of plants derives from this perceived lack of attributes found in 'higher' organisms – no movement, no brain, no nerves, no discrete organs, no expression, no language. However, human inability to regrow limbs, to live above and below ground simultaneously, and to produce food from air and water inside living cells are seldom interpreted as a 'lack'. The acceptance of differences without constructing hierarchies, makes competitive comparison with humans redundant.<sup>8</sup> Working co-creatively with plants rather than making work about them increases awareness of symbiotic liaisons and loosens hierarchical dominance in preparation for 'multispecies living' (Haraway, 2016:97, 102).

### **Contribution to knowledge**

I wish to highlight two ways in which this practice-as-research contributes to the field of artistic research. My move to form a naturalcultural alliance across species by planning, enacting and sharing 'sympoietic art practices with plants', together with the emergent concept of 'plant de-coherence' further an understanding of plant-artist relationships, non-exploitation of plants in art practice and collective ethical attentiveness towards plants. Lively sympoiesis with plants engages imaginatively with the call for a radical repositioning of humans to live equitably with the more-than-human world (Braidotti, 2013:68,158,190, Haraway, 2016:29, Oppermann, 2014:35). By acknowledging co-dependence with plants and fostering ethical relations, sympoietic art practice disrupts normative hierarchical values and plays a role in such repositioning.

I enact and examine a range of intersecting co-creative practices which re-conceptualise plants as artistic agents and active co-creative partners: growing plants from

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<sup>8</sup> Acceptance of difference is important in Feminist Cultural Studies for similar reasons. The feminist academic journal, *differences*, published by Duke University Press reflects these priorities.

supermarket fruit, drawing, solitary walking, writing, making artist-books, knitting, and weaving with grass. To support this approach, which spills over from conceptual book-art into performance, participation and multimodal assemblage, I develop material-ecocritical tools and ecosemiotic questioning of plant-human relationships which foreground ethical awareness, plant agency and ecological contexts when working with plants.

The richest source of provocation and shared understanding arises when participants are motivated to share art experiences with plants and during the active engagement of audiences in a continuing co-creative process. In collective manifestations of sympoietic practice, ecologically situated, participatory workshops, performative plant encounters and interactive artworks straddle process and production in the art practice. Organisms and artefacts interact and create extended assemblages of artistic 'naturecultures'. Crucially, in sympoietic practice, the communicative roles of the artist, audience and participants (including the plants) are interchangeable, so that shared artistic experiences and speculations transform and generate shared knowledge.

This open-ended, curiosity-driven investigation contributes to the variegated nature of practice-as-research by reaching out in multiple directions to connect feminist and posthumanist theories with artistic research, poetic encounters, science, and everyday life. Openly exploratory artistic practice enables imaginative engagement with risky, incomplete ideas rather than seeking objective evidence to substantiate factual claims thus contradictions successes, and failures in the practice function as provocative instruments of enquiry. This research occupies an ever-widening gap created by abandonment of 'blue sky' research<sup>9</sup> in science in favour of commercially driven performance targets and swift results.

The concept of 'plant de-coherence'<sup>10</sup>, which took shape during sympoietic practice with plants, offers a second significant contribution to artistic research. My research activities have exposed multiple effects of interference which hide, alter and delimit my relationship with plants. The concept of plant de-coherence provides a basis for exploring the tangle of cultural interference which changes relationalities during the

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<sup>9</sup> Blue sky research in science is driven by curiosity and creative freedom. A discussion of blue sky research can be viewed at <https://m.youtube.com/watch?v=kj-iSRCvLK8> (accessed 17.05.19).

<sup>10</sup> I hyphenate de-coherence to make a distinction from 'quantum decoherence', which is an inspiration for plant de-coherence but not the same concept.

practical and conceptual transition between plants and humans. Plant de-coherence enriches the existing theory of 'plant blindness' (Wandersee and Schussler, 2001) by nuancing an understanding of plant-artist relationships in co-creative practice. Exploration of de-coherence effects in art practice releases new metaphors and vocabulary from quantum theory into the dialogue between artistic research and critical plant studies.

### **Plants in a human-centric world**

The recognition of co-dependence with other species accentuated in this thesis may seem irrelevant in the present Anthropocene<sup>11</sup>, when humans are more powerful than at any time in history because of expanding population, accumulated knowledge and the extended powers of technology. However, the success of the human species is proving so damaging to life on earth that scientist Stephen Hawking<sup>12</sup>, predicted that self-destruction is a serious possibility. While Hawking and others<sup>13</sup> advocate technological solutions such as colonies in space, feminist new materialists call for a conceptual repositioning of humans in the Anthropocene as a crucial step towards viable, co-operative lifestyles (Alaimo, 2016, Braidotti, 2013:48, 1992, 2016:97, Demos, 2017). The link between attitudes towards nature and environmental action has been widely asserted (Merchant, 2003, Gaard and Gruen, 1993, Klein, 2014)

The concept of the Anthropocene is contentious,<sup>14</sup> the term itself suggests that humans are in charge, responsible for the damage, the salvation, everything. Paradoxically, at this moment of seemingly greatest influence, the processes set in motion by the Anthropocene are unpredictable and out of control, signalling the failure of human control and putting exceptional human agency into question (Alaimo, 2016:3189, Demos, 2017:31). Artistic responses to the Anthropocene are valuable in that they

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<sup>11</sup> The effects of the Anthropocene are attributed to global economic growth following the industrial revolution that began to be apparent in the 'great acceleration' of the 1950s. See the International Geosphere-Biosphere Programme 1989-2015: <http://www.igbp.net/news/pressreleases/pressreleases/planetarydashboardshowsgreataccelerationinhumanactivitysince1950.5.950c2fa1495db7081eb42.html> (accessed 03.04.19).

<sup>12</sup> Hawking's views, expressed in a BBC 2 documentary *The Search for a New Earth*, are described in the Radio Times: <https://www.radiotimes.com/news/2017-09-11/stephen-hawking-says-we-need-to-move-planet-but-is-he-right/> (accessed 29.05.19).

<sup>13</sup> In a short video interview with Oliver Morton in 2009, James Lovelock, creator of Gaia theory favours geo-engineering: <https://m.youtube.com/watch?v=29Vip-PbuZQ> (accessed 04.04.19).

<sup>14</sup> '...catastrophic anthropogenic global warming (AGW) is a progressive cult-belief and alternative energy boondoggle, not real science' (Thornton 2017) Available at <https://www.frontpagemag.com/fpm/267356/al-gore-cant-save-global-warming-cult-bruce-thornton> (accessed 05.05.19).

attract political attention. Without a broad spectrum of creative interest informed by such discourse, decisions will be made by those who envisage solutions solely in terms of technological progress, expressed in a nutshell by Martin Rees:

‘The dawn of the Anthropocene epoch would then mark a one-off transformation from a natural world to one where humans jumpstart the transition to electronic (and potentially immortal) entities, that transcend our limitations and eventually spread their influence far beyond the Earth’.<sup>15</sup>

Such ideas allow a repetition of damaging practices on other planets in the future. As a counterbalance to ‘manmade’ solutions, the concept of the ‘Phytocene’<sup>16</sup> emphasises the role of plants in stabilising the climate, oceans, soil and atmosphere, and maintaining life-supporting conditions<sup>17</sup>. Better still, we might work together (plants and humans) to maintain a liveable world, envisaged by Natasha Myers as the aspirational Planthropocene (2017:127).

While I fully acknowledge the importance of diverse art practices, cultures, habitats and plants, I use terms such as nature, culture, human, plant, artist, in an everyday, Western sense in the thesis to reflect the situatedness of my personal artistic activities with plants in place and time. However, in order to practice ecologically informed art today, it is necessary to recognise the mesh of historical influences which shape present-day attitudes towards plants. Western historical elevation of human culture over nature sets humans apart from other species and marginalises plants as a low form of life, passive and unfeeling. Established disconnections from nature are held responsible for environmentally damaging, exploitative activity (Merchant, 2003, Klein, 2014, Uggla, 2010:80). Three mutually reinforcing human-centric paradigms have strengthened hierarchies and divisions. *The mechanistic world model; divisive dualisms, and capitalism* (Gaard and Gruen, 1993:236) have contributed to the conditions which necessitate radical change, therefore I will pause to summarise the ecofeminist account of how they became so influential and deeply entrenched (Merchant, 1989).

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<sup>15</sup> Martin Rees is astronomer royal and former president of the Royal Society. Quoted from a Guardian article: <https://www.theguardian.com/environment/2016/aug/29/declare-anthropocene-epoch-experts-urge-geological-congress-human-impact-earth> (accessed 04.11.19).

<sup>16</sup> I propose adding the ‘Phytocene’ to Haraway’s Chthulucene, Capitalocene, Plantationocene and other ‘cenes’ introduced to stress the importance of keeping the concept of the Anthropocene open (Haraway, 2016:30).

<sup>17</sup> <https://earthobservatory.nasa.gov/features/HANPP> (accessed 03.04.19).

Aristotle's hierarchical classification of living things around 400 BCE considered plants to be a deficient form of uncontrolled growth, 'merely living, growing matter' (Nealon, 2016:32).<sup>18</sup> The even earlier Old Testament<sup>19</sup> established human dominion over plants.

'And God said, behold, I have given you every herb bearing seed, which is upon the face of all the earth, and every tree, in the which is the fruit of a tree yielding seed...'.<sup>20</sup>

Thomas Aquinas combined and Christianised these two historical influences in a fixed, hierarchical order of matter predetermined by God. The resulting Medieval *Great Chain of Being*, in which plants were the most inferior life form, little better than rocks and hell, has been portrayed and reproduced many times by artists (Figure 2).

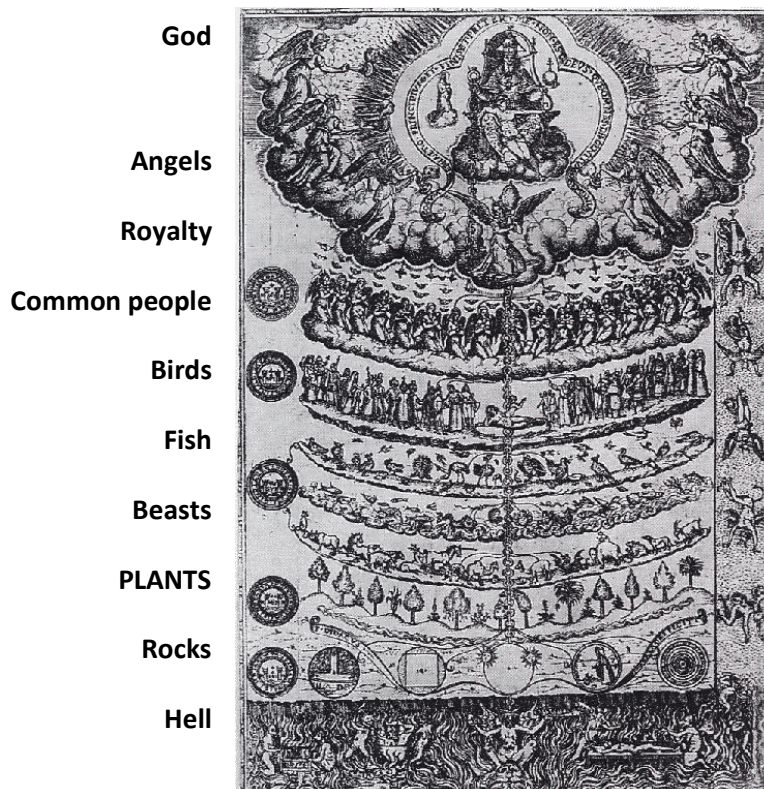


Figure 2 The Great Chain of Being (1579).<sup>21</sup>

<sup>18</sup> A discussion of historical Greek views on plants also appears in Marder (2013).

<sup>19</sup> The latest possible date for the original Chapter 1 Genesis is 250 BCE but many sources conclude that it was written centuries earlier: [https://en.m.wikipedia.org/wiki/Dating\\_the\\_Bible](https://en.m.wikipedia.org/wiki/Dating_the_Bible) (accessed 03.04.19).

<sup>20</sup> The Old Testament, Chapter 1, Genesis, verse 29. King James version.

<sup>21</sup> Public Domain image. *Rhetorica Christiana* (1579), author Didacus Valades [https://commons.wikimedia.org/wiki/File:Great\\_Chain\\_of\\_Being\\_2.png](https://commons.wikimedia.org/wiki/File:Great_Chain_of_Being_2.png) (accessed 26.07.19)



Continuing the narrative of hierarchy, Charles Darwin's theory of evolution through natural selection (2017[1859]) challenged the fixed order by proposing 'mutable' species. However, humans retained their superior position, achieved through competition. Thus, science endorsed human exceptionalism in a hierarchical system. The ecological 'pyramid' model depicts predators such as eagles and lions as 'higher organisms' at the apex. They are termed (and represented by artists) as mighty, majestic, noble, when a differently constructed narrative could deem them parasites, dependent on other organisms for food. The logic of placing life-giving plants below their consumers, the prey beneath the predator, exposes the competitive values of 'the survival of the fittest'<sup>22</sup> which drive colonialism, neoliberalism (Klein, 2014:72) and Neo-Darwinism.<sup>23</sup> Thus, popular science reaches beyond empirical study to influence a range of disciplinary narratives and hierarchical norms which denigrate plants and therefore cannot be ignored by artists. It is important to note that all artists work in the more-than-human world and that attitudes in this respect inevitably leak into practice. Choices in art practice influence the viewpoint of artists, participants and wider audiences.

Using Francis Bacon's C17 empirical methods for studying and controlling nature, Newton<sup>24</sup> 'discovered' laws governing a deterministic world in which human agents operate. This mechanistic world model drove advances in technology which enabled control of nature through mining, trade and agriculture, making plants a valuable merchandise for commodification and profit. Enlightenment reasoning prioritised the progress of 'man', supporting exploitation of nature with far-reaching environmental consequences (Uggla, 2010:87, 2010, Soper, 1995:257-259). Bacon warned against greed, but he could not have anticipated the extent of deforestation, monoculture and genetic engineering that characterise plant exploitation today.

The early accusatory ecofeminist stance<sup>25</sup>, that men must take the blame for environmental wrongs, is giving way to an affirmative approach to practical action

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<sup>22</sup> The phrase 'survival of the fittest' was coined by Herbert Spenser in *Principles of Biology* (1864) as a reading of Darwin's theory of natural selection. It is widely misused to justify aggressive competitive activities. <https://www.newscientist.com/article/dn13671-evolution-myths-survival-of-the-fittest-justifies-everyone-for-themselves/> (accessed 03.04.19).

<sup>23</sup> Neo-Darwinism combines Darwin's theory of evolution with the latest genetics, often stressing competition (Dawkins, 2016[1976]).

<sup>24</sup> Leibniz and others made similar discoveries.

<sup>25</sup> Early ecofeminists were criticised for prioritising women and nature while neglecting issues of race and class. For example, they rejected the gender-oblivious 'deep ecological self' of Arne Naess as 'fundamentally narcissistic, androcentric and colonizing' (Gaard, 2011:26-53).

evidenced by Merchant's more recent proposal for an 'ethic of partnership' where men and women work together in a non-dominating relationship with nature to combat environmental crises (2010)<sup>26</sup>. New materialists emphasise the ubiquitous exchange of matter and energy which repositions humans as life forms, and basically as matter, thus reinforcing the feminist non-hierarchical stance without arguments of injustice and division (Barad, 2003:803, 2013:37). An affirmative, non-hierarchical approach is essential to even the smallest co-creative activity with plants. This thesis critically examines specific manifestations of sympoietic art practice in the light of these commitments.

### **Thesis Overview**

The thesis comprises an introduction, six chapters and a conclusion.

The *Introduction* shows how my day-to-day art practices interact with historical concepts of plants, the present environmental crisis, my childhood love of plants and a background in science teaching to drive this practice-as-research project. Sympoietic art practice with plants, conceived as working and thinking 'together with' plants is proposed in response to my research questions. Inspired by Haraway's term 'sympoiesis', the rationale of the thesis is to investigate how I relate to plants as an artist and how the relationship changes with sympoietic processes. The contributions to knowledge are shown to reside in the critical enactment of sympoietic art practice and the emergent concept of plant de-coherence, both of which further an understanding of plant-human and plant-artist relationships, which in turn have the potential to influence practical and political decision making.

In Chapter 1, *Preparing the Ground for Sympoietic Practice*, embodied art practice prepares the way for the growth of an effective research methodology. Ethical implications crowd in when living plants are appropriated for artistic purposes thus forming naturalcultural alliances. The process of knitting with couch grass as an artist generates ethical priorities of egalitarian, non-exploitative and ecologically situated practice. These ethical considerations prompt a framework of non-invasive research art-processes in a merging of conceptual book-art practice with ecological art and participation. Experimental artist-books (proto-artist-books) are proposed as a method

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<sup>26</sup> Merchant's full lecture can be viewed at <https://www.youtube.com/watch?v=GP-HbjCYru4> (accessed 05.05.19).

for exploring ideas as they develop, for motivating further research and documenting practical activities of walking-with-plants, growing plants and making-with-plants. 'Diffractive' methods of self critique (Haraway, 1992, Barad, 2003, van der Tuin, 2011) are found to be compatible with these starting points.

In Chapter 2, *Braving the Conceptual Thicket of Plant De-coherence*, the artwork *Planting My Arm (2018)*, provokes unexpected emotions when I bury my arm in the soil in an attempt to get closer to plants. Analysing this work now assists the shaping of 'plant de-coherence' as a conceptual basis for exploring plant relationalities. Drawing on quantum decoherence theory to formulate plant de-coherence, I propose that cultural effects interfere and prevent us from knowing plants directly. The artwork *Plant Generator (2019)* creates distortions which invite interrogation of the complex relations and cultural filters which hide plants from direct comprehension in the plant de-coherence effect. The concept of plant de-coherence diverges from the theory of 'plant blindness', expressed as human failure to notice plants, which is curable through education (Wandersee and Schussler, 2001). Together with participatory, sympoietic activities, the concept of de-coherence forms a platform for experiencing, interpreting and articulating complex plant relationships, naturecultures and agential capacities.

Through ephemeral artwork and creative metaphor, I investigate posthumanist attempts to overcome the oppositional divisions between nature and culture which contribute to de-coherence: the concept of a nature-culture continuum (Massumi, 2002, Braidotti, 2013:2, 82), naturecultures (Haraway, 2016) and problematic anthropomorphisms (Bennett, 2010). These concepts feature in the discussion of cross-species partnerships in art practice.

In Chapter 3, *Making-With-Plants*, my short video *Grow Make Read (2016)* explores the importance of handling and touch in processes of growing plants and making artist-books. Mapping my practice against the genealogy of the artist-book, I retrace the artistic journey which led to me to take up the challenge of forging a non-dominating relationship with plants in sympoietic art-practice. Changes to practice necessitated by new sympoietic commitments reveal the potential of the book form for exploring and informing sympoietic practice when combined with making activities such as cyanotypes and drawing. 'Proto-artist-books', which materialise alongside performative acts, writing and further artwork are construed as a research method whereby poetic ideas and

speculations are expressed and developed. Intersections with ecological art prompt a shift towards contingent books embedded in participatory experiences, poetic encounters and changing relationships. New ideas emerge as the proto-artist-books interact and accumulate to form a multimodal assemblage. Drawing with plants is found to be a satisfying and intimate process which goes beyond representation. In the final section, plant de-coherence effects in art are analysed in a number of relevant artworks, with particular reference to the symbolic load imposed on plants, plant aesthetics, and plants as 'spectacle'.

Chapter 4 *Growing-with-Plants*, interrogates familiar processes of growing plants from the point of view of an artist seeking to scrutinise plant-artist relational changes through practice. I discover connectivity with plants through day-to-day attention and care in a long-term growing project in which supermarket fruits are transformed from commodity to creative partners. Critical scrutiny of plant exploitation reveals layers of complexity in these apparently empathetic growing processes. Growing-with-plants strongly supports the possibility of agency and 'self' on the part of plants. I consider implications of autopoiesis, self, agency and ownership through sympoietic growing projects (*Thoughts on the Self of a Plant*, 2017), artist-books (*Matters of Agency*, 2017) and poetry (*The Final Breath*, 2016), with reference to narrative agency (Oppermann, 2014), agential realism (Barad, 2003), and distributive agency (Bennett, 2010:21, 28). Patterns of connection and divergence in growing and making processes with both plants and artist-books and the subsequent overlappings of organism and artefact are considered with reference to plant de-coherence effects.

In Chapter 5, *Walking-with-Plants*, sympoietic approaches to walking-with-plants are assessed in the wider context of walking art. The evolution of walking art from an egocentric occupation to a more participatory artform is seen in the trajectory of Hamish Fulton's work (2012). I expand aspects of the *dérive* (Debord, 1958) for co-agential, performative walking-with-plants as an artist in the urban setting of Manchester. Ecosemiotics (Maran and Kull, 2014) and multimodality (Kress, 2010) serve as mutually supportive methods for articulating plant situations in proto-artist-books which drive the development of ideas. These practices tap into the narrative agency of plants which manifest in the poetic writing and artist books discussed. Limitations in my initially negative stance towards de-coherence and commodification of plants in the city

incentivise more inclusive, shared walking experiences. Dérive walks are contrasted with more meditative Qigong walking in woodland and shared experiences of plant-led walking in company in my artist-books *Plant Dérive: a catalogue of plant consumption* (2015), *Moss Buzz* (2016), and *Cat-walking in the woods* (2017).

Chapter 6 *Participating-with-Plants* expands the experience of walking in company to wider, collective, participatory co-creative practices with plants and extended artworks such as *Thirteen seeds* (2017-2019). I engage critically with the challenges of applying ethical, non-exploitative strategies during two participatory events in Whitworth Park which include aspects of Latour's non-hierarchical 'collective' (2004:57-87). Empathy and plant agency feature in my interactive artwork *Becoming Plant* (2017), which also explores performative aspects of audience participation. The contradictory prospects of sympoietic exhibiting in a formal gallery setting and possibilities for a 'performative audience' feature in a discussion of the curation and reception of the exhibition *Plant Encounters: when plants are included as participants in art*<sup>27</sup>.

In the *Conclusion*, I summarise the project and assess achievements, changes and avenues for further research. I argue that the challenges of sympoietic practice not only inform my thinking, behaviour and output as an artist but also have the capacity to generate new perspectives more widely. The concept of plant de-coherence developed in this thesis arose directly from practice. Plant de-coherence effects in art processes further shared understandings of naturalcultural interfaces and relationships.

Throughout the thesis, fragments of poetry, text and imagery are combined with theoretical discussion in a 'double articulation' of theory and practice (Bolt, 2007:735). In the multi-stranded struggle of this research, thinking collectively converges with thinking-by-doing to engage with the difficulties of approaching plants as co-creative partners. Discussion with plants is impossible, thus we cannot share problems, make decisions together or give reassurance of mutual commitment. I have set out, paradoxically, to form an equitable, co-creative relationship with plants in full knowledge of the unequal dynamic which ultimately puts me in control. I have undertaken to work sympoietically with plants knowing that conclusive, demonstrable success is out of reach. To me, these obstacles are the hallmarks of artistic research, in which the power of speculation, imagination and participation are valued as a means of

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<sup>27</sup> Exhibition of work by Lin Charlston at Grosvenor Gallery, Manchester, November 2017.

probing the not-envisaged, not-understood, not-accounted for. The successes and failures, tensions and discomforts which arise from these incongruities generate energy to compel the artistic research practice to form hybrid, co-creative naturalcultural alliances with plants.

# CHAPTER 1

## PREPARING THE GROUND FOR SYMPOIETIC PRACTICE WITH PLANTS

In this Chapter, the embodied act of knitting with grass channels my choice of practical processes, ethical priorities and critical methods as I formulate an effective research methodology for developing sympoietic art practice with plants as a process of enquiry. The attempt to work with plants as partners, rather than simply using them to make art, is fraught with moral, ethical and political challenges which demand relational and processual changes. A composite methodology is called for to embrace the scope of this approach: 'using methodologies of transverse connections and mixed models' (Coessens et al., 2009:68). The artistic character of this practice-as-research is essentially open-ended and heuristic thinking-by-doing, supported by methods and ideas from more than one critical field (critical plant studies, material ecocriticism, ecosemiotics).

### **When grass is enlisted for co-creation**

The seeds of methodology are present in the simple act of reaching out, as an artist, to touch a strand of living couch grass. The intention, the ambiguity and the contradictions of art practice with plants are fully present. Both poetry and possession are there. Co-creative processes are at the same time made possible and abandoned at the first touch. Witnesses are included or excluded. The potentials for participation and performance are embraced and rejected.

Couch grass grows as long rope-like branching rhizomes with nodes every few centimetres where, potentially, new roots and leaves can grow. If the rhizome is cut into pieces, each node can produce a new plant which in turn can form its own lengthy rhizome. Couch grass roots have powerful healing properties (dogs eat grass for medicine) but, paradoxically, it is also an invasive weed. The RHS website uses the words 'infested, control, damaging, tough treatment, completely killed' in connection with

couch grass.<sup>28</sup> This quest for eradication applauds my removal of couch grass from the garden and yet sympoiesis calls for hesitation and questioning of motives.

I tied long trails of grass together and made squares of knitted grass (Figure 1.1), thereby introducing layers of cultural significance to the 'nature' of the plant – knitting for babies, knitting squares for refugees, grannies knitting. A video, *Grass Lawn Grass* (Charlston, 2017),<sup>29</sup> shows how the nature and culture of the grass is looped and linked into the knitting when the knotted grass stem disturbs the regular rhythm of knitting and disrupts the usual patterns made by repeated stitches. Passing a single piece of knitting from one needle to the other creates two dissimilar sides, co-dependent, each re-defining the other, neither nature nor culture fully asserted. Long after the knitting activity, the grass reasserts its agency by clearly imprinting grass shapes in the mind's eye when my body-eyes are closed.



Figure 1.1 Grass knitting (2018).

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<sup>28</sup> <https://www.rhs.org.uk/advice/profile?pid=2833> (accessed 29.12.19).

<sup>29</sup> Viewable at <https://vimeo.com/209580195> (accessed 29.12.19).



A poem, voiced during the video, refers to another square of grass, the neatly clipped lawn, which points to a shared culture of decency:

*When did grass become a green square?*

*How did it come to matter how straight the edges?*

*How smooth and flat, how mono-cultural the lawn?*

*How did the lawn become a sign of decency?*

*A Ladybird-Book signal of 'all is well and proper'.*

*Why did 'decent' people begin to display their like-mindedness – with grass?*

Extract from the video *Grass Lawn Grass* (Charlston, 2017).

The rhizomatic capability of couch grass is a model for this research practice: 'It has neither beginning nor end, but always a middle (milieu) from which it grows and which it overflows' (Deleuze and Guattari, 2014 [1987]:22). Similarly, my methodology emerges from what is already there, a watershed of contaminants, complicities, lures and uncertainties which crowd in when couch grass is enlisted for co-creation.

### **Ethical priorities: egalitarian, non-exploitative, ecologically situated**

At a time when anthropogenic environmental devastation has reached a global scale, I consider it imperative to adopt sensitive ethical values which reach beyond simply minimising the damage caused by art processes and production. The thrust for sympoietic methods of co-production with plants arises in a desire for co-operation and recognition of our inter-dependence, however, the simple act of collecting couch grass presents ethical dilemmas. How can I approach grass co-creatively and ethically? To share, care, consider, assist, appreciate, provide, correspond, nurture, these incentives contrast with motives of 'competitive autonomy': to overcome, harness, master, control, conquer, manage, gain advantage, profit, consume. While the competitive stance demands ethical management of the environment to sustain human life in the future, environmental ethics now include an element of opposition to this managed 'ethic of domination'. Commitment to affirmative, egalitarian dealings with co-habitants (human and more than human) has been robustly asserted in the post-humanities

(Braidotti and Hlavajova, 2018:345-346, Barad, 2003:823, Haraway, 2016:150, Marder, 2013:51, Puig de la Bellacasa, 2017). The sympoietic artist's accountability for responsible dealings with the world is therefore not limited to human-centric concerns.

Three ethical principles of *egalitarian, non-exploitative, ecologically situated* practice emerge from the process of knitting grass as particularly relevant to the plant-artist relationship in sympoietic practice with plants. These criteria form the basis for co-creative strivings and ongoing affirmative critique throughout this thesis. I will examine them in turn.

The 'egalitarian' ethic in sympoietic art practice originates in the posthuman urge to think differently, less anthropocentrically, about ourselves (Braidotti, 2013:60-67). This is a call for inclusivity rather than a claim that plants and humans are the same or equal in every sense. I am concerned about how, as an artist, I might unfix my domineering relationality with plants to make space for co-operation. Equitable dealings with plants are jeopardised by tacitly accepted positive and negative valences, thus, in the context of sympoietic art practice with plants, equality is characterised by active commitment to non-hierarchical values. Threats to egalitarian practice include, colonial attitudes and power structures founded on human-centrism; bioregionalism, which implies ownership; eco-nostalgia, which objectifies plants and prioritises human subjectivity; mis-associations with gender which portray flowers as feminine; and finally exploitation of plants through commodification. These will be considered in more detail as sympoietic practice unfolds in the following chapters. In the case of knitting couch grass I can argue that this grass is a menace (to humans) and smothers other plants (grown by humans) but when grass is viewed as a companion, co-dependent species, these human-centric arguments evaporate. The question of how to work on a more equal footing with grass remains speculative but heralds shifting attitudes which bring about change.

'Non-exploitative' methods comprise the second ethical requirement for sympoietic art practice. In addition to every artist's obligation to minimise waste and polluting materials, ethical co-creative decision-making calls for an increased ethic of care towards plants (Puig de la Bellacasa, 2017). It is not clear what might constitute exploitation or damage. For example, eating plants might appear to be exploitative. However, as animals, we rely entirely on plants for food, either directly or indirectly by eating other animals. In turn, plants are well adapted to being eaten. Grazing benefits

plants by letting in more light, new shoots are stimulated, and smaller species have room to grow. Thus, eating for nourishment is necessary and neither exploitative nor essentially detrimental to plants. Similarly, growing plants to eat or enjoy assists plants by ensuring further propagation. However, both growing and eating plants can constitute harmful treatment in, for example, practices of monoculture which damage soil structure, curtail plant diversity and weaken resistance to disease. Accordingly, sympoietic practice entails, not only avoiding aggressive market-driven aesthetics and portrayals which encourage commodification of plants, but also being alert to subtle complicity with these. The exploitative aspects of knitting couch grass are open to discussion. Scale might be relevant. While little is lost or damaged for the benefit of my research, a large-scale destruction of plants for art purposes might become exploitative. Would this assessment be different if I knitted squares from trailing periwinkle? Or if grass was taken from my neighbour's garden without their consent? The complexities of care and non-exploitation of plants during growing and making are deeply entangled with cultural concerns.

In the context of 'ecologically situated' practice, a discussion in *The Artistic Turn* (Coessens et al., 2009:65-67) emphasises the situatedness of the artist as an important factor in the authenticity of an artwork. When working sympoietically with plants, awareness of ecological context is focused not only on the artist and the authenticity of the artwork but also extends to the situatedness of the plants. Plants are always already situated ecologically when the artist approaches, even if their niche is a tiny crack in the pavement or a flowerpot. One of the valuable aspects of sympoietic art practice is sensitivity to situation, the imperative to work and think within the conflictual world rather than taking a standpoint outside as a critical observer. The sympoietically informed artist is required to think twice before disrupting plant situations and existing networks in which plants live. Arbitrary damage to plants (Marder, 2013:180) might include disrupting the plants' actual habitat or, equally damaging, portraying plants in a way which negates their symbiotic connectivity.

In sympoietic art practice, it is important that processes and representations of plants confirm plant relationality by re-pairing and strengthening beneficial networks or by co-creating new connections situated in the practice as well as the world of the plant. These obligations characterise practical manifestations of sympoietic practice with plants.

## **Practical sympoietic processes and the proto-artist-book**

Sympoietic practice is a receptive, responsive engagement with plants as well as an evolving cluster of non-invasive research practices for ethically accountable, co-creative art. The thesis interrogates embodied processes of growing, making, walking and participating-with-plants. These exploratory art practices offer convivial, participatory opportunities for building plant-artist relationships. The process of making artist-books is one of a wealth of attendant practical methods which facilitate thinking, expressing, and sharing the developing ideas with audiences.

The act of committing thoughts, not only to words, images or paper, but to the construction and orchestration of a book, organises, intensifies and transforms ideas. Proto-artist-books, that is, unrefined stages in the art-making process, have emerged from and driven my investigations, encapsulating emergent ideas and feeding into further artwork, thus generating a 'naturalcultural' dynamic with the concepts of organism and artefact. My research emphasis on sympoietic processes and relationships rather than 'art output' creates tensions between process and production but does not impede sharing the inspiration and the work. Dissemination of contingent, mutable and interrelated artist-books takes the form of workshops, residencies, collective walking, making and planting, interactive works, informal exhibitions and small-scale site-specific interventions in which the role of audience merges with participation.

The ecologically situated image-making methods I adopt include photography, video, drawing and cyanotype. Photographs are taken on location in variable conditions using a simple digital camera or an iPhone. The intention is to retain the sense of spontaneity in my actions so that the plants influence my decisions and responses. Freestyle writing and poetry encourage a speculative and imaginative interweaving of practical and intuitive insights, characteristic of lateral thinking: 'Vertical thinking is concerned with proving or developing concept patterns. Lateral thinking is concerned with restructuring such patterns...and provoking new ideas...' (de Bono, 2016(1970):14). Imagery formed with living plants and light-sensitive chemicals (cyanotype), and pigments (chlorophyll) are particularly expressive of the changeable conditions in which I work.

Highly process-based techniques, which use plants as a raw material such as eco-printing and dying are not discussed in the thesis because they shift the focus of attention from the plants to the technique. In order to minimise plant exploitation, I use 'waste' plant

material from gardening and food preparation to grow new plants and to explore their qualities by knitting, stitching and making paper with them. Co-creativity is characterised by a nonthreatening interplay between plant agency and cultural intricacies which characterises naturecultures. Grass stitching on paper, for example, is directed by the agency of the grass, nevertheless a new text-like, cultural dimension appears as the work proceeds, (Figure 1.2).



Figure 1.2 Grass stitching on paper (2018).

### **Critical approach to practice**

Plant science (Mancuso and Viola, 2015, Trewavas, 2015, Chamovitz, 2012:167-169), and aspects of environmental philosophy (Kohn, 2013, Latour, 2004, Serres, 1995, Ingold, 2000) have given me an overview of current knowledge and attitudes towards plants which informs my critical thinking about the plant-artist interfaces encountered in this art-practice-as-research. Sympoietic practice inevitably engages in the debate about the philosophical and cultural place of plants in human lives which is found in critical plant studies. Embracing similar agendas and standpoints to critical animal

studies, the emerging field of critical plant studies unsettles human privilege with respect to plants from multiple perspectives and is accordingly part of the wider posthuman turn. Already an established field in the humanities, critical animal studies (Haraway, 2003, 2008, Abram, 2010, Wolfe, 2003, 2010) examines the history of human-animal interactions and proposes possibilities for equitable sharing of the world with the 'more than human' in the future (Waldau, 2013: xiii). Even in this plant-friendly context, plants are often minoritised or mentioned only in passing. My research into plant-artist exchanges accordingly joins the field of critical plant studies in directing critical artistic attention towards plants (Marder, 2013, Nealon, 2016, Pollan, 2003, Hall, 2011, Ryan, 2011). Michael Marder's *Plant-Thinking: a philosophy of vegetal life* (2013) is cited as a seminal text in critical plant studies (Stark, 2015:180). One departure point for my research is found in Marder's question: 'How is it possible for us to encounter plants?' (2013:3). For this reason, my initial research questions refer to undifferentiated plants, rather than a particular type of plant. In the enactment of creative, sympoietic practice, however, the feel of couch grass in my hand and the glistening hairs on the back of each bean leaf become individual and real.

Creative questioning permeates the research and impels affirmative self-critique. How do my smallest actions and decisions either change or compound received attitudes towards plants? Am I disrupting the plants' ecological situation? What changes to my practice are necessary to work with plants as co-creative partners? Am I successfully instilling posthuman, ethical values into my practice or is it a pretension? Thus, self-accounting is infused with the principles which helped to shape the practice. In the last few years, material ecocriticism has emerged as a broadening of the critical field of ecocriticism<sup>30</sup> to incorporate new-materialist insights regarding agency, posthuman interrelations and material semiosis or 'storied matter' (Iovino and Oppermann, 2014:28).<sup>31</sup> The material-ecocritical approach brings together present-day environmental issues and posthuman relations to stimulate critical thinking about

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<sup>30</sup> Ecocriticism emerged in the late 1970s as a form of literary criticism which foregrounds the portrayal of nature-culture relationships, focussing on the environmental stance found in nature writing. The remit of ecocriticism has expanded over the last fifty years from its early attention to romanticised nature and wilderness to an emphasis on present-day environmental issues and ecological justice (Glotfelty, 1994). Available: [www.asle.org/wp-content/uploads/ASLE\\_Primer\\_Defining\\_Ecocrit.pdf](http://www.asle.org/wp-content/uploads/ASLE_Primer_Defining_Ecocrit.pdf) (accessed 20.06.19).

<sup>31</sup> See also Iovino and Oppermann (2014).

human-non-human dealings and therefore provides relevant criteria for critiquing sympoietic art practice with plants. (Iovino and Oppermann, 2014:5)

Sympoietic practice redirects critical attention away from final objects of production towards fluctuating, adaptive plant-artist relationalities. This more dynamic frame of reference demands a perspective in which I scrutinise my contribution to the formation of that relationship in the course of my practice. In this context, the idea of diffraction is a refreshing new metaphor for approaching self critique or what is usually termed 'self-reflection'. The reflection of light from a mirror reproduces a mirror image whereas, light passing through a diffraction grating is diffracted, that is, separated into different colours which interfere with each other to form patterns when they overlap. Donna Haraway introduced diffraction as a metaphor, which maps interference patterns and interconnections rather than replicating or reflecting on situations (Haraway, 1992:300). Events are not viewed in isolation but are seen to influence and interfere with each other over time. The affirmative emphasis of 'diffractive reading' where the appraiser operates from within the problem, reading narratives through one another, rather than standing back and reflecting on them from outside as a critic, is particularly appropriate for sympoietic research. A diffractive appraisal engages with the way different art activities interfere and interact with one another and includes the effects of my presence as both artist and appraiser. By contrast, reflective appraisal takes place at a distance, looking back, and can no longer influence the course of events.

Karen Barad further advanced diffractive reading as a critical tool by referring to the metaphorical significance of quantum diffraction to methods of appraisal (2007:71-94, 2003:4).<sup>32</sup> Barad holds that the turn from critical reflection to a diffractive reading, which attends to details of material entanglements, places the appraiser in a 'performative rather than representationalist mode' (2007:88). Barad's posthumanist account of performativity considers all events, that is, interactions between humans, non-humans and materials, as performative.<sup>33</sup> 'Posthuman performativity' differs from 'performance' in that all actions are viewed as performative interactions which are part of a discursive practice of interrelations. Thus performative art in the context of sympoietic art practice

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<sup>32</sup> For a more complete description of diffraction and the implications of both reflective and diffractive methods of critique, see Barad (2007:88-112). For applied diffractive techniques, see Iris van der Tuin (2011, 2016).

<sup>33</sup> Barad's account of posthuman performativity hinges on her understanding that events are co-agential rather than governed by human agency.

does not imply a planned performance but includes demonstrative actions, explorative events and art experiences with plants.

A diffractive reading of knitting squares from couch grass *through* the ethical criteria of egalitarian, non-exploitative, ecologically situated practice reveals that these criteria both interfere and reinforce each other. While the process of knitting cannot be ecologically situated, it nonetheless allows a non-conflictual interchange between culture and nature. Culturally, knitted squares denote participatory care and comfort offered when squares are joined to make blankets. The question of exploitation is not clear-cut. If the couch grass is viewed as an invasive weed, knitting might be preferable to herbicide which, although ecologically situated is wantonly destructive (Figure 1.3). However, if the grass is viewed as a co-agential species, the intervention of knitting cannot be justified in terms of aesthetic gratification or mere functionality. These intricacies place a responsibility on co-creative artist-researchers to appraise the value of their activities in each situation. In this way, the physical process of knitting grass has provoked questions and analysis which contribute to the development of sympoietic practice.



Figure 1.3      Left: Grass sacrificed for art practice      Right: Grass killed with herbicide.

Considering what constitutes a sympoietic relationship with plants adds an extra dimension to the thinking required by the artist in practice-as-research. Thought and action intersect in the critical discourse pertaining to plants, flagging and reiterating the importance of intellectual engagement alongside physical activism. While activists Naomi Klein (2014) and George Monbiot (2013) call for urgent action to avert global



catastrophe, Donna Haraway and Isabel Stengers emphasise the additional need to constantly rework questions and terminology (Stengers and Despret, 2014:51-58). The importance of thinking is repeated many times in recent feminist literature 'Think we must, we must think. That means, simply, we must change the story' (Haraway, 2016:40). Braidotti is more explicit:

'...the posthuman predicament enforces the necessity to think again and to think harder about the status of human subjectivity and the ethical relations, norms and values that may be worthy of the complexity of our times' (2016:13).

Speculative thinking from an artistic perspective contributes to meeting these obligations by combining active-art with active-thinking, keeping discussions alive, teasing out conflated arguments, opening new questions and considering imaginative solutions, thus moving beyond normative views of plants. Sympoietic art practice therefore includes thinking-with-plants as a creative, performative act, where performativity implies the active agency of all involved. Creative thinking means thinking the artist-plant relationship, thinking with the senses while making together-with plants, thinking while walking amongst plants, thinking with plants as they grow, and collective thinking during encounters with plants and materials. Artistic questioning guides thinking during these activities.

In this Chapter, knitting with couch grass not only guided me to adopt low-impact methods but also prompted ethical questions and considerations about working with plants. I have introduced methods and theoretical grounds for developing a sympoietic art practice with plants which prioritise ethical approaches of egalitarian, non-exploitative and ecologically situated practice. The attempt to work co-creatively with plants has presented obstacles, surprises and challenges which repeatedly push in new directions, activate imaginations and raise unforeseen ethical concerns. Sympoietic art processes provide anchorage for wide ranging, speculative discussion in later chapters in which I critically recount emergent discoveries and challenges. In the next chapter, entanglements of nature and culture come under scrutiny when I bury my arm in the ground and formulate the concept of plant de-coherence.

## CHAPTER 2

### **BRAVING THE CONCEPTUAL THICKET OF PLANT DE-COHERENCE**

Sympoietic practice-as-research has exposed multiple sources of interference which eclipse the fundamentally symbiotic relationship between plants and humans. When enacting sympoietic practice, I have at times felt caught up in a mesh of contradictions which already surround plants, an impenetrable thicket which impedes my human understanding of their vegetal nature. In this chapter, I impart some of the alarms and uncertainties encountered as I enter this conflictual zone as an artist to formulate the hypothesis of 'plant de-coherence' as a basis for exploring the dynamics which conceal and change plant-human relationalities. The performative work *Planting my Arm* (Charlston, 2018) forcefully draws attention to cultural pre-dispositions which obscure and deepen the impenetrability of plant subjectivity.

#### **I buried my arm: the shocking enormity of an empathetic gesture**

On a damp October afternoon, seeking connectivity with my pear tree's rootedness, I attempted to reduce my dominating role by burying my arm in the soil. To lie down among plants, renouncing movement altogether is a dramatic gesture of surrender. Plants impinge, tower, overshadow, block out, I am small. Trees have the power to bury me in falling leaves, bombard me with falling fruit or sprinkle petals over me depending on the season. If plants could move, being blind, they would surely trample me, as I with full sight trample them. I wanted to feel into the plant's world, its living place. I was thinking of fingertips as sensitive root tips reaching down into the soil. I wanted to 'think beyond the human' (Kohn, 2013:22). I wanted to extend an empathetic gesture towards the plants in my garden, richer and more profound than a retinal gaze. I wanted to meet the plants in their own ground, literally, half in soil and half out in the open air.

*The soil was cold and damp with autumnal smells when I made the first cut with a spade. Stones, twigs and wriggling creatures were unearthed. A few inches down, the soil was hard and dry and then a large rock and roots of the pear tree stopped me digging further. Over time, a plant would send threadlike filaments into cracks and spaces, but this was as far as I could go. Rotting pears, beetles, ants, decomposing leaves, worms, millipedes, leather jackets, woodlice, grubs, earwigs, slugs were alarmingly close to my face. Kneeling was not low enough, I had to lie down... My hand and arm gradually disappeared as I pushed soil over them. With my arm locked into the seething ground I felt more and more like a trapped human than an aspiring plant. I could not run away. The buried arm was cold. I imagined fingers turning white, then blue. After a while, the sensation changed, my hand was perhaps warm after all. I remembered that my fingers were touching the pear tree root. The pear tree rustled in the breeze. There was just a moment of connection, trust, sensitivity, plant affinity, coherence. I felt rooted to the ground through my fingers and in touch with the earth. Then a living thing moved against my fingertip. In panic, I wrenched my arm free and nursed the unfamiliar limb, ashamed of my recoil.*

Fragments from the proto-artist-book *Planting my Arm* (Charlston, 2018)



Figure 2.1 *Planting my Arm* (Charlston, 2018).

Left: 'Alarmingly close to my face'. Right: 'The unfamiliar limb'

Later, images of the event revived the shocking closeness of soil and slugs (Figure 2.1). I relived the visceral clawing at the earth by tearing holes in the pages of the artist-book *Planting My Arm* (Figure 2.2). The process of making the book, coordinating the fragments of writing, photographs and memories of the experience,

revealed an unexpected slant to the narrative. I initially thought that understanding the plant's world would strengthen my connectivity and that shared experiences would increase my empathy with plants. However, the artist-book told a different story in which plants played a very small part. When I wrenched my arm away from the ground in alarm, I performed a violent cut away from plants and ended a brief enactment of mycorrhizal connectivity in my over-hasty retreat from the soil. The 'agential cut' (Barad, 2003:815) made me into the subject and the pear tree into an object again. The humiliating experience was about myself, my feelings, my heightened awareness, which blocked out the plants.



Figure 2.2 Proto-artist-book *Planting my Arm* (Charlston, 2018).

Left: Front cover

Right: Centre-page spread

My clumsy attempt at becoming plant-like was part of a wider search for effective ways of reaching out to plants for co-creative practice. The opposite strategy of likening plants to humans is problematic for different reasons. Humanising statements, such as plants 'talk to each other',<sup>34</sup> 'eavesdrop' or 'call for help' appear to welcome plants into a closer kinship. However, casual comparisons are unlikely to engender empathetic bonds which

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<sup>34</sup> <https://www.theguardian.com/science/2018/may/02/plants-talk-to-each-other-through-their-roots> (accessed 04.04.19).

are beneficial to the plant. The underlying message of ‘a bit like us, but not as good’ keeps plants in their place as sub-human.<sup>35</sup> Additionally plants may be rendered figures of fun or an aggressive threat.<sup>36</sup> Plants are sensitive to stimuli<sup>37</sup> and capable of adapting to change over time (Mancuso and Viola, 2015:61, Kohn, 2013:82, Trewavas, 2015:117). However, to liken this potential sentience to human pain, pleasure or desire in the plants shuts down a deeper conceptual reaching out to the plants' world. While anthropomorphism may be unavoidable and even desirable as a step towards recognising ourselves in plants and thereby empathising with them (Bennett, 2010:99), in its eco-ethical endeavour, sympoietic practice stands accountable for complicity with distortions or denial of plant qualities. Yet again, imagination and fantasy can be powerful catalysts for artistic research and communication. *The Marsh Flower, a Sad Human Head* (Odilon Redon, 1885) is a surreal example, a mystical exploration distinct from factual education (Figure 2.3). The image depicts neither a plant with human attributes nor a human with plant attributes (or both, a hybrid), thus combining anthropomorphism and phytomorphism effectively.



Figure 2.3 *The Marsh Flower, a Sad Human Head* (Odilon Redon, 1885).<sup>38</sup>

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<sup>35</sup> Arguments that our attitudes will inevitably be anthropocentric are linked to arguments in favour of anthropomorphism in Soper (1995:13).

<sup>36</sup> The science fiction novel *The Day of the Triffids* (Wyndham, 1951) plays on our deep fear that plants could become mobile and aggressive.

<sup>37</sup> Opium in the poppy *papaver somniferum* and salicin in willow bark are two examples of painkillers present in plants which, I suggest, could indicate that plants feel pain.

<sup>38</sup> Figure 2.3 shows one of a set of six lithographs by Redon. Public domain image: [https://commons.wikimedia.org/wiki/File:The\\_Marsh\\_Flower,\\_a\\_Sad,\\_Human\\_Head,\\_Plate\\_2\\_from\\_Homage\\_to\\_Goya,\\_by\\_Odilon\\_Redon,\\_1885,\\_lithograph,\\_only\\_state\\_-\\_Montreal\\_Museum\\_of\\_Fine\\_Arts\\_-\\_Montreal,\\_Canada\\_-\\_DSC08902.jpg](https://commons.wikimedia.org/wiki/File:The_Marsh_Flower,_a_Sad,_Human_Head,_Plate_2_from_Homage_to_Goya,_by_Odilon_Redon,_1885,_lithograph,_only_state_-_Montreal_Museum_of_Fine_Arts_-_Montreal,_Canada_-_DSC08902.jpg) (accessed 16.07.19).

The experience of planting my arm in the soil revealed some of the obstacles to forming a warm, unproblematic friendship with plants. Sensing a fundamental separation between myself and the plants, I began to grow the concept of plant de-coherence to provide a basis for interrogating perceived and underlying relationships with plants. I mentioned in the introduction that both successes and failures have contributed to my research. As a case in point, the concept of plant de-coherence has taken shape from setbacks to my practice.

### **Plant de-coherence: a quantum leap through the thicket**

My deep engagement with plants has involved focussed attention and day-to-day physical and emotional closeness to plants, and yet plants remain mysterious and elusive. When walking-with-plants, I realised that my aesthetic experiences are not shared by the plants. At moments of mutual endeavour such as growing pomegranate seeds, the relevant language and representational imagery were already engaged in other cultural narratives about these plants, which intruded on my co-creative experience. Taken together, these barriers to reaching plants constitute something other than lack of attention. To address my recurring suspicions that something more complex than blindness or attention deficit impedes my co-creative relationship with plants, I developed the concept of 'plant de-coherence'.

One existing explanation for systematic exclusion of plants from the 'biopolitical frame' (Nealon, 2016:xi) and failure to notice plants, recognise their importance or to appreciate their aesthetic and unique features, is termed 'plant blindness' (Wandersee and Schussler, 1999, 2001, Schussler, 2017). Wandersee and Schussler conclude that plants remain unnoticed because the homogeneous green leaves merge into a familiar, sedentary backdrop so that they appear to be stationary, unresponsive and ubiquitous. Further manifestations of plant blindness include misunderstanding of plants' needs and failure to recognise the difference in our time scales. Concerned about widespread ignorance of basic plant science and lack of direct contact with plants, Wandersee and Schussler claim that people would make different decisions about conservation if they realised that plants are essential to our lives. In order to impact on conservation, these authors advocate teaching of basic plant science and providing plant experiences to encourage emotional connectivity and empathy with plants. At the outset of my

research, I might have enthusiastically supported the proffered positive, educational approach, however, sympoietic practice has given me pause for thought on two fronts.

Firstly, plants do not necessarily benefit from being physically seen. Invisibility is sometimes advantageous to plants. Going unnoticed could be counted as one of the many evolutionary adaptations that have helped plants to survive for millions of years. By blending together to form a scenic background, they are less likely to be vandalised, dug up, removed, eaten or coveted. Being inconspicuous could possibly be a defence mechanism for plants as effective as spikes, thorns or stinging leaves. There is an aggressive antipathy towards plants when they impose their plant presence without human permission. 'Synanthropic' plants which thrive near and with humans are regarded as intrusive weeds to be eradicated with herbicides, for example, *buddleia* and *rosebay willow herb* in urban settings, *ragwort* in managed farmland and *dandelions* in gardens. While the plants are clearly taking advantage of the living conditions created by humans, it is possible to imagine that dandelions grow in gardens and roadsides to be close to humans.

Secondly, 'empathising' with plants is problematic and difficult to teach, especially if it is facilitated by attempts to make plants seem more human. For example, likening the transpiration of water to tears engenders emotional empathy on false grounds.<sup>39</sup> It is useful to take into account Paul Bloom's argument that rational compassion is a more reliable source of unbiased moral guidance than empathy, which tends to prioritise lovable organisms (2016:30-35). Braidotti's posthuman vision of multiple accountabilities provides a nuanced approach:

'...one needs at least some subject position: this need not be either unitary or exclusively anthropocentric, but it must be the site for political and ethical accountability, for collective imaginaries and shared aspirations' (Braidotti, 2013:102).

Unintentional misuse of anthropomorphism in pursuit of empathy serves as a warning to the educational remit of plant blindness, to eco-activists and to my developing sympoietic art practice. In line with posthumanism, sympoietic art practice seeks to broaden and reframe ethical horizons and to embrace differences between species rather than looking for human attributes as a normalising feature (Wolfe, 2010).<sup>40</sup>

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<sup>39</sup> The example was found at [www.bbc.co.uk/guides/zxjqw6f](http://www.bbc.co.uk/guides/zxjqw6f) (accessed 01.04.19).

<sup>40</sup> Wolfe summarises his densely argued thesis in a short video available at: <https://www.youtube.com/watch?v=5NN427KBZII> (accessed 16.07.19).

Plant blindness has captured popular imagination and inspired articles and practical activities which counter disregard of plants.<sup>41</sup> It has also been taken up by researchers from a range of disciplines. A cross-disciplinary research project, funded by the Swedish Research Council<sup>42</sup> included a collaborative artists' project, *Searching for Stipa* (Snæbjörnsdóttir and Wilson, 2018).<sup>43</sup> The work powerfully brings attention to the structural complexity of a grass seed, visualised by a scanning electron microscope and brought to life in a fourteen-metre tapestry, suggesting that well-informed artists may inspire an interest in plants more readily than factual education.

Regardless of knowledge about plants, my attempt to work with plants as co-creative partners has revealed multiple cultural norms which obstruct understanding and work against the acceptance of plants as co-habitants, for example, inadvertent aesthetic and symbolic impositions. Further, it is problematic to approach plants as co-habitants when instrumental uses are prioritised. Plants may be avoided because of 'Western intellectual or metaphysical allergy to complexities of plant life' (Marder, 2015),<sup>44</sup> or obscured by 'a kind of semiotic maelstrom' in cities (Hoffmeyer, 1996:143). Plants are eclipsed by the inferiority which has been imposed on them through patriarchal hierarchies (Merchant, 2003:68). We may even feel rejected by the 'crushing indifference' of the plants themselves (Nealon, 2016:74). As a sympoietic artist, my relationship with plants is embedded in these concerns.

Diverging from the theory of plant blindness, I argue that a non-exploitative relationship with plants depends on more than simply seeing plants or not seeing them. I suggest that, while knowing about plants and noticing them encourages greater appreciation of plants and may lead to more responsible behaviour towards plants, a profound conceptual shift is also called for. The proposed de-coherence effects interfere with relationships in the fertile, mobile interface with plants. The exciting effects of plant de-coherence materialise in this transitional, high contrast space where relational

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<sup>41</sup> A BBC article by Christine Ro, April 2019, links plant blindness with nature deficit disorder. Available: <http://www.bbc.com/future/story/20190425-plant-blindness-what-we-lose-with-nature-deficit-disorder> (accessed 29.06.19).

<sup>42</sup> *Beyond Plant Blindness: Seeing the importance of plants for a sustainable world*, 2015-2017 was co-ordinated by Dawn Sanders.

<sup>43</sup> The collaborative artists' project was presented at the Symposium *Beyond Plant Blindness: Where can a single plant take you?* November 2018 at the University of Gothenburg. Available: <https://snaebjornsdottirwilson.com/category/projects/beyond-plant-blindness/> (accessed 23.06.19).

<sup>44</sup> Quoted from the video *How to Breathe and Feel with Plants*, Michael Marder, 2015. Available: <https://m.youtube.com/watch?v=iSgepDOWw3g> (accessed 03.04.19).



exchanges are played out. While this thesis develops and discusses the effects of plant de-coherence in art, it is possible to imagine that a form of de-coherence could also manifest in transitions between cultures, species, time frames, persons.

The term de-coherence originates in scientific quantum theory. I was excited by a description of 'quantum decoherence'<sup>45</sup> in which the wave behaviours of super-fast sub-atomic particles such as electrons are lost in the din and jostling of our slower 'normal' world (Al-Khalili and Mcfadden, 2015:164). The activity of an electron within an atom is said to have 'quantum coherence' when it can be explained mathematically as a wave. However, when an electron interacts with the slower, 'normal' world, the wave behaviour changes. The resulting 'wave-function collapse' is described as 'quantum decoherence'.

Al-Khalili and Mc Fadden use an imaginative analogy of ripples on the surface of water to describe the scientific theory of quantum decoherence. I spent a day throwing pebbles into a pond to help me understand what they could mean and how this might be relevant to plant de-coherence (Figure 2.4). Then I began to look beyond the surface of the water at the reflections of the trees. The following text fragment from my notes shows how these actions suggested a way of conceptualising plant de-coherence as a distortion or interference with plant signals.



Figure 2.4      *'...the perfect reflections of trees began to dance and wobble'.*

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<sup>45</sup> Note there is no hyphen in the quantum phenomenon 'decoherence'. I have introduced the hyphen in plant de-coherence to distinguish between the two terms and for ease of reading comprehension.

*Metaphor for quantum decoherence:*

*'Plop'. Perfect concentric ripples radiate outwards across the surface of the still pool and gradually subside. If I had thrown the pebble into turbulent water instead, I would not have heard the plop of the pebble or seen the ripples. They would be lost in disturbances from louder sounds and disorganised movement.*

*Metaphor for plant de-coherence:*

*'Plop'. Perfect concentric ripples radiate outwards across the surface of the still pool and gradually subside. I watched as the perfect reflections of trees began to dance and wobble. My view of the trees was distorted by the surface ripples.*

(Fragment, Charlston, 2017)

While explanations of quantum decoherence tend to be heavy with mathematical formulae, Schlosshauer's introduction is more discursive. He explains that quantum decoherence takes place during transitions from the quantum world to the classical (everyday) world (Schlosshauer, 2007:1-12). By analogy, I am suggesting that plant de-coherence takes place during transitions from living plants to the human perception of plants. Just as quantum entanglements are broken in the transition from the hyper small and fast quantum scale to the slower, more solid normal frame, coherent plant utterances are scattered by the clamour of human activity and become entangled with cultural associations. Thus, plant de-coherence effects might account for distortion of our understanding of plants and help to explain the seeming impossibility of approaching an 'intrinsic' plant.

Adapting terms such as 'de-coherence' from quantum theory to tease out ideas around plant-people relationships is justifiable on several fronts. Quantum physics terminology such as entanglement, diffractive reading and intra-action have been applied effectively to mobilise new materialist theories in which the human subject is less central and more attentive to entanglements with the world (Barad, 2007)<sup>46</sup>. Furthermore, photosynthesis, a quintessential plant activity, is driven by quantum processes (Al-Khalili

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<sup>46</sup> Karen Barad's carefully argued philosophy of dynamic matter, is founded in Spinoza's monism <https://www.iep.utm.edu/spinoz-m/> (accessed 26.06.19) and supported by quantum physics. Concepts include 'agential realism', 'posthuman performativity' 'onto-epistemology' and 'narrative agency'. See also Iovino and Opperman (2014:28-35).

and Mcfadden, 2015:181).<sup>47</sup> That life and matter are driven by quantum processes is a material phenomenon fundamental to existence and relevant to everyone, not exclusively scientists. But quantum behaviour (like plant behaviour) does not match everyday experience. It is counter-intuitive<sup>48</sup> and hard to think about, offering intellectually stimulating opportunities for creative speculation, artistic imagination and playful metaphor. Figure 2.5 provides a further visual impression of de-coherence when plant-life is interrupted by cultural intrusion. The brambles are squeezed between human detritus and metal fencing which holds back growth. Interference is accentuated when the wire mesh mimics but brings orderliness to the chaotic crossings of plant stems. Sympoietic art practice offers glimpses through the thicket of de-coherence.



Figure 2.5 Brambles are squeezed between human detritus and metal fencing.

Exploring the effects of de-coherence in co-creative practice furthers understanding of the plant-artist relationship. In the interactive, performative artwork *Plant Generator* (Charlston, 2019), participants create permutations of plant material or vegetable peelings by manually operating the kaleidoscope structure, which is mounted inside a plinth. With patterns changing continually as the viewer tilts the eyepiece, repeated reflections and patterns render the original plant arrangement almost indistinguishable

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<sup>47</sup> The quantum nature of photosynthesis is filed as 'scientific knowledge'. As such, it is routinely channelled towards economic gain, but is less often fully assimilated by cultural humanities.

<sup>48</sup> For example quantum superposition, wave-particle duality and particle entanglement effects which operate across wide distances are not intuitive.

from its fragmented reflections (Figure 2.6). While the artwork brings participants into direct tactile and visual contact with plants, it is also a source of de-coherence, potentially changing the way plants are represented and perceived. When I look into the kaleidoscope, I wonder why these mediated images seem more fascinating than the plants themselves. The urge to be creative seems to impel me to interfere with the plant's nature. In actively pursuing a co-creative relationship I must be sensitive to these possible sources of domination and de-coherence in my intentions.



Figure 2.6 *Plant Generator (Charlston, 2019).*

Sympoietic art practice works with plants in the here-and-now, plants already affected by and continually changed by multiple sources of de-coherence. Artists can undertake to counter sources of de-coherence which obscure ecological relationships with plants or those which assert human dominance to the detriment of plants. Additionally, it is possible to work towards a more coherent relationship with plants, one in which equitable co-habitation and life dependent symbiotic entanglements are recognised, such as the astounding reciprocal processes of photosynthesis and respiration which have maintained levels of gases in the atmosphere such that life has flourished for millions of years.

The film *The Martian* (Scott, 2015) portrays a developing relationship with a plant which emphasises human dependence. A lone astronaut is stranded on Mars with little hope of rescue. Forced to face his dependence on plants, he tries to extend his food supply by working out how to grow some vacuum-packed potatoes. When a potato plant eventually breaks through, he is so delighted and relieved that he speaks to it, 'Hey there!' His recognition of the plant is echoed at the end of the film when, back on Earth, he looks down and greets another plant as a friend, 'Hey there!' His experience on Mars, working with the potatoes for mutual survival, watching for signs of stress, rejoicing in signs of flourishing, changed his relationship with plants and created the lasting ecosemiotic bonds which strengthen a coherent relationship. Sympoietic art practice with plants undertakes to cultivate this kind of shared knowledge of mutual destinies, which is perhaps the closest we can get to plant coherence.

### **Co-creative transformations of nature and culture**

Sources of plant de-coherence in art practice, including representation and symbolism are discussed in the remaining chapters in which four different manifestations of sympoietic practice are analysed. At this point I want to unpick and problematise current affirmative attempts to resolve the discordant nature-culture binary which continues to drive the cycle of de-coherence. Interpretations emphasising that human life is not categorically distinct from other organisms offer a powerful alternative to the all-pervading influence of a narrowly human-centric worldview in which plants play an inferior role. A 'nature-culture continuum' is proposed whereby diversity and differences are accepted without hierarchical ranking (Massumi, 2002:11, Braidotti, 2013:65). But how can we envisage this continuum? Massumi refers to the 'nature end of the continuum' (2002:11-14), suggesting that nature and culture exist as separate, identifiable endpoints. What are the gradings of nature-culture mixes in between? If it is like mixing tones, grading between black and white, what are the greys of nature and culture? Does the continuum work as a smooth change? Do nature and culture remain recognisable when they merge? Massumi states: 'Nature and culture are in a mutual movement in and through each other. Their continuum is a dynamic unity of reciprocal variation' (2002:11). By analogy, I visualise people mingling, forming groups, separating and regrouping in different combinations, but remaining recognisable as individuals. Yet again, Massumi describes nature and culture 'feeding back and feeding forward', which

suggests directional shifts, perhaps across a porous or indistinct border. Wendy Wheeler proposes a model based on complex adaptive systems in which nature and culture are 'inextricably intertwined and co-dependent and co-evolving' (2006:41). Humans *are* natural, human culture *is* natural. Wheeler's synthesis of nature and culture is reminiscent of Haraway's 'naturecultures' (2003:3), in which no endpoints of pure nature and pure culture are implied.

These ideas blur sharp separations and remain alive with possible interpretations and artistic speculations about plants. In the ephemeral work *Nature/Culture imperfect continuum* (Charlston, 2019), I placed the petals of a wilting rose one by one on a sheet of paper. In doing so, I noticed a continuum of size. When revisiting photographs of the transient event, less obvious continua became apparent. A continuum from outer to inner petals, a colour continuum from light to darker and of shape from broad and smooth to narrow and crumpled (Figure 2.7). My eye is drawn to the heart shapes and smiley emojis hidden in the petals, signalling my spontaneous symbolic appropriation of the rose. Each step I took as an artist added another cultural dimension to rose. While the transitory character of the work prevented locking these values into an artefact, subsequent representations generate further plant de-coherence.



Figure 2.7 *Nature/culture imperfect continuum* (Charlston, 2019).

By contrast with relational and synthesising models of nature and culture, technology and corporate appropriation can be seen as acting forcibly to un-twine the co-emergence of nature and culture. Environmental sceptics separate human life from nature 'We are not "natural" creatures' (Thornton, 2014).<sup>49</sup> Thornton holds privileged human freedom and moral duty to each other in opposition to the passive determinism of nature. His views are, perhaps unintentionally, supported by Anthony Trewavas who, in spite of his detailed discussion of plant intelligence, ultimately strengthens hierarchical anthropocentrism:

'...respect should be shown to many members of the plant kingdom, but remembering all the time, 'respect yourself first'...some may misinterpret notions of plant intelligence to try to justify placing plants as necessitating a legal protection accorded to higher mammals' (Trewavas, 2015:1).

Practical suggestions for improving human relationships with nature range from Isis Brook's support for accessible, nearby nature, as it is, to George Monbiot's manifesto for rewilding. Monbiot proposes an end to farm subsidies, followed by radical action to achieve a reversal to a more natural ecological state:

'...reintroducing missing animals and plants and taking down fences, blocking the drainage ditches, culling a few particularly invasive exotic species but otherwise standing back' (Monbiot, 2013).<sup>50</sup>

Monbiot claims that he is hereby 'abandoning the biblical doctrine of domination' yet this is only apparent in his final 'standing back'. Views on rewilding are diverse and controversial.<sup>51</sup> On the one hand, present-day habitats may be damaged and existing connectivity devalued in the desire to return to an earlier unspoiled state (Uggla, 2010:85), on the other hand, disconnection from wild nature arguably leads to an impoverished world (Brady, 2006, Shiva, 2013:232, Klein, 2014:2).<sup>52</sup>

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<sup>49</sup> Available at <https://www.frontpagemag.com/fpm/218435/costs-environmentalism-cult-bruce-thornton> (accessed 05.05.19).

<sup>50</sup> Available at: [www.monbiot.com/2013/05/27/a-manifesto-for-rewilding-the-world/](http://www.monbiot.com/2013/05/27/a-manifesto-for-rewilding-the-world/) (Accessed 07.04 2019).

<sup>51</sup> TV presenter Chris Packham recently received death threats because of his move to protect birds which feed on crops and smaller birds' eggs <https://www.independent.co.uk/news/uk/politics/bird-shooting-ban-michael-gove-natural-england-chris-packham-a8899526.html> (accessed 05.05.19).

<sup>52</sup> Richard Louv coined the term 'nature deficit disorder' to describe problems resulting from modern lifestyles disconnected from nature in the bestseller *Last Child in the Woods* (2005).

Layers of contradictory narratives are not problematic for sympoietic art practice. Sympoiesis is collective and adaptive, allowing participants (human and non-human) to become immersed in complex, co-creative processes across time, which respond to ongoing situations. Processes of growing-with-plants, walking in company, drawing, writing and making artist-books, have convinced me that there is no fixed or final 'position' in naturecultures or artist-plant relationality. Plant de-coherence effects are also mobile and unpredictable. In the next chapter, I encounter the effects of plant de-coherence as I trace changes in my practice during the process of adapting to the requirements of co-creative making together-with plants.



## CHAPTER 3

### MAKING-WITH-PLANTS

#### Feeling in touch

The book as an art form offers opportunities for multiple modes of embodied communication which evolve over time. When the haptic<sup>53</sup> and temporal aspects of an artist-book are enacted alongside growing plants, a dynamic interplay between the concepts of organism and artefact is activated. Activities of extracting seeds from dry seed-casings, folding and unfolding damp tissue around them and re-earthing them in soil resonate with handling and touching processes of making artist-books. Enfolding, smoothing, placing, turning materials in the hand, are sensitive touchings whether the material is living or non-living. Tactile prompts afforded by turning pages initiate a journey of exploration and interpretation which reiterates the mutual touching between plant and artist. Feeling edges, manipulating hinges, directing pace add 'handle' and texture to the repertoire of indexicality.

The five-minute video *Grow Make Read (Charlston, 2016)*<sup>54</sup> reveals patterns which connect processes of growing and making through a series of impromptu clips. The handling of plants and books in the video, gives voice to the handling of ideas (Bolt, 2007:693). The video was made by propping the iPad to focus on my hands as I worked. In the edited video, the haptic activity of making a prototype artist-book re-enacts the activity of handling and touching plants. Making books is portrayed as a growing of materials and ideas analogous to growing seeds. Thought sequences, sign recognition, tactile responses and gestures blur the boundaries that distinguish growing from making. In the video, the proto-artist-book *Feeling in Touch (2016)* is turned in the hand

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<sup>53</sup> The term 'haptics' has become almost synonymous with haptic technology 'Haptics...is the science of applying touch (tactile) sensation and control to interaction with computer applications'. In this thesis 'haptic' applies to handling plants and books. <https://whatis.techtarget.com/definition/haptics> (accessed 04.03.19).

<sup>54</sup> Available at <https://vimeo.com/216289033> (accessed 27.10.19).

and read from different angles just as a plant would be examined (Figure 3.1). Isolated words evoke haptic actions and sounds – bend, scrape, tear, feel. The slight rustle made by a tissue-paper lining mimics the sounds of a drying seed case.

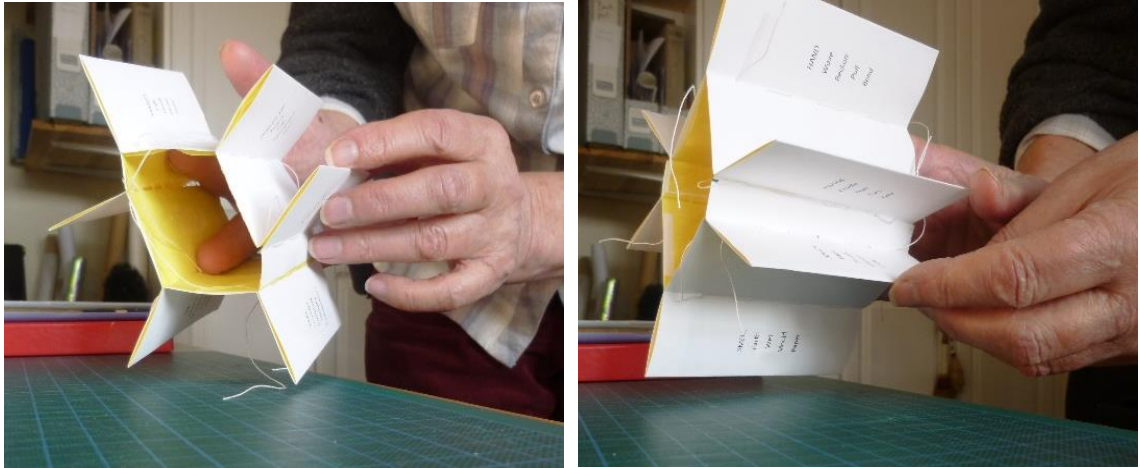


Figure 3.1 *Feeling in Touch*, from the video *Grow Make Read* (Charlston, 2016).

While the hand-held book reduces the gulf that exists between the viewer and purely retinal art, the intimacy of physical engagement with the book is less helpful in plant-human relationships if there is a lack of contact with plants. The quest for sympoiesis has led me to change my approach to book-arts. My multidisciplinary conceptual approach, informed by a background in science education, already claimed a generous licence to extend the form, but co-creativity with plants necessitates plant presence and continual renewal of the conditions which allow the plant's voice to break through. The artist-book has become an exploratory research method for me, whereby ideas and speculations are developed. Many of my books remain as 'proto-artist-books', that is, unrefined stages in the art-making process, in which plant experiences are fresh rather than distanced by repeated processing.

Broadly speaking, while undertaking practice-as-research, my aim has shifted from the final stages of production and editing towards contingent books embedded in participatory experiences, ongoing situations and changing relationships. I have become more aware of how pre-existing situations change during and after my artistic engagement with plants. The interchange of growing and making is constantly at play when the artist-book is a performative practice of interrelations rather than an object

of production. The next section traces changes to my book-arts practice in response to the new context of sympoietic commitments. I map the metamorphosis of my practice against the genealogy of the artist-book to show intersections with ecological art which enhance the potential of the book form for sympoietic, collective, engagements with plants.

### **The artist-book, autonomous or contingent?**

Looking back, the MA Book-Arts Show at Camberwell College of Arts in 2000 included installation, film, wall and floor text, sculpture, textile books and audience generated books as well as ten of my bookworks, which were not confined to page and print.<sup>55</sup> The artist-book was construed as a conceptual 'metabook' which plays upon 'bookness'. Any surface served as a metaphorical page.<sup>56</sup> The urge to question and communicate, was the driving force, thus decoration and excessive crafting was considered gratuitous.<sup>57</sup> We were encouraged to draw on the rich history of communication (Diringer, 1982): scrolls, fans, tablets, notched sticks, cave walls, smoke signals and more were included in the domain of book. Similarly, literary styles, worked together to expand ideas and tell inventive narratives.

The progressive approach at Camberwell nevertheless retained a portrayal of the artist-book, established in the 1960s, as a cheap and readily available 'democratic multiple' (Phillpot, 2013 48). The artist-book was regarded as an 'autonomous artwork' conceived by the artist as a bookwork rather than serving as a container for other artwork such as photographs (Moeglin-Delcroix, 2016:41). Visual and conceptual wholeness was valued over the book as an object. In the 'whole book', all the elements of the book work together to articulate a concept. Both the 'autonomy' and 'wholeness' of an artwork come under scrutiny in this thesis. While I appreciate autonomy in art as freedom of expression and independence from market pressures, I will argue that co-dependency

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<sup>55</sup> The considered minimalism of course-leader Susan Johanknecht and the boundary-breaking, experimental approach of tutor Les Bicknell provided creative momentum while critique from visiting tutors Helen Douglas and Sharon Kivland centred on the visual and conceptual wholeness of the artist-book. Parameters of book-art were articulated mainly by Clive Phillpot, Stephen Bury (curator of the Modern Special Collection at the British Library in 2000) and by purchasing policies of institutions such as Tate Britain and The National Art Library at V&A.

<sup>56</sup> I visited a screening of Xu Bing's *Cultural Animal* (1994) at Ikon Gallery, Birmingham in 2000, a striking example in which bodies serve as pages. The illegibility of false Chinese characters painted on a manikin and a live pig accentuated their inability to communicate by means of language.

<sup>57</sup> The creative freedom and minimalism fostered in the Camberwell book-arts scene in 2000, resulted in a (temporary) decline in traditional crafts of bookbinding and letterpress in 'fine press' publications.

and co-operation take precedence in sympoietic practice. Thus, the strictly autonomous 'whole book' is abandoned in favour of a more mutable 'organic book' which might appear at stages during a co-creative process.

There are two recognisable book-art traditions. Contemporary 'fine-press' books originated in the publisher-led deluxe tradition of *livres d'artistes* of the 1890s, which promoted the work of famous artists and poets (Hogben, 1985:9).<sup>58</sup> Today's fine-press books feature traditional letterpress printing, original prints on lush paper or illustrated poetry<sup>59</sup>. By contrast, many avant-garde artists in the early 20<sup>th</sup> century self-published unconventional manifestos and collaborations (Drucker, 2004:8),<sup>60</sup> characterised by typographic innovation<sup>61</sup> anti-aesthetic presentation, and resistance to high art, consumerism and bourgeois society (Bury, 2007). Russian Futurists Goncharova, Malevich and others made rough, hand-written books<sup>62</sup> in keeping with their manifesto *A Slap in the Face of Public Taste*: 'This work radically conceptualizes the book as an artistic form, not a publishing enterprise, not a fine press production, not a portfolio of prints, but a new hybrid form without rules or limits' (Drucker, 2004:50).

The artist-book genre began with Pop Artists and Conceptual Artists of the mid-20<sup>th</sup> century, seen in the work of Sol LeWitt, John Cage, Fluxus mail art, Dieter Roth and Ed Ruscha (Drucker, 2004:75, Turner, 1993:5). Clive Phillpot hailed Ruscha's *Twenty Six Gasoline Stations* (1963) as germinal on two counts: the integrity of the whole book as autonomous artwork (rather than a container for literary or visual expression), and the cheap availability of the 'democratic multiple' (2013:96).<sup>63</sup> As director of the library at

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<sup>58</sup> *Jazz* (Matisse 1947) is a late example published by Tériade.

Source: <http://museum.cornell.edu/exhibitions/matisse-s-jazz.html> (accessed 04.07.2019).

<sup>59</sup> Private presses in the fine-press tradition were often established by artists, (*Circle Press*, Ron King) <http://www.circlepress.com/history/index.html> (accessed 25.06.19).

<sup>60</sup> For example, books were made by Marinetti, Apollinaire, Ernst and Isou.

<sup>61</sup> *Ursonate* (Schwitters, 1922) ignored grammatical and typographical conventions to increase the expressive power of the written and spoken word. A recording of *Ursonate* can be heard at: <https://uk.video.search.yahoo.com/search/video?fr=mcafee&p=shwitters+ursonate#id=1&vid=c07bdbdca03a50b7bad6e3d224e52df7&action=click> (accessed 04.04.19).

<sup>62</sup> See 'The Collaborative, Interactive Book Art of the Russian Futurists' at <http://blogs.getty.edu/iris/the-collaborative-interactive-book-art-of-the-russian-futurists/> (accessed 04.06.19).

<sup>63</sup> *Twentysix Gasoline Stations*, 1963. First Edition of 400 sold originally for \$3 a copy: <https://www.tate.org.uk/about-us/projects/transforming-artist-books/summaries/edward-ruscha-twentysix-gasoline-stations-1963> (accessed 05.04.19). Paradoxically. Photographs from the book are now sold separately. The first edition sells for up to £14, 000 at: <https://www.abebooks.co.uk/book-search/title/twentysix-gasoline-stations/author/ruscha/first-edition/> (accessed 05.10.19). Phillpot's claims about Ruscha's democratic status were contested by Professor Anne Moeglin Delcroix at a conference 'Artists Publications and the Legacy of Sol LeWitt' (08.05.10) organised by Sheffield Hallam University in collaboration with Site Gallery, Sheffield. A podcast of the conference is available at:

MoMA New York, 1977-2010, Phillpot influenced the reception of artist-books by the art world.<sup>64</sup> His collected essays evidence his consistent confining of the genre to exclude: 'the handmade book as craft object, the limited edition or unique - and often expensive - livre d'artiste, indeed most of the work previously denoted by 'the art of the book'' (2013:48). He dismissed fine-press limited editions and handmade books as 'lurid and ostentatious' (2013:160). Phillpot promoted the work of a number of artists but excluded others. He wrote of the 1960s 'Despite my best efforts I was not able to find women artists whose work fitted my criteria' (2013:154).

While Lucy Lippard values the potential for hybrid narrative, she shares Phillpot's vision of the cheap, widely accessible democratic multiple (Lippard, 1993a:48).<sup>65</sup> Lippard, however, identifies tensions between popular commercialisation and artistic integrity, noting that promoting the artist-book as a cheap commodity endangers critical edge (1993b:50). Scrap-booking and decorated books engender an anti-intellectual aura around the form giving substance to Lippard's concerns. Recently, the widespread inclusion of 'publications' as an extension of most art practice, has weakened the case for book-art as a fine art practice in its own right.<sup>66</sup> In the attempt to preserve its specialist status, the artist-book is in danger of being arrested as a historical genre of the 60s/70s Pop-Art era,<sup>67</sup> The, often essentialist, defining of the artist-book by what it *is* rather than what it can *do* overlooks the aspects I most value in book-art: experimental development, sequential, revelatory and haptic opportunities for communication, and the capacity to share ambiguity, nuance and emotion in direct exchange with audiences.

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<https://www.sitegallery.org/exhibition/sol-lewitt-5/#content> (accessed 26.05.19).

<sup>64</sup> Phillpot worked closely with *Printed Matter* a non-profit organization dedicated to the dissemination, understanding and appreciation of artist-books through sales, exhibitions and book fairs. Printed Matter was established by feminist art historian and theorist Lucy Lippard with Sol LeWitt, in 1976.

[http://printedmatter.org/what we do/history](http://printedmatter.org/what_we_do/history) (accessed 02.03.19).

<sup>65</sup> This vision continues in present-day policy at *Printed Matter*: 'We are looking for artists' publications that are democratically available, inexpensive and produced in large or open editions rather than limited editions or unique books' <https://www.printedmatter.org/services/submit-your-book> (accessed 05.03.19).

<sup>66</sup> At the Royal College of Art Show 2019, printmaking students condensed the concepts of their work into small artist books.

<sup>67</sup> The suspension of the MA Books Arts programme at Camberwell for 2019/20 supports these misgivings. <https://www.arts.ac.uk/subjects/fine-art/postgraduate/ma-visual-arts-book-arts-camberwell> (accessed 07.07.19).

## Growing with the ecological book: participation and activism

My urge to develop, make-with and grow-with the conceptual book in my work with plants, led me to probe its capacities as a sympoietic art form and to look for intersections with other approaches. The theoretical bases and practices in ecological art when combined with book-art, offered participatory ways forward for sympoietic practice. My turn towards ecological art builds on intersections between book-art and ecological art which already existed in my practice and elsewhere.

I began to see the potential in a participatory approach to book-art practice when I worked collaboratively with five artists on an ecological project in 2011. We were responding to a crumbling peat bog in the Welsh Black Mountains,<sup>68</sup> already the site of restorationist art.<sup>69</sup> The striking change from my usual approach was the sharing of knowledge and the intensity of collective effort to understand the multiple processes at work in the desolate place. My contributions to the project resulted from four arduous walks up the mountainside with other artists. My artist-book *Fragment by Fragment (2011)*<sup>70</sup> does not look substantially different from previous work. However, the artistic journey was more engaged, ecologically situated and enriched by the collective experience.

Ecological activist artist Basia Irland,<sup>71</sup> puts egalitarian art into practice in her worldwide series *Ice Receding/Books Reseeding* when she publicly places books carved from frozen river water into fast flowing rivers. The ice is embedded with local seeds which disperse to re-vegetate riverbanks as the ice melts. These participatory encounters not only reach out to communities in public projects but also necessitate ecological situatedness and ethical considerations. Community book-art projects are increasing,<sup>72</sup> however, these lie uncomfortably with the artist-book as a genre. Ed Ruscha, pioneer of the artist-book,

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<sup>68</sup> The project was led by artist Pip Woolf and funded by Arts Council of Wales. The culminating exhibition, *Bog Mawnog*, was shown at Brecknock Museum and Art Gallery (19 July-10 Sept 2011).

<sup>69</sup> Available <https://woollenline.wordpress.com> (accessed 07.07.19). Pip Woolf's *Woollen Line* was shortlisted for the John Ruskin Prize 2019, *Agent of Change*: [https://ruskinprize.co.uk/prize-finalists-2019?mc\\_cid=fe41c30ea6&mc\\_eid=73e824547b](https://ruskinprize.co.uk/prize-finalists-2019?mc_cid=fe41c30ea6&mc_eid=73e824547b) (accessed 07.07.19).

<sup>70</sup> *Fragment by Fragment* (edition of 50 copies) has been purchased by eighteen public collections including Tate Britain, Yale Center for British Art, UCLA Santa Barbara and Carnegie Mellon University. A critique of *Fragment by Fragment* by Emily Tipps, Books Arts Program Manager at the University of Utah, can be found at <https://www.collegebookart.org/bookarttheory/6976919> (accessed 15.10.19).

<sup>71</sup> Basia Irland participated in screenings at Whitworth Art Gallery, Manchester in November 2015.

<sup>72</sup> Discussed in *Reading Participatory Book Art: Establishing New Dialogues*, PhD thesis, (Gemma Meek, 2019).

claims that his work has 'No real agenda or message or point of connection for anybody' (Ruscha, 2013). By contrast, ecological artists share a common agenda and are generally well informed through online discussion groups and websites.<sup>73</sup>

Having established that embracing participatory aspects of ecological art enhances opportunities for wide participation in book-art, freeing the artist-book from its stance of isolation envisaged by Phillipot's sense of the autonomous, conceptually whole book, it is useful to look briefly at the sympoietic potential in different forms of ecological art. Land-art (Alfrey et al., 2012, Weintraub, 2012:11-14), a proto-ecological art form originating in the 1960s works with and in the landscape, using but not exhausting, natural materials. However, rather than celebrating landscape and natural materials, sympoietic practice seeks to build co-creative relationships with plants which can be carried through to everyday situations. Three phases of ecological thought have influenced ecological art (Demos, 2016:38-62): *Fragile ecologies* (Carson, 2000[1962], Meadows et al., 2005[1972]), *systems ecology* (Bateson, 1972), and *political ecology* (Latour, 2004, Alaimo, 2016).<sup>74</sup>

The political message in ecological art is changing and gaining strength in light of recent mass demonstrations and demands for urgent radical action.<sup>75</sup> Pressure for sustainable practice has been a strong political message in the arts. However, neoliberal 'greenwashing' in the name of sustainability<sup>76</sup> necessitates new, approaches (Braidotti, 2013:138, Alaimo, 2016:Loc 3141). The politicising of ecological art is evident in legacy projects when originally restorationist work is re-enacted with a more political message. Agnes Denes' *Wheatfield – A Confrontation* (1982) was a planting of two acres of wheat in an urban landfill in Manhattan. Her restorationist message was further politicised in

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<sup>73</sup> For example, artist Avivi Rahmani co-founded *Eco-Art Dialog* one of many groups for sharing ideas, resources and news to further the understanding of ecological art. Rahmani has undertaken ambitious environmental restoration projects in collaboration with scientists and planners.

<sup>74</sup> Artists such as Michelle Stuart and 'The Harrisons', have responded to the natural environment over several decades, making such distinctions irrelevant. However, it is possible to recognise the systems approach and also the eco-aesthetic of *fragile ecologies*, which is characterised by restorationist interventions (Harrison and Harrison, 2016:22, 302).

<sup>75</sup> The pressure group Extinction Rebellion has widespread support in declaring a climate emergency <https://www.bbc.co.uk/news/newsbeat-47570654> (accessed 20.06.19). The UN Climate Action Summit 2019, Paris urges radical action to reduce carbon emissions <https://www.un.org/en/climatechange/un-climate-summit-2019.shtml> (accessed 12.05.19).

<sup>76</sup> 'Greenwashing' is exemplified by palm oil plantations certified as sustainable but nevertheless sometimes more damaging than ever. <https://www.independent.co.uk/news/world/asia/palm-oil-sustainable-certified-plantations-orangutans-indonesia-southeast-asia-greenwashing-purdue-a8674681.html> (accessed 04.04.19).

2015 when Denes explicitly referred to a 'sharing economy' by planting twelve acres of wheat in the business district of Milan.<sup>77</sup> While the literature around fragile ecologies and systems ecology is relevant to my research, sympoietic practice is more concerned with contemporary political ecology which goes beyond restoration and sustainability to examine underlying attitudes. Such attitudes influence future relationships with the environment and therefore with plants. (Alaimo, 2016, Latour, 2004).

Performative eco-activist interventions can reach out in several directions to provoke change. In a merging of book-art and ecological art, I placed a targeted sign, 'WILDFLOWER AREA', on a roadside verge which is regularly cut or sprayed with herbicide in spring (Figure 3.2). This action of positive support for the plants confirmed my connection with them. Additionally, members of the unseen, and largely opportunistic audience heeded the message and left this small part of the verge untouched. Emboldened by the success of the artwork, I contacted the local council to negotiate other wildflower areas.



Figure 3.2 Intervention, *Wildflower Area* (Charlston, 2018).

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<sup>77</sup> *Universal Expo 2015*. Denes received the 2015 Guggenheim Fellowship in Fine Art for this and two further works.



## Multimodal assemblages

The study of non-linguistic, natural signs (see ecosemiotics pages 99-100) helped me to question plant relationships and understand plant signals when walking-with-plants. Making artist-books requires a different, socially aligned, sometimes linguistic approach to communication. The social-semiotic resources of multimodality (Kress, 2010:57) bring a repertoire of textual, linguistic, aural, spatial, poetic, visual and haptic resources into practice. Kress sees these strategies as powerful modes of communication which can be utilised consciously, for example, in advertising (Kress, 2010:92). In the less manipulative context of the artist-book, the interplay of multiple modes of communication maximises creative opportunity for investigation as well as expression. All the elements of the book are interpretive resources for the artist and the reader. Even a blank book is never neutral, the reader may recognise cultural values such as gender associations and aesthetics in the style (traditional, experimental), colour (pink, rainbow), materials (high tech, biodegradable), construction (machine made, handstitched). Choreography of these multiple modes is at the heart of book-art practice, reaching beyond the confines of a recognisable book (Knowles, 1995:117). The artist-book in its multimodal capacities for nuanced communication with audiences is well equipped to explore the complex slippages which occur in the transition between a living plant and its representations.

However, a single book constitutes a small part of the encounters, influences, struggles and sensations that precede it and the events which follow. The artist-book is strengthened by playing its part in the diverse interacting forms and processes, envisaged as a multimodal assemblage. A multimodal assemblage may comprise performative actions, events, interventions, conversations as well as things, people, plants and books, which all contribute to the continuity of the artwork. Bennett describes assemblages as 'ad hoc groupings of diverse elements, of vibrant materials of all sorts' (Bennett, 2010:23).<sup>78</sup> I imagine the multimodal assemblage existing across time and place, that is, not necessarily an assemblage of artefacts or objects to be seen in a single viewing.

The artwork *Thirteen Seeds* (Charlston, 2017) exemplifies the extended processes and fluctuating alliances encompassed by sympoietic book art. I took a handful of seeds from my box of mixed seeds, sorted them into thirteen different types and drew one

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<sup>78</sup> Bennett follows in this respect Deleuze and Guattari (2014[1987]).

seed on each page of a cut-and-fold book (Figure 3.3). 'Planting' single seeds on the empty whiteness of the pages intensified their need for dark complex soil.



Figure 3.3 Artist-book *Thirteen Seeds* (Charlston, 2017).

Four months later, I planted the seeds in individual pots with awareness of our artistic connection. Up to this point I may have appeared to be working alone, but the seeds were active co-workers. In less than three weeks the cress was fully grown while the lime tree will not be fully grown in my lifetime. However, the lime tree will continue to be part of the artwork as a guerrilla intervention. When it reaches a height of 30cm, I will plant the sapling in a lime avenue where trees are dying (Figure 3.4).

Dispersal of the next generation of seeds perpetuates the artwork with the help of human participants. At a 'seedswap', two years after the original drawings,<sup>79</sup> I donated a packet of seeds from the next generation of love-in-a-mist, constructed as an artist-book. The recipient of the seeds contacted me to discuss the perpetuation of the artwork, thus assisting the transition from a gardening enterprise to an artwork. Re-contextualising the new seeds as an artwork creates opportunities for discussion and collaboration, thus intensifying connectivity between the book, the seeds, the artist and the recipient. This alliance emerges from the unpredictable living assemblage (Bennett, 2010:24).

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<sup>79</sup> Seedswap at Ludlow Old Brewery, 13.03.19.



Figure 3.4 Continuation of the artwork *Thirteen Seeds* (Charlston, 2017-2019).

Left: Dying trees in the lime avenue

Right: The lime tree seedling, 15cm

A single artist-book is far from whole when temporal-spatial relations with other work are recognised. The book becomes part of a larger, ecologically situated artwork.<sup>80</sup> A collective is created when lively connections between the artist, the plants the artwork further participants and audience are nurtured. Relationships of plant and human co-creators take on new significance if the ‘maker-book-reader’ merge as an artistic natureculture, a hybrid, composite organism-artefact, part human, part book and part plant. The analogy is apt in that living organisms invariably include non-living elements (hair, nails, bark). Identity boundaries of organism and artefact (thus nature and culture) are rendered indistinct by such co-operative relationships, opening new ground for shared creative thinking and dynamic interchange.

While *Thirteen Seeds* is a small scale, indeterminate assemblage, which develops with the temporal pace of plants and responds to chance events, Katie Paterson's work *Future Library* (2014-2114) is a monumental and carefully planned artwork which

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<sup>80</sup> Martin Erik Andersen, who works with plants, describes his exhibited art as merely temporary stops in a continuing web of communication: <https://m.youtube.com/watch?v=Dv4w4QLD0SQ> (accessed 09.06 19).

synchronises with the growth of trees. In Paterson's sustained collective effort, co-creativity is thoroughly controlled. Invited guests will contribute secret texts over a period of one hundred years, to be printed in 2114 on paper made from a forest specially planted in 2014.<sup>81</sup>

### **Drawing-with-plants: more than representation**

Multimodal book assemblages are preceded by image making processes and poetic writing in sympoietic practice. For the remainder of this chapter, I turn attention to co-creative activities and forms of representation with implications for plant de-coherence. Making representational images of plants is not intrusive and seems to comply with the non-exploitative motives of sympoietic art practice. However, photographs and hand-drawn images radically change plants into lines and shapes.<sup>82</sup> Ongoing relationships, living processes and temporal changes are frozen in time on a flat surface thus inevitably creating layers of plant de-coherence. For an artist, the intimacy of drawing plants, the slow painstaking process of drawing seedlings from day to day as they grow and change, activates a sense of alliance in the growing process which enchants the artist-plant relationship. Nevertheless, I want to interrogate the extent to which the transition from a real plant to its representation may be damaging for the plant.

Jai Redman's *Winter Thyme* is an inspiring example of non-destructive, co-creative practice (Figure 3.5). It was painted using the water of transpiration from the leaf of the plant. The artist's sharing of this information with the audience preserves connections with the life of the plant thus transforming the painting from a mere representation. The information points to the dedication of the artist, collecting minute amounts of water from the leaf surfaces. It also indicates that the plant was alive when it was painted, taking in water through the roots. The water passed up the stems and into the leaves, filling out the cells and keeping the plant upright. For me, knowing that the painting includes water which has been part of the living plant connects me to the artist and connects the painting to the plant. The information is accordingly integral to my understanding of the work.

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<sup>81</sup> The details of Future Library can be viewed at <http://katiepaterson.org/portfolio/future-library/> (accessed 17.06.19).

<sup>82</sup> Karen Barad sets out the philosophical discussion about whether, or in what sense, objects exist prior to their representation (Barad,2003:801-802).



Figure 3.5 *Winter Thyme (Jai Redman, 2011)*.<sup>83</sup>

My experience of growing-with-plants as an artist was intensified by the intimate attention required for the process of drawing. I do not draw plants for a final effect or representation, but rather for endorsement of our co-existence through careful attention, communing, effort, something revealed, a sharing of continuing life. The mismatch between the plant, the drawing process, the art output and the viewer's reading of it create a mesh of plant de-coherence, whether or not the drawing is a lifelike representation of the plant.

It is as though my concentration and effort substantiate our presence together in the here and now as well as yesterday and tomorrow. There is a moment in the drawing process when I am mentally touching the lines, shapes and details of the plant. Figure 3.6 shows the proximity of my hand and body to sprouting lemon pips as I draw them. The drawing emerges on the page. The hand and eye seem to take over and work together with the plant, automatically re-forming the plants when their shape, texture and character seep into the drawings. Ingold considers that making becomes growing when a cultural artefact grows incrementally and takes on 'a life of its own' in the making process (Ingold, 2013:21). Diverging from this view, I imagine that my drawings take on

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<sup>83</sup> Winter Thyme (Redman 2016) was shown in the exhibition *Paradise Lost*, Manchester Art Gallery, September 2016-October 2017. Photo credit: Jai Redman, included in this thesis by kind permission.

life from the plant. When I 'plant' plants onto a page they actively grow into my head, asserting their plant agency.



Figure 3.6 'Planting' lemon sprouts on the page.

In Chapter 1, I noted that lasting images of grass assert themselves in the imagination long after knitting with grass. Subsequently, drawing strands of couch grass on a scroll of brown paper became almost obsessive so that I added more and more paper in order to continue drawing. After a while, I drew the grass automatically without collecting a new sample to look at. The process became replication rather than representation as each piece of grass surfaced on the page, each one different, all the same (Figure 3.7).

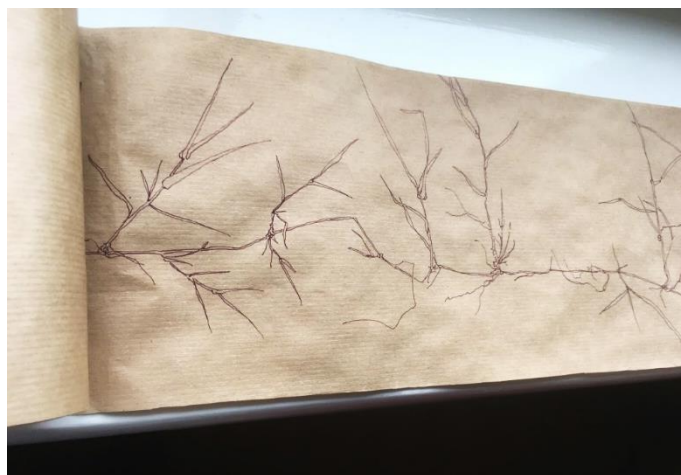


Figure 3.7 Five-metre scroll *Rhizomatic Couch Grass* (Charlston, 2019).<sup>84</sup>

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<sup>84</sup> The initial activities with couch grass proliferated into an assemblage of interconnected artwork including: grass knitting, grass stitching and a video with readings: *when did grass become a green square?* (Figures 1.1 and 1.2). Also the five-metre scroll drawing: *Rhizomatic Couch Grass* (Figure 3.7) and drawings with collaged text: *Grass Blind* (2018).

The artist-book *drawing together* (Charlston, 2015) gathers eight drawings of plants grown from supermarket fruit into a temporary structure, veiled by glassine dropdowns. While the fragile joinings and graphite smudges signal my intimate encounters with the plants, the drawings are detached from their processual becoming and do not convey the full experience of the sympoietic process (Figure 3.8). However, while it is important to emphasise co-dependence of plants and people throughout the co-creative process, I am not attempting to represent sympoiesis, but to enact it. The aim is to develop co-creative, ethical, non-exploitative and, where possible, ecologically situated practices with plants and concurrently to investigate my changing relationship with the plants.



Figure 3.8 Pages from the proto-artist-book *drawing together* (Charlston, 2015).

Most plants are in a continual symbiotic relationship with underground mycorrhizal fungal filaments which form communication and transport networks between plant roots in exchange for sugars synthesised by the plants. A complex, adaptive social network is created under the ground when interconnecting fungal threads form in symbiosis with plant roots (Gorzalak et al., 2015:1). Drawing plant roots as a performative act led me to think about mycorrhizal connectivity and the root-brain

analogy. To draw the roots is a sharing of existence with the dark, hidden parts of the plants, a kind of onto-epistemological being as knowing (Barad, 2003:829). As I gently pulled each plant free from loosened earth, the roots were mute, no mandrake shrieks, no chthonic dread. I imagined that we made the drawings together, in harmony and with mutual concentration, a sympoietic 'making with', neither ecologically disruptive nor exploitative.

*The pencil tip meets the paper at a sensitive curve part-way along one of the thousands of undifferentiable rootlets at the base of the Herb Robert plant.*

*I hesitate, the pencil tip yet poised, merely tickling the sensitive curve.*

*A movement of the pencil will draw-out the root from the depths of the page, not place it on the surface.*

*A tiny movement down the page will stroke into existence the ever-decreasing root strand to the infinitesimal tip where left and right become one.*

*A tiny movement up the page will begin a trace towards the indeterminate convergence of root with stem where dark meets light.*

*Fragment (Charlston, May 2017)*

While I wish emphasise the sharing aspect of sympoiesis or at least make transparent the processes and intentions of collective making, and not forgetting Haraway's 'worlding-with in company' (2016:58), the joy of drawing on my own with a plant has personal significance that is difficult to share with others. For me, drawing plants means close attention, validation of our shared time, a satisfying experience, offering benefits of exploration, speculation and imagination around co-creative processes. Nevertheless, I sensed a transgressive element in this exposure of the secret parts of the plants. I am forced to admit that for the plants, the shared experience of being drawn may have been violation, a tearing away and exposure, or possibly nothing at all. Sympoietic art practice with plants remains lively, adaptive and collective by working and thinking with, and within, the absurdities of these contradictory positions.



## Making-with-plants and sunlight

Our attention now turns from the dark-seeking roots of the plant to the striking contrast of the light-loving leafy plant. Some years ago, I visited an inspiring exhibition of seaweed cyanotypes in Bath.<sup>85</sup> They were made by Anna Atkins between 1843 and 1850.<sup>86</sup> Cyanotype is a photographic printing technique whereby light-sensitive liquid is painted onto a surface to produce 'sunprints' or direct contact photograms.<sup>87</sup> This cyanotype process, which simply responds to sunlight has a renewed significance for me in the context of sympoietic art practice with plants because of the process of photosynthesis in which plants use energy from sunlight when they make glucose. In the spirit of sympoietic 'making-with', I undertook a series of cyanotypes in the open air, in co-operation with living plants growing in my garden. Seventeen of these cyanotypes, worked on fragile 30gsm Chinese Wenzhou paper made from mulberry-bark, came together as the artwork *When plants are included as participants, the sun, the wind and the rain join in* at Grosvenor Gallery, Manchester in November 2017.

The images were formed in two stages to recreate the layered depth of being among plants and to emphasise the situated co-creation with plants. In the dark shed, I mixed equal quantities of potassium ferricyanide and ferric ammonium citrate and painted the liquid over strips of paper masked by scattered leaves. The spreading was uneven and left pools of dense medium. After a short drying time, I took the strips one by one into the garden for the second stage of the process. It was a day of fast-moving clouds. I clamped living stems of trailing passionflower, clematis or runner beans over the coated papers which were then exposed to wind-blown showers and spells of variable sunshine. The unpredictable conditions commonly experienced by plants were not ideal for making perfectly defined cyanotypes. Then the washing stage, as pollen-laden gusts of wind tore at the paper and flung corrosive drops of rain, pitting the colours and dissolving molten leaf shapes into blue. The completed sunprints retain marks which reveal the fragility, delicacy and ephemeral qualities of the plants and the impermanence of the conditions: irregular shapes, damaged paper, watermarks, flecks

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<sup>85</sup> Exhibited at the Bath Royal Literary and Scientific Institution. I have not been able to verify the date. I believe these were made by Anna Atkins herself, but they may have been derivative.

<sup>86</sup> Anna Atkins' pioneering cyanotypes of seaweed featured in the first ever photographically illustrated book: *Photographs of British Algae: Cyanotype Impressions* (1843).

<sup>87</sup> See also '*Bloom*', a series of painted plant silhouettes responding to Anna Atkins' cyanotypes and to plants in the Horniman's Gardens and Historic Collection. Edward Chell, July 2015.

of dust and soil, blurred edges where leaves came in contact with the still damp chemicals. The image on the left (Figure 3.9) shows the paper pinned to a washing line during the washing stage. During washing, any colour which has not been fixed by sunlight is removed to reveal white plant shapes. Normally, the paper would be submerged or washed under a running tap, but this paper was too fragile. Instead, a fine spray of water was allowed to run down both surfaces.



Figure 3.9 Seventeen cyanotypes, *when plants are included as participants, the sun, the wind and the rain join in* (Charlston, 2017).

Left: Paper washing

Right: Grosvenor Gallery, Manchester (November 2017)

There are natural pigments in plants which respond to sunlight, however, the changes in colour are not permanent. Chlorophyll is a green photosensitive pigment in plant leaves which captures sunlight for photosynthesis,<sup>88</sup> Bearing in mind that green grass quickly turns yellow if the light is blocked, for example when a box is left on the lawn, I experimented directly with green leaves and sunlight in a process similar to that used in cyanotype. Surplus runner-bean leaves were placed in the full sun with smaller leaves or a wire mesh on top. A Perspex sheet held the arrangement flat. Vietnamese artist Binh Danh reproduces detailed photographs on leaves with this process and preserves

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<sup>88</sup> Photosynthesis is process in the cells of green leaves. Sugars are made from carbon dioxide and water vapour using energy from sunshine.

them for exhibition.<sup>89</sup> By contrast, my leaf prints were unpredictable and transitory. The leaves became so fragile when they dried that they began to fall apart (Figure 3.10). While it would be possible to apply preservative techniques, the ephemeral nature of the work situates it in the moment and expresses the plants' responses to sunlight, thus allowing sympoiesis to take precedence. These spontaneous techniques create less plant de-coherence than heavily controlled attempts at representation.



Figure 3.10 Contact sunprints on runner-bean leaves.

### **De-coherence effects of representation: aesthetics, symbolism, spectacle**

To emphasise the de-coherence effects of plant representations, I will take the extreme example of artificial plants. A toxic plant de-coherence is created when artificial plants represent plants and appropriate the aesthetic value of living plants, in many cases, creating plastic waste in place of the contribution which living plants make to environmental stability. Living plants, even those confined to pots, are an essential part of the ecosystem: they photosynthesise, lock away carbon in biomass, trap pollutants and provide habitats for other organisms. As long ago as 1989, the NASA Clean Air Study identified plant species which remove indoor pollutants detrimental to health.<sup>90</sup> Two of these, *chrysanthemum* and *snake plant* remove the indoor air pollutants benzene,

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<sup>89</sup> Examples of Binh Danh's leaf prints can be viewed at <http://binhdanh.com/Projects/AncestralAltars/AncestralAltars.html> (accessed 17.06.19).

<sup>90</sup> Available at <https://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/19930073077.pdf> (accessed 07.05.19).

formaldehyde, xylene, toluene and ammonia. Needless to say, fake plants do not offer these benefits but signal plant presence by mimicking living plants.

The prose-poem *Three Daffodils* (Charlston, 2017) articulates the shifting terrain in which living plants jostle with plant artefacts for attention. A plastic daffodil, a supermarket daffodil and a daffodil picked from my garden exhibit aspects of both organism and artefact, both nature and culture. The three daffodils occupy mobile positions in a nature-culture continuum (see pages 45-46).

*Three daffodils in a vase. One of them is not a real plant.*

*The artificial daffodil lasts 400 years. It does not attract insects, there are no pollen allergens, no spillage, no danger from eating the poisonous plant. But the sun will fade the colours, there is no touch or smell of a living plant, no flow of water, no exchange of carbon dioxide with oxygen.*

*The supermarket daffodil was force-grown in artificial light and heat, fed with growth hormones and fertilizers and cleansed with pesticides. In a sense it has been manufactured but it carries out the same life processes as any plant. Cell division and life processes are not controlled by human agency.*

*I turned the third daffodil bulb in my hand and felt its papery skin. I dug into the earth, placed the bulb, pressed the soil down firmly with my hand to bed-in the bulb. Later, I saw the leaves poking through the earth and watched them grow. I saw the flower stem emerging, the bud forming and the flower opening - sun shining through the yellow. This daffodil is connected to the changing seasons, sunlight, soil. And it is part of me. I chose to watch the daffodil – I touched it, picked it, held it to my face, and marvelled at it.*

*This is perhaps of no importance to the daffodil, but it is important to me.*

From the proto-artist-book *Three Daffodils* (Charlston, 2017)

Despite the obvious divergence in organic constitution, the daffodils share a decorative, cultural function. While the supermarket daffodil is a living plant, it has been produced as a commodity for the marketplace, making it a hybrid organism/artefact or, by analogy, naturalcultural. The plastic daffodil is placed at the cultural end of the nature-culture spectrum while my garden-grown daffodil is more natural. The poem expresses

a mental struggle over my preference for the intimacy of my own shared creation. Reluctantly, I am forced to acknowledge that by placing this flower in a vase with a fake flower, I break ecological connections and create new cultural de-coherence effects in my relationship with the plant. All of these intricacies, including my concerns about plant de-coherence, become less relevant if all three daffodils are seen as naturecultures. While the blurring of distinctions between nature and culture serves to undermine hierarchical thinking, thus moving on from normative thinking, I suggest that giving attention to multiple, even conflicting, models can usefully inform co-creativity.

While artificial plants might be an appropriate choice, for example, in the case of pollen allergy, each time an artificial plant is chosen as an aesthetic replacement for living plants, ecological relationships are marginalised. The proto-artist-book *Reading the Palm* (Charlston, 2015) expresses my shock at discovering two artificial palm trees on Platform 10 at Piccadilly Station in Manchester. The artificial palm trees represent living palm trees and, through shared cultural understanding, point to holidays, leisure and sunny beaches, thus creating further layers of plant de-coherence. In the book, multimodal cues of colour, text, formatting, image, structure, and imagery work together to encourage the reader to speculate and expand ideas. The structure, text, lay-out and colour allude to palm trees without direct imagery. When extended, the articulated paper fronds partially obscure the text while hindering the closing of the book, thus calling attention to the text and simultaneously making reading more difficult (Figure 3.11, left).

The bookwork began with a performative intervention when I placed a paper palm tree at the base of one of the artificial palms, alongside an apple core and cigarette ends (Figure 3.11, right). This action prompted the automatic writing in the book (reproduced in full below), which blurts out the sense of intrusion evoked by the artificial palm trees. Compiling the artist-book *Reading the Palm* led to further investigations of the de-coherence effects of fake plants in art.

*Feel the bark it's real bark from the real palm tree fibrous hacked off a dead tree or  
hacked off a live tree rough on the hands cutting into the palms and the fingers  
bruised flung in a heap somewhere till someone picks up the pieces to glue strong  
wood glue will stick the bits of palm bark onto a wooden pole perhaps some nails  
too do they wear gloves do they wear masks or get glue on their hands solvents in  
their lungs do they get ill working with the glue and the palm bark do they get good*

*pay live well or do they suffer misery so that we can have fake palm trees on platform 10 Piccadilly Station getting dirty grimy greasy till they get chucked away with all the glue the palm tree bark and the wooden pole and the counterfeit leaves the desiccated desecrated coconut palm on the platform not pointing to the beach sand blue water fronds swaying against blue sky in the warm breezy sun but still and dead on the hard platform no pulse no stream from root to leaf no living green no gas exchange no growing no dying hurry past chuck a secret fag-end in the tub an apple core tickets please lost property lost palms the spray of leaves mimic the fine columns with green painted capitals green Corinthian acanthus foliage is this after all a piece of wit a surrealist joke even an artist's intervention can this palm be read with humour or only tears who chose it no-one a budget bought it a budget for plants for decoration for fun a fun budget spent for no-one not even something for the homeless to lean against to dream against to be sick against a sordid fake shameful palm tree pointing to nowhere telling the story of the lives we lead.*

Extract from the proto-artist-book *Reading the Palm* (Charlston, 2015)



Figure 3.11 Left Proto-artist-book *Reading the Palm* (Charlston, 2015)

Right Performative intervention at Piccadilly Station (2015)

In terms of non-linguistic symbols, a 'symbolic load' is imposed on red poppies when they are appropriated for the remembrance of soldiers' lost in war because they happened to grow in the war zone. The cultural association suppresses plant attributes, thereby creating plant de-coherence. Poppy symbolism intensified during the WW1

centenary in 2014, as exemplified by a dramatic installation of 800,000 ceramic poppies at the Tower of London (Figure 3.12). *Blood Swept Lands and Seas of Red* (Paul Cummins and Tom Piper, 2014) was a crowd-pulling spectacle which has been repeated in different forms<sup>91</sup> at nineteen sites across the UK in a four-year tour since its first showing.<sup>92</sup> The redness of the poppies creates a visual metaphor of flowing blood and the work is emotionally charged with symbolic remembrance of war and sacrifice, while simultaneously (if unintentionally) raising the status of artificial plants.



Figure 3.12 *Blood Swept Lands and Seas of Red* (Paul Cummins and Tom Piper, 2014).<sup>93</sup>

This artwork may bring to mind the sight of red poppies growing in a field but the symbolic reference to war competes strongly with poppies as plants in a blatant distortion of plant life. A comparison could be made with Ai Wei Wei's *Sunflower Seeds*<sup>94</sup> in which a hundred million porcelain seeds were exhibited at large exhibition spaces in

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<sup>91</sup> Two parts of the installation, *Weeping Window* and *Wave* (Figure 3.12), were selected for the tour.

<sup>92</sup> <https://www.theguardian.com/artanddesign/2018/sep/07/poppies-sculptures-installed-london-manchester-armistice> (accessed 05.04.2019).

<sup>93</sup> Photo credit Linda Nevill included here by kind permission.

<sup>94</sup> Originally, the audience walked among the seeds on the floor of the Tate Modern Turbine Hall, but barriers were installed because of the risks of breathing ceramic dust. Available at: <https://www.theguardian.com/artanddesign/2010/Oct/15/tate-modern-sunflower-seeds-ban> (accessed 04.04.19).

twelve cities between 2009-2013<sup>95</sup>. They embody a more naturalcultural significance, in this case the artist stresses indexical signs which point directly to the role of sunflowers, western consumerism and mass production in China: 'Seeds grow...The crowd will have its way, eventually'.<sup>96</sup>

When artists talk or write about their work with plants, they use language (a symbolic form of communication) for discussion. This linguistic input has the potential to support eco-ethical intentions or conversely to intensify the de-coherence effects of visual representations. Damien Hirst's current cherry blossom paintings, for example, are an awe-inspiring and uplifting reminder of plant beauty. However, Hirst downplays the plants themselves in favour of symbolic cultural references: 'I Just thought: Oh my God, I wonder if I could just do cherry blossoms [...] it seemed really tacky, like a massive celebration, and also the negative, the death side of things'.<sup>97</sup>

Colourful flowers tempt artists to create artefacts of spectacular excess, visual feasts, a dazzling sensuous experience for the viewer – the unmistakable result of painstaking contrivance by the artist. Mediated experiences of sensationalism, spectacle and ego-centric expression compete with unpretentious plant encounters in ecological contexts thus creating plant de-coherence. If such works dominate the art scene exclusively, they may damage coherent communication with plants. However, as part of a balanced variety of approaches, spectacular artworks can contribute to an acceptance of difference and diversity by setting up new, sometimes exciting relationships and stimulating appreciation of the complex ways in which plants are experienced. The artist and the audience must decide for each individual work whether it is exploitative, a gimmick, a damaging source of plant de-coherence, a celebration of beauty or a bearer of specific signs. For example, Camila Carlow's human organs made from plant parts (*Eye, Heart, Spleen, 2014*) could be merely fun or a startling demonstration of D'Arcy Thompson's morphogenesis theory of patterns in natural form (1992(1942)).

Evoking Debord's warning: 'The spectacle is the moment when the commodity has attained the total occupation of social life' (Debord, 2010 [1967]:42), the Japanese art

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<sup>95</sup> The exhibitions are listed at: [www.aiweiweiseeds.com/exhibitions/list-of-exhibitions](http://www.aiweiweiseeds.com/exhibitions/list-of-exhibitions) (accessed 03/04/19).

<sup>96</sup> Ai Wei Wei's statement is quoted at: [www.aiweiweiseeds.com/about-ai-weiweis-sunflower-seeds](http://www.aiweiweiseeds.com/about-ai-weiweis-sunflower-seeds) (accessed 04.04.2019).

<sup>97</sup> Quoted from <https://news.artnet.com/art-world/damien-hirst-cherry-blossom-paintings-1532110> (accessed 06.05.19).



collective teamLab<sup>98</sup> produce spectacular digital light and sound installations and virtual landscapes which respond to movement. In *Floating Flower Garden* (2015), viewers are immersed in suspended living flowers, controlled to move away as they approach (Figure 3.13). However, teamLab aspire to more than a 'spectacle' which attracts sensation-seeking audiences: 'A person will become integrated with a flower when they look at a flower and the flower looks at them; perhaps at this time, that person will truly see the flower for the first time'.<sup>99</sup>



Figure 3.13 *Floating Flower Garden* (teamLab, 2015).<sup>100</sup>

*'Flowers and I are of the same root, the Garden and I are one'.*

Aesthetic stances adopted by artists present a challenge for sympoietic practice because, as we have seen, they act as a source of plant de-coherence with both positive and negative consequences for plant-human relationships. While art can, and often does, support positive plant relationships<sup>101</sup>, aesthetic values in art may distort plants

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<sup>98</sup> <https://www.teamlab.art> (accessed 05.09.2018) See especially, *Floating Flower Garden*, Tokyo 2015, *The Botanical Garden and Animals of Flowers*, *Symbiotic Lives*, Tokiwa Plant Museum, 2018 and *A Forest where God Lives*, Kyushu, 2018 also the permanent exhibition *Borderless* at the Digital Art Museum, Tokyo in which digital immersive artworks move rooms and intermingle.

<sup>99</sup> Quoted from: <https://www.teamlab.art/w/ffgarden> (accessed 05.09.19).

<sup>100</sup> Interactive kinetic installation at the National Museum of Emerging Science and Innovation, Tokyo, Nov-May 2015 and MAISON&OBJET Paris, September 2015. The image is from 'images for the media' [https://www.dropbox.com/sh/hz4lel15u3bsm1f/AACfKc6cJmSvBiUoCWZzC0nPa?dl=0&preview=Floating+Flower+Garden\\_12\\_high.jpg](https://www.dropbox.com/sh/hz4lel15u3bsm1f/AACfKc6cJmSvBiUoCWZzC0nPa?dl=0&preview=Floating+Flower+Garden_12_high.jpg) available at the teamLab website: <https://www.teamlab.art/w/ffgarden> available at (accessed 19.02.19).

<sup>101</sup> See for example Basia Irland's work (page 54) and *Winter Thyme*, Jae Redman (page 60 Figure 3.5).

detrimentally. When representations of plants are used metaphorically or allegorically in art, the plants' narrative agency is appropriated to point to cultural symbolic references which may obscure plant signals. Treating plants as objects of art removes ecological contexts by allowing humanist values such as harmony, symmetry and balance to mediate aesthetic judgement (Ryan, 2011:225, Brady, 2006). Representations of plants often depict detached plants,<sup>102</sup> or create a simple impression of plants as pleasing artistic objects. In this way the emphasis of the aesthetic experience is displaced from living plants to the portrayal of plants. Contradictions in my own drawing experiences are discussed on pages 61-63.

Ryan (2011:234) proposes an alternative, situated aesthetic model which necessitates proximity to living plants and foregrounds senses of taste, smell and touch within a complex ecosystem of responsive conditions and participants. This embodied interaction through multisensory appreciation (Ryan, 2011:224-226, Brady, 2006:285) offers a starting point for cultivating aesthetic values for sympoietic art: seeking opportunities for collective and personal aesthetic relationships to develop, in which mutual exchanges open the way for shared plant experiences. Beth Dempster's original use of the term sympoiesis describes behaviour in a 'collectively produced', 'adaptive' system (Dempster, 2000). Evidence of co-production and adaptability might therefore be sought in sympoietic art. More specific to sympoietic practice is awareness of plant agency and egalitarian, non-exploitative ethical priorities. Additionally, an appreciation of the complexities of plant de-coherence adds an exploratory, imaginative dimension to the aesthetic.

Direct aesthetic appreciation of plants already exists for many walkers, gardeners and artists. Artists go further to find creative ways of sharing the intimacy of solitary aesthetic communion with plants through literature and art.<sup>103</sup> While such representations replace first-hand experiences for the viewer, they also enable a wide appreciation of nature without excessive intrusion. To discourage eco-tourism (with its attendant litter, pollution from vehicles and destruction of sensitive habitats),<sup>104</sup> wild places are often mediated by expert photographers and narrators, whose professional

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<sup>102</sup> See <https://www.botanicalartandartists.com/botanical-artists-in-the-uk.html> (accessed 19.02.19)

<sup>103</sup> For example, romantic landscape paintings accentuate wild nature (Caspar David Friedrich) or personal love of countryside (John Constable).

<sup>104</sup> Bluebell woods in Scotland are said to be suffering damage from excessive eco-tourism <https://www.bbc.co.uk/news/uk-scotland-48278121> (accessed 17.05.19).

gasps of wonder convey aesthetic intensity experienced on behalf of others<sup>105</sup> (Soper, 1995:29). While there is a risk that such mediations claim aesthetic privilege over the presence of plants, there is also a measure of risk to plants if too many people are encouraged to seek direct aesthetic experiences. This research project attempts to find a balance between these extremes. Sympoietic art practice necessitates proximity to living plants and encourages collective participation. However, the scale of intrusion is kept in check by eco-ethical requirements of forming non-exploitative, egalitarian relationships.

In the next Chapter, plants burst into the foreground as I meet them on their own terms when growing-with-plants becomes a co-creative practice. The co-agential interactions with plants necessitate a close scrutiny of the ethical principles of non-exploitative, egalitarian practice with plants.

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<sup>105</sup> Nature programmes (as well as nature writing and art) often go beyond aesthetic enjoyment to deliver a powerful ecological message. For example, David Attenborough's series *Planet Earth II* (BBC1, 2016) encourages ecological awareness while Chris Packham builds his narrative around symbiotic relationships in the series *Secrets of our Living Planet* (BBC 2, 2012).

## CHAPTER 4

### GROWING-WITH-PLANTS

I have grown plants all my life, plants to harvest, to share, to enjoy in gardens, tubs and pots, but, until now I have not grown plants as part of a sympoietic art practice. This chapter interrogates familiar growing processes from the point of view of an artist seeking to probe the relational changes brought about by attempting to work co-creatively with plants. Of all the sympoietic relationships with plants, the forming, breaking and remaking of connections with the vegetal during growing processes is the most intimate, the most ambiguous in terms of shifting roles and the most demanding of commitment and ethical responsibility.

#### **Growing supermarket fruit**

An incident at the outset of this research prompted a long-term co-creative growing project with all kinds of supermarket produce. At a group session, researchers shared their research interests by means of an object. The object I brought to the session was a pink grapefruit from Sainsbury's supermarket, significant because on arrival in Manchester at the beginning of my research, the first plants I encountered were supermarket fruit, oranges, melons, bananas, grapefruit lined up in rows opposite the ready meals. Organisms or artefacts? Autopoietic systems or commodity? Dead or alive, or something else? The pink grapefruit felt cool and substantial in my hand.

Later, in the group session, the pink grapefruit on the table was waxy yellow tinged with pink from the juicy flesh inside. I could see the little dots on the skin that contain essential oils. When I pressed my nail into the surface, a fine spurt dampened my finger. After a moment, the sharp citrus smell permeated the air. I realised that I had come to believe, tacitly, that the fruit with its barcoded sticker was sterile, the vital nature bred out of it. The clean, shiny, uniform supermarket produce had become, for me, an imitation of the real thing (Figure 4.1).



Figure 4.1 The Object: a supermarket grapefruit.

Today, I recognise this commodification of the plant as an example of plant de-coherence on the supermarket shelf. The grapefruit was grown for size, colour, flavour, eye appeal. Wondering how fruit, which holds the essence of life, could have become so objectified, I pose the ecosemiotic question: *What inter-relations are signalled?* The supermarket shelf stocked with imported goods for sale, is an indexical sign for commodity (indexical signs are described on page 100). Commercial messages alienate the fruit from the living plant which produced it. The indexical signs 'healthy food'; 'buy me', 'colourful in the fruit bowl,' belie the subtext of 'air miles', 'exploitation of workers', 'pesticides', 'capitalism', but the plant itself and the hand reaching out to cup the heavy fruit, have been forgotten.

I asked the group: 'Is this grapefruit alive, does it have a purpose of its own?' Someone commented that only humans can assign purpose. Are plants, then, purposeless and without value, unless a human decides to give them purpose? Others said the pips inside were alive and purposeful, in line with the idea that reproduction, the continuation of the species, is a purpose common to all life. But pre-determined purpose precludes agency because there are no choices, no influence. An indeterminate world is a necessary condition for agency to operate (Barad, 2003:820). My interest in active plant agency and its place in sympleiotic art practice originated in these discussions and my subsequent attempts to grow plants from the supermarket fruit.

Back in the studio, I took the grapefruit apart piece by piece, the peel, the pith the skin around each segment and then I ate the hundreds of tiny sachets full of pink juice. My appropriation of an 'object' for discussion perpetuated the instrumental use of the grapefruit, consequently I wanted to find out if life lingered in this seemingly passive grapefruit-object. The pips were slippery against my nail as I carefully picked at the pointed ends and peeled back a sliver of the outer skin. I wrapped the pips in wet tissue and placed them in a sealed bag near the hot-water tank to keep them warm and damp.<sup>106</sup> Three days later, folding back the layers of tissue paper, I was astonished by the vigorous certainty of sprouting roots and shoot (Figure 4.2).

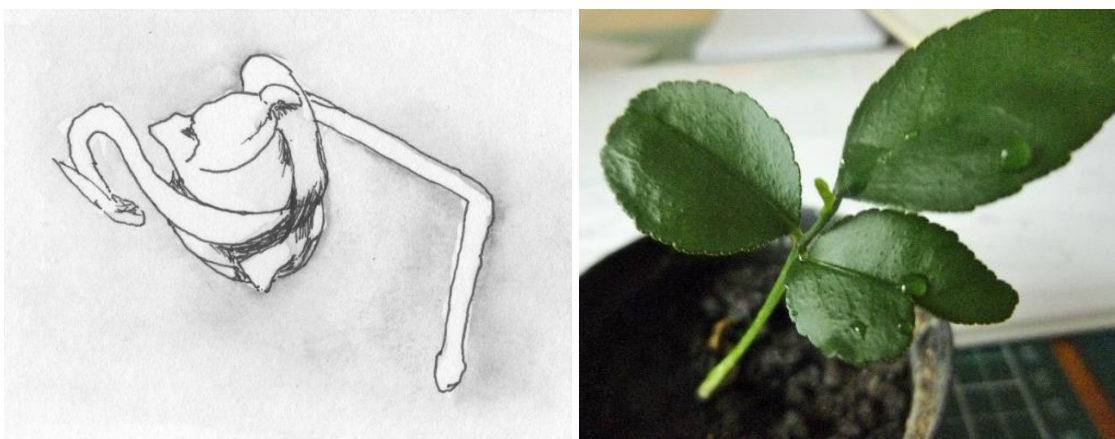


Figure 4.2      Left: Sprouting pink grapefruit seed      Right: The seedling two months later

Direct contact with the sprouting seeds was a compelling encounter with fruit quite different from eating it. Co-operation with the plants as they grew gave me a sense of achievement that seemed to be shared with the plants. The intimacy of growing the grapefruit pips 'together' changed my perception of the supermarket fruit from an object 'thing', into a living companion. From commodity to colleague. The plants were not passive recipients of my agency, they were vibrant, actively living, growing and responding in a way that was beyond my control. This protracted recognition of vitality in the plants placed me in a shared world in which the supermarket fruit became present as plants and as agents (Figure 4.3).

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<sup>106</sup> After consulting YouTube instructions for growing citrus fruits <https://m.youtube.com/watch?v=xBFMQxAFXZw> (accessed 22.03.19).



Figure 4.3 *'supermarket fruit became present as plants and as agents'.*

To further investigate growing-with-plants, I nurtured lemon pips, oranges, avocados, pomegranates and melon seeds. I became more perceptive and responsive to plant signals, 'reading' daily changes and looking for signs of stress: drooping leaves, discolouring, shape anomalies, differential growth. Could these indicate too much or too little water, light, warmth, humidity? Growing plants was a collaborative making process, a co-creative production, both transitive and intransitive 'growing'. I grow the plant, the plant grows – we do the growing together. Growth was detectable in myself as well – growing awareness, growing sensitivity to plant signs, growing connectivity.

#### **Organism or artefact?**

When the processes of growing and making merge and interchange in art practice the rigid distinction between organism and artefact falls away, bringing to mind the discussion of naturecultures on pages 45-47. It is easy to envisage organism and artefact as 'reciprocal becomings (Massumi, 2002:10-11) when an artwork grows organically to become a partially living organic assemblage (Deleuze and Guattari, 2014 [1987]:24). Less so when plants are commodified for marketing. The 'becoming cultural of nature' can be an onslaught of cutting, killing, controlling and exploitative growing. Where is the

reciprocity in monoculture, genetic modification and commodification? This rhetorical question appears to support the plants' position against human tyranny but, paradoxically, in doing so demotes plants as passive and unable to help themselves. Michael Pollan's daring speculations reverse the 'helpless plants' narrative by suggesting that plants might play on our desires to ensure their survival, just as they play on bees' desires to ensure pollination. Pollan imagines that our most selfish and exploitative actions may push plant evolution in a direction which safeguards their future survival in urbanised, managed environments (Pollan, 2003:xi-xxiv).

There is a sense in which the growing of plants from supermarket fruit enacts a dynamic switching between organism and artefact. Transformation of supermarket fruit into living plants reverses commodification of plants but also retains a sense of artefact in the new plants. By caring for a plant, I diminish the independence of the plant-organism, which naturally grows by itself, making it partially 'my' plant, my artefact. However, growing plants and making things are rarely presented as dynamically linked processes. This section teases out some threads from a cluster of ideas around growing organisms and making artefacts, including the implications of making (and breaking) conceptual links between them.

Stephanie Bunn explores what she calls 'fuzzy boundaries' between growing and making willow baskets (Bunn, 2014:163), explaining how the willow influences the way her baskets grow. Bunn's connection with willow is especially strong because the material is vital and can form new roots after it is cut and woven. But makers who work with their hands will be familiar with the way so-called inert materials guide actions and influence the forms they make (Ingold, 2010:xi, Crawford, 2011:98). In *Making is Connecting* (2011:220), Gauntlett describes the benefits of everyday creativity and how connections and relationships with the material and social world are formed during joyful making. However, he does not portray the developing relationship as organic growing.

Here is a contradiction: while the sharp distinction between organisms (essentially alive) and artefacts (made by humans) is one aspect of the wider, thorny, nature-culture division, attempts to merge concepts of organism and artefact could, in turn, reinforce other divisive narratives. The becoming cultural of nature might assist the 'relentless artifactualism' of nature (Haraway, 1992:295) and 'capitalization of living matter' (Braidotti, 2013:61), which sit alongside commodification and exploitation. Anya



Gallaccio's works '*preserve beauty*' (Figure 4.4) and '*preserve cheerfulness*' (1991) make a spectacle of thousands of living flowers which are left to decay. However, the flowers are not sacrificed thoughtlessly. By exposing decaying flowers which have been mass produced for the marketplace, Gallaccio invites reflection on waste and misuse in consumer society which is normally hidden from public view.<sup>107</sup> Gallaccio describes the plants in her installations as a kind of readymade, thus they are intentionally depicted as artefacts. The works are powerful comments on commodification which turns living, growing plants into artefacts.



Figure 4.4 Anya Gallaccio, '*Preserve Beauty*', 1991/2003, © Anya Gallaccio.<sup>108</sup>

### **Sympoietic growing: caring or exploitative?**

Turning plants into artefacts may be more or less exploitative. The sale of millions of red roses on Valentine's Day, a distinct case of capitalisation of plants, differs from the capture of the Fibonacci series from plants to form cultural structures. The latter may amount to artifactualism but is not exploitative of plants. What are the ethical implications of my co-creative growing? Is this artistic endeavour non-exploitative, egalitarian, ecologically situated? When examined diffractively through the eco-ethical

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<sup>107</sup> Further information may be found at: <https://www.tate.org.uk/art/artworks/gallaccio-preserve-beauty-t11829> (accessed 02.05.19).

<sup>108</sup> All Rights Reserved, DACS/Armitage 2019, Low resolution image shown here with permission.

values which shape sympoietic practice, growing-with-plants presents a variegated pattern of relationships that might be expected of a diffractive reading (described on page 31). The joys of a caring, non-exploitative relationship are shaded in part by doubts and questions which constitute the real world in which the practice is situated. A relationship with plants is never complete, the final pinning down is always just out of reach. The most cynical appraisal sees me growing plants in ecologically disconnected, unnatural conditions. Colleagues were quick to point out that plants grown from supermarket fruit are unlikely to bear fruit, suggesting that it is futile to grow plants with no yield, or perhaps that a plant is purposeless when unable to reproduce. The latter suggestion, that the purpose of life is to reproduce, is in line with Aristotle who held that life forms flourish only in as much as their capabilities are met.<sup>109</sup> Since plant capabilities are said to be limited to 'low' activities of growing and reproduction, they remain unfulfilled if they do not reproduce. By these interpretations, growing supermarket fruit is exploitative and ecologically disruptive, consequently an unsound form of caring in terms of sympoiesis. The plants are dominated like caged birds, pets pampered for my satisfaction and research. But what if plant capabilities were to include the capacity to share their growing or the capacity to be represented? The assessment of co-creativity again switches in a positive direction. My growing project can be understood as a form of exchange, a symbiosis, perhaps a mutual agency whereby the commodified fruit is recontextualised to a less than perfect but also less disconnected ecology where continued life and growth is encouraged. I offered continuing life to these plants; the plants gave me joy and changed my attitude towards supermarket fruit.

Intellectual understanding gained through the intimacy of artistic sense-experience is cumulative and capable of generating alternative viewpoints to normative rhetoric. I was alarmed when the pomegranate plants began to wilt, and the leaves turned brown. When the leaves dropped, the plants seemed to be dying. However, new leaves began to grow, signalling that pomegranates are deciduous.<sup>110</sup> This is not new knowledge, but it is understanding learned through performing the mutual, lived experience of growing together with the plants (Figure 4.5). A Google search would have provided this information, but it would not have had the same bearing on my relationship with plants.

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<sup>109</sup> Professor Monte Johnson, UC San Diego explains the purpose of life according to Aristotle in a lecture. Available at <https://m.youtube.com/watch?v=sQk6t-9mQjE> (accessed 29.04.19).

<sup>110</sup> The 'indexical' sign is physically connected or linked by association to its referent (e.g. a yellowing leaf can be an indexical sign of autumn).

I am suggesting that a special mutuality emerges from an art-inspired sympoietic relationship, which is equipped to engage with today's ecological concerns, neither alarmist nor exploitative.



Figure 4.5 *'When the leaves dropped, I thought the plants were dead'.*

A caring sympoietic relationship is characterised by exchange, give and take, multiple interpretations, losses and gains for all participants. The struggle to find sympoietic ways of working with plants takes place in the light of these deeply ambiguous implications of caring. The sympoietic artist is required to think again about how to approach plants and how to care for them and about them, and then to continue thinking beyond simple solutions (Puig de la Bellacasa, 2017:Loc 3558).

Intuitively, I reach out to touch the new leaves of the fruit plants in a gesture of caring. The mango leaves are stiff and waxy, while the pomegranate leaves are a similar shape but small, soft and flimsy. Touch is unequivocally reciprocal, I touch the plant, the plant also physically touches me.<sup>111</sup> In spite of this, I cannot know if plants are aware of being touched, talked to or thought about. My touch may be offensive to the plant and intrusive on their silence. Chamovitz concludes that plants do not like being touched because experiments reveal that touching the leaves has the effect of inhibiting growth (Chamovitz, 2012:74-80). However, the assumption that growth inhibition is bad for the plant plays into the neo-Darwinian focus on competition over co-operation.<sup>112</sup> Touching

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<sup>111</sup> But see Barad's discussion on the impossibility of touching (Barad 2013).

<sup>112</sup> As an alternative to competition, Lynn Margulis proposed that co-operation drives the process of evolution. Available <https://www.pnas.org/content/109/4/1022> (accessed 23.03.19).

also prompts a tendril to coil and a root to grow around obstacles in the soil. Moreover, the slowing of growth could be a sign that plants cooperate over the occupation of space rather than competing aggressively to grab the biggest share.

There is a sense in which the mango leaves invite me to touch them (Figure 4.6). In order to work co-creatively with plants it is necessary to accept the possibility of agential activity on the part of the plant. It would be impossible to co-create equitably with plants if, at the same time, I considered them passive and incapable of actively influencing my actions. As a form of production, growing plants is undeniably co-creative, a joint enterprise, with some of the work being done by the plant itself. Thus, growing-with-plants strongly supports the possibility of agency and self on the part of plants.



Figure 4.6 *'There is a sense in which the mango leaves invite me to touch them'.*

### **Plants as persons: agency and self of a plant**

Co-agential creativity, that is, acceptance of plants as agential partners, requires fundamental changes to cultural norms and presuppositions. The recognition of non-human agency is an essential turn from anthropocentrism towards a wider world view which weakens human exceptionalism. At this point it is helpful to stand back from the intimacy of day-to-day caring for plants to interrogate the implications of *agency* and *self* in their growing processes.

Historically, only humans have been deemed capable of acting with intentional agency. Thus, if a nettle stings my hand, it must be that I touched it. The agency of my movement takes priority over the agency of the sting, distorted by a human bias towards the value of movement (Mancuso and Viola, 2015:149, Trewavas, 2015:67). John Stuart Mill's definition of nature marks this distinction in the conceptual separation of humans from the rest of the world: '...[nature] means, not everything which happens, but only what takes place without the agency, or without the voluntary and intentional agency of man' (Mill, 1904 (1874):9). The quote simplifies Mill's position, but the relevance here is the emphasis Mill places on the special human agency which separates humans from nature. Furthermore, humanist theories and Marxist materialism perpetuate a human-centric position which does not recognise material agency<sup>113</sup> (Pickering, 2001:172). Nealon reminds us that Heidegger also confines agency to a human capacity for world-forming while animals and plants instinctively or helplessly respond to given conditions (Nealon, 2016:42). These historically embedded starting points, in which humans are seen to dominate the world through exceptional agency, work against the possibility of plants acting as agential partners in art practice.

In living organisms, growth does not come about through conscious agency, even in humans. In our bodies, cells increase incrementally by division and expand in size without us knowing. The theory of autopoiesis proposes that the process of autonomous 'self organisation' is common to all living systems: 'a physical system, if autopoietic, is living' (Maturana and Varela, 1980 [1972]:76-82). While autopoiesis places all life on a more equal footing, I agree with Haraway that 'nothing makes itself'. When considering that all organisms (including humans) owe their existence to the ones that went before and the ones that nurture them, it is evident that autopoiesis is only possible within the context of wider sympoiesis. Nonetheless, it is significant for the present research that autopoietic 'self-organisation' entails the possibility of unconscious self-agency, self-relationality, at the heart of life processes.

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<sup>113</sup> Alfred Gell takes a humanist view of agency in art, proposing a doctor-patient analogy whereby the active agent is the temporary 'doctor' acting on a patient. The roles are reversed if the object 'acts back' (Gell, 1998). When applied to plants, Gell's formulation of agency reduces plants to objects which are given the opportunity to 'act back' when a human starts a chain of events. Aspects of Gell's theory are relevant to this research. Gell draws on the semiotics of C S Peirce, thus his terminology coincides with ecosemiotics.

The question of other-than-human 'selves' has been the subject of recent fascination in relation to animals (Kohn, 2013:73,114, Abram, 2010, Haraway, 2008), however, less attention has been given to plant selves.<sup>114</sup> Historically, plants have been considered self-less.<sup>115</sup> Yet, in his search for 'the minimal self', Rupert Glasgow is not alone in tacitly presuming plant selfhood: '...selfless cells sacrifice themselves for the sake of the collective self, i.e. for the wellbeing of the plant as a whole' (2017:266). Later he states '... plants have also been shown to have powers of self/non-self discrimination, thereby enabling self to avoid competing with self for scarce resources.' (2017:362 note 913).<sup>116</sup> Glasgow is referring to the way plant roots proliferate in the presence of non-self roots but proliferate less if they encounter their own roots. Whether or not the Darwinian explanation involving competition for resources is accepted, there is a distinct indication of choice (to grow or not to grow) which makes space for agency to operate.

Making use of anthropomorphism speculatively, the artwork *Thoughts on the Self of a Plant* (Charlston, 2017)<sup>117</sup> vitalises Glasgow's words, 'powers of self/non-self discrimination', by attributing the anthropomorphic 'I' to the plant. Each of four plants grown from the seeds of supermarket fruit is accompanied by a short text which brings attention to implications of ownership and claims of selfhood for the plants by posing different views the plant may have of its 'self' in relation to the grower:

'SHE GREW ME I BELONG TO HER'

'I GREW MYSELF; I BELONG TO MYSELF'

'I GREW, I BELONG TO NO-ONE'

'I GREW MYSELF but THERE IS NO I'

The plants are unremarkable in terms of aesthetic attraction. The downplaying of plant-appeal in the artwork concedes space for the short texts and thoughtful interaction with the audience, thus adding a readerly dimension to the work (Figure 4.7). In this work, I do not pursue the well-versed point that we should love plants because they are

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<sup>114</sup> But see *Plants as Persons: A Philosophical Botany* (Hall, 2011).

<sup>115</sup> A review of vegetable 'psukhe' (soul) from early Greek thought, through to Heidegger and Derrida can be found in Nealon (2016).

<sup>116</sup> The page numbers refer to the PDF version available on Academia.

[https://www.academia.edu/33618646/The\\_Minimal\\_Self](https://www.academia.edu/33618646/The_Minimal_Self) (accessed 05.05.19).

<sup>117</sup> *Thoughts on the self of a plant* (Charlston, 2017) was shown at the Grosvenor Gallery in Manchester, November 2017 and Righton Open Space, MMU from Dec 2017. A fifth plant was added in May 2018 with a caption that acknowledges our co-creative entanglement: WE DID THE GROWING TOGETHER.

beautiful, rather that plants share the paradox of detachment and dependency with us which places them beyond ownership.



Figure 4.7 Discussing *Thoughts on the Self of a Plant* (Charlston, 2017).

The temporary personification of these plants prompted further questions about growing supermarket fruit. Does the dependence imposed on the plants cast doubt on their 'self-direction' and 'self-organisation'? Does sympoietic growing-together encroach on the 'self' of plants? These are not questions to be answered but posing them brings attention to the complexity of the plant-artist relationship. In forming co-gential alliances when growing-with-plants, the emphasis changes from self-driven will to live to collective desire for collective symbiosis. This adjustment allows me to imagine briefly that collective desire to live may have prompted me to help the grapefruit grow. Or that, in its desire to live, the grapefruit became an agent of change capable of influencing my actions.

The idea of individual plant selves is not new to artists. In late 18<sup>th</sup> century Western art, portraits and poems about individual trees were fashionable.<sup>118</sup> Specimen oak trees for

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<sup>118</sup> Christiana Payne's survey of prints and drawings of culturally celebrated trees in the King's Topographical Collection at the British Library: [https://www.bl.uk/picturing-places/articles/remarkable-trees?utm\\_source=newsletter&utm\\_medium=email&utm\\_term=blog\\_1\\_button&utm\\_campaign=newsletter+August+2018](https://www.bl.uk/picturing-places/articles/remarkable-trees?utm_source=newsletter&utm_medium=email&utm_term=blog_1_button&utm_campaign=newsletter+August+2018) (accessed 23.06.19).

example were celebrated for their size, longevity, strength and beauty. They achieved special cultural significance when these characteristics were anthropomorphised in art and literature as noble, sacred or 'national'.

'The Oak is the first in the class of deciduous trees [...] as useful as it is beautiful. ...surely, no one who is a lover of his country, but in addition to the pleasure which he has in contemplating this noble plant, must feel his heart glow on reflecting, that from its produce springs the British Navy...'. William Gilpin, *Remarks on Forest Scenery* (1791)<sup>119</sup>

By contrast, contemporary photo-artist Frederik Busch brings attention to plant-selves by attributing names and thoughts to plants in his series *Photographs of German Business Plants*.<sup>120</sup> His captions expressing each plant's mood to match apparent anthropomorphic gestures, for example, of surprise or timidity, are endearing and humorous. While anthropomorphising plants may help me to identify with plants, it also acts as a source of plant de-coherence. Anthropomorphism is problematic for the sympoietic artist-grower because it has the potential to obscure plants' vegetal nature, wider relationality, ecological situatedness and agential potential. However, as discussed on pages 36-37, I am not arguing against all anthropomorphism but advocating that serious attention is given to the reasons for applying it, and the possible interpretations in each case.

The new materialist understanding of agency abandons the prevailing view that agency is confined to human intentional acts imposed on matter, thus providing theoretical foundations for endorsing plants as agentially-active partners in art practice. (Coole and Frost, 2010:10). 'Agential realism' is described by Barad as mutual intra-action, mutual response. Therefore agency is not a possession, but construed as a relational process, an enactment rather than a work of human intention (Dolphijn and van der Tuin, 2012:54, Barad, 2003:818).<sup>121</sup> Distributive agency, in which a single subject is not identified as the source of an effect (Bennett, 2010:21, 28), provides a frame of reference for mutual agency in plant-human relationality in sympoietic practice.

Seedlings seem to express an agential will to live when they sprout and grow. Figure 4.8 shows a series of sketches of a sprouting avocado on four consecutive days after turning

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<sup>119</sup> Quoted by Christiana Payne. See footnote 118.

<sup>120</sup> Featured in the *British Journal of Photography*, July 2018.

<sup>121</sup> In Barad's agential realist account of materiality, all matter is considered as actively agential in the process of the world's becoming. This intra-activity is performative (Barad, 2003).



the seed 90 degrees in a quasi-scientific art investigation. The stem growth changes direction, vigorously and intentionally pursuing the light directly above. Such teleonomy or apparent purposefulness may be illusory. The theory of autopoiesis, for example, dispenses with 'purpose' in the self-organisation of life processes. Autopoiesis refers only to its own self-organisation without any motivating preconditions or stimuli (Maturana and Varela, 1980 [1972]:85).

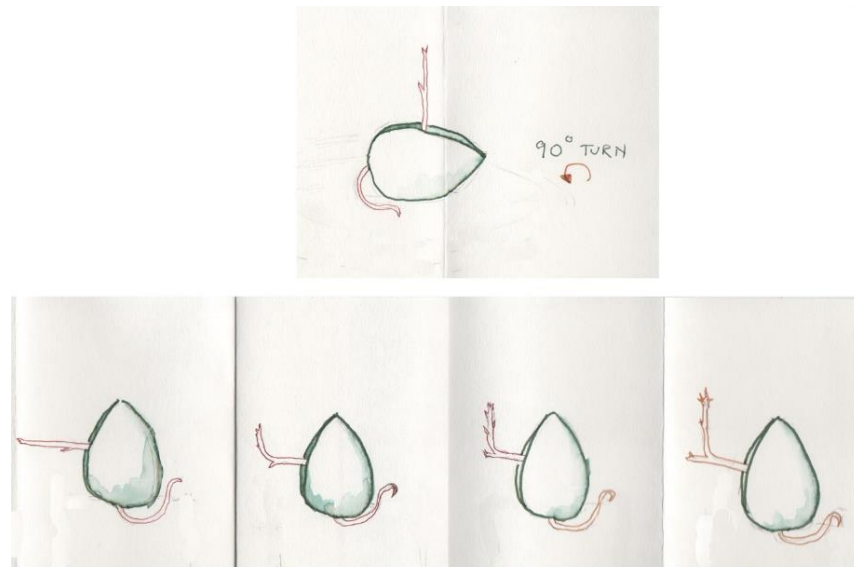


Figure 4.8 Sketches of a sprouting avocado on four consecutive days after turning the seed 90 degrees anticlockwise.

While it is a small step from autopoiesis to say that life is produced through its own agency, some writers take the idea further. Those quoted below in *The Final Breath* (Charlston, 2016) have interpreted the apparent will to live as 'desire', which is anthropomorphic, but more empowering for plants and tolerant of intrinsic agential capability. The sentiments in the poem signal a departure from theories of exceptional human agency and propose 'agency by desire' as the source of all life. Moreover, the proposition that a desire to live is capable of actively bringing life into being implies internal desire and autonomous individual existence. The poetic musings in *The Final Breath* arose from my notes taken during the residential course 'Enlivenment' at Schumacher College in April 2016, led by Andreas Weber.<sup>122</sup> Weber views the existence

<sup>122</sup> At the residential course 'Enlivenment' Held at Schumacher College, Dartington 25<sup>th</sup>–29<sup>th</sup> April 2016, Andreas Weber described his personal and poetic vision of interconnectedness through subjective

of organisms as a visible realisation of the desire to live (Weber, 2016:28), implying that a physical organism is produced by its own active desire.

*In the morning Andreas Weber said*

*'All beings share the yearning, which is their becoming, their embodiment. They come into being through a deep desire for life, a deep existential need'.*

*I frowned and doubted*

*but I kept the thought.*

*In the afternoon Karen Barad said*

*'Matter feels, converses, suffers, desires, yearns and remembers'<sup>123</sup>*

*I wondered*

*and I kept the thought.*

*In the evening Satish Kumar said*

*'Life breathes. Living things yearn for oxygen which sustains life.'*

*I thought about it.*

*In the deep night sleep I saw black coal,*

*the remains of giant ferns and mosses*

*millions of years underground, yet still the stuff of life.*

*I saw energy given to the coal, heat.*

*I felt the coal leap with desire for renewed life, for oxygen.*

*I saw the burst of flame.*

*The final breath.*

From the proto-artist-book *The Final Breath* (Charlston, 2016)

Tim Ingold criticises the logic of causation implied if human action is seen to be directed towards a passive recipient (Ingold, 2013:96). However, he sees no reason for extending

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experience. Weber was a student of Francisco Varela who, in 1972, co-founded the theory of autopoiesis as a distinguishing factor of living systems.

<sup>123</sup> Dolphijn and van der Tuin (2012:48).

agency beyond the human but would rather deny agency to humans and reformulate the terminology. Ingold proposes 'correlation' as an alternative word to replace the word agency altogether (Ingold, 2013, 2010:8).<sup>124</sup> While Ingold's use of the term 'correlation' successfully avoids the historical connotations of agency, it does not readily call for ethical considerations in the way 'mutual response' does in the new materialist model. The possibility of plant agency introduces multiple accountabilities to practice-as-research. If a plant is deemed to have (or be) a 'self', ethical considerations and moral rights of plants become more pressing (Hall, 2011, Marder, 2013).<sup>125</sup>

The concept of agency is the grit in the oyster, the irritant that keeps the discourse alive. Each new way of expressing relationality adds complexity and enriches understanding, providing the conditions for emergent ideas. Sympoietic practice is committed to plant agency in this co-creative interpretation, effectively de-objectifying plants, thus bringing them into the frame for ethical consideration. The acceptance of mutual agency is a starting point for dialogue regarding the position of plants in contemporary art practice, particularly in its co-creative endeavours.

The artist-book *Matters of Agency* (Charlston, 2017), lists ninety ways in which plants might be considered as agentially active (Figure 4.9). In compiling this leporello of spaced phrases I was aware of calling a halt to an indeterminate sequence of possibilities. When displayed fully extended, the book may also convey immensity to the reader who must walk six metres in order to read the complete list. It is not a question of proving or falsifying plant agency, rather, by entertaining the possibility of plant agency, we acknowledge plants as co-habitants and active members of our collective. Including plants in the notion of 'we' is a step on the way to more symbiotic future.<sup>126</sup>

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<sup>124</sup> Ingold also suggests 'tell' in place of articulation (a term used by Latour), also 'relation' in place of interaction and 'material flow' in place of embodiment.

<sup>125</sup> In April 2008 the Ethics Committee on Non-Human Biotechnology (ECNH) in Switzerland discussed the moral consideration of plants for their own sake <https://www.ekah.admin.ch/inhalte/ekah-dateien/dokumentation/publikationen/e-Broschure-Wurde-Pflanze-2008.pdf> (accessed 25.10.19).

<sup>126</sup> Implications of the term 'we' are discussed in the exhibition catalogue essay *The We of 'We': Rethinking Back to the Garden* (SNÆBJÖRNSDÓTTIR, B. & WILSON, M. 2014), available at <https://snaebjornsdottirwilson.com/publications/writings-by-the-artists/> (accessed 19.10.19).



Figure 4.9 Artist-book, *Matters of Agency* (Charlston, 2017).

This section has moved from the plants on a window ledge to thinking about implications of self, agency and ownership in growing processes through poetry and making books. Growing-with-plants as an enactment of non-exploitative, sympoietic art practice unearthed many unresolvable questions but also generated creative contexts for artistic speculation. When the intense plant-artist relationship of growing-with-plants begins to give way to a plant-gardener relationship, sympoietic, ethical intentions can be carried through to everyday experiences. In the next chapter, walking-with-plants activates new research questions thus extending sympoietic art practice as a provocative instrument of enquiry.

## CHAPTER 5

### WALKING-WITH-PLANTS

*To walk with plants is to live time differently, beyond clock-time. My sense of time melts away and merges with plant-time. The pace of time is in stepping, pausing, in the plants' inscrutable timelessness, in the pulse of our breathing together. I leave smudges of my presence in the place, a footprint, a fingerprint, marks, sounds. The plants daub their residues onto me and grow into my head. Co-agentially, sympoietically, we stretch moments, visit the past, contemplate boundlessness.*

*When moving through, alongside, between and towards plants for a sustained length of time, the sounds, smells, shapes and colours settle into familiarity. The subject-object relationship is destabilised, the objectified plant disappears, and thinking-with-plants begins to happen.*

*Fragment (Charlston, 2017)*

This chapter examines my connectivity with plants during performative<sup>127</sup> acts of walking-with-plants, coupled with ecosemiotic questioning. Walking-with-plants, in its many different forms, favours onto-epistemological being-as-knowing.<sup>128</sup> My dérives, qigong walking and plant-led walks unfold as largely non-intrusive, non-exploitative, ecologically situated and ethically contemplated offerings to plants, which are simultaneously nourishing, empathetic and thought provoking. Walking can be a mutual letting-be: '...letting other than humans be, a kind of conscious neglect, is also part of the task of care' (Puig de la Bellacasa, 2017:Loc 2581). The physical act of walking with apparently static plants becomes hypnotic when breathing adjusts to the sound and rhythm of regular pacing. However, as I will show, walking-with-plants can also be a

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<sup>127</sup> In 'posthuman performativity', interactive events between humans, non-humans and materials, are considered to be co-agential performative acts (Barad 2007:136).

<sup>128</sup> Barad's term 'onto-epistemology' asserts the co-existence of being and knowing. 'Onto-epistemology – the study of practices of knowing in being' (Barad, 2003:801-831).

source of plant de-coherence, particularly when cultural preconceptions interfere with the reception of plant signals.

### **Walking art**

Historically, walking art has been characterised by a solitary, sensory merging with landscape. Henry Thoreau's 'open-sensory sauntering' interspersed with poetry, is an almost obsessive adulation of wild nature. He starts his treatise *Walking*:

'I wish to speak a word for Nature, for absolute freedom and wildness, as contrasted with freedom and culture merely civil – to regard man as an inhabitant, or part and parcel of Nature, rather than a member of society' (Thoreau, 1862:2)

and later:

'...sauntering through the woods and over the hills and fields, absolutely free from all worldly engagements' (1862:6).

With these declarations, Thoreau makes a divisive split, cutting culture from nature to keep nature pure and wild, for himself. This is an opportunity to stress that the posthuman shift away from anthropocentrism does not deny or reject humans and human culture as Thoreau seems to. The concept of a nature-culture continuum views nature and culture as deeply entangled and inter-dependent and seeks acknowledgement of this. My sympoietic practice with plants is not an escape from people 'free from all worldly engagements', but is situated in the troublesome world.

Solitary walking art has often centred around the male ego.<sup>129</sup> Rebecca Solnit includes some women in her history of walking<sup>130</sup> but indicates that the walking art of many women has been suppressed in the past (Solnit, 2001:245). In 2015, walking artists Amy Sharrocks and Clare Qualmann were so incensed when a talk on walking art at the V&A made no mention of female artists,<sup>131</sup> that they initiated the Walking Women project.<sup>132</sup> Qualmann's public walks, which interrogate familiar places, are construed as

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<sup>129</sup> Kathleen Jamie captures the male ego in *A Lone Enraptured Male* (London Review of Books Vol. 30 No 5, 6 March 2008:25-27), her review of *Wild Places* by Robert Macfarlane (Granta, 2007). <https://www.lrb.co.uk/v30/n05/kathleen-jamie/a-lone-enraptured-male> (accessed 06.04.19).

<sup>130</sup> For example Virginia Woolf <https://www.bl.uk/collection-items/street-haunting-an-essay-by-virginia-woolf> (accessed 17.05.18).

<sup>131</sup> The talk by Will Self and Iain Sinclair, September 2015, is discussed at: <https://www.a-n.co.uk/news/walking-art-and-women-its-infuriating-to-be-invisible/> (accessed 04.03.19).

<sup>132</sup> A conversation thread in the Walking Artists Network features walking with nonhumans. While the examples discussed are animals, similar techniques can be applied to plants. Available at <http://www.walkingartistsnetwork.org/following-animals-artists-and-research/> (accessed 04.03.19).

live art performances and starting points for further artwork such as the publication *Ways to Wander: 54 ways to take a walk* (Hind and Qualmann, 2015). Qualmann joins other women walking artists who have introduced new elements into walking art.<sup>133</sup>

The walking *dérive* is associated with city walking and related to privilege of movement. Traditionally a masculine pursuit, it is tinged with the casual arrogance of the voyeuristic 'flâneur'.<sup>134</sup> Perhaps this is why Qualmann identifies her walking art as 'anti-dérive', she is keen to distance herself from these associations.<sup>135</sup> By contrast, I have selectively embraced aspects of the *dérive* to explore the city environment.

### **Walking quests with plants: the city *dérive***

For plant-led walks in urban settings, I developed a walking methodology informed by the *dérive* to discover how plants are experienced in everyday life in the, to me, unfamiliar city environment of Manchester. I was inspired by the idea of a *dérive* or randomly motivated walk, which offered flexibility to respond to discoveries. Guy Debord placed the *dérive* within the methodology of psychogeography, conceived as a sense of being-drawn-in to discover 'unities of ambience, currents and vortices in urban terrains' (Debord, 1958).<sup>136</sup> Debord's essays revel in the 'pleasing vagueness' of psychogeographical findings. Although chance is important, a *dérive* stroll is not aimless, rather a conscious opening up to attractions and meetings, a way of encouraging unusual experiences and 'playful-constructive behaviour'.

The act of walking provided me with time and space to think, relinquish control and allow random thoughts and speculations to spin off in new trajectories or clump together to form loose structures of gathered clippings, scribbles, books, sound recordings or other art outcomes. At times I was overwhelmed by uneasy doubts and ontological uncertainty in the dystopic emptiness of the city while on other occasions I was energised by the thrilling plant presence.

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<sup>133</sup> For example, Deirdre Heddon (group performance), Simone Kenyon (collaboration and dance) and Janet Cardiff (audio walking).

<sup>134</sup> In his essay *The Painter of Modern Life* (1863), Baudelaire introduced the flâneur as a man of leisure, a connoisseur of the street, an idle saunterer.

<sup>135</sup> [www.clarequalmann.co.uk/About.html](http://www.clarequalmann.co.uk/About.html) (accessed 20.10.18).

<sup>136</sup> Guy Debord (1931-1994), Marxist theorist and founding member of the *Situationist International* movement which played a role in the Paris uprising in 1968. Debord was influenced by Roland Barthes, who coined the phrase 'society of the spectacle'.

I undertook a series of plant-led walking dérives in the streets of Manchester, allowing time for plants to impinge and to influence the direction of walking. When my research took a more personal, ethnographic turn, plants came into focus as individuals with their own lively narrative agency. Each dérive had a distinctive flavour as I moved through the plant-deficient space, and each one provoked creative responses and questions. As I became more open to the attractions of plants, I set up playful instructions for the dérives (Appendix 1). For example, Dérive 1: *In a walk from x to y take two turnings away from the final destination. Continue to take turnings away from the final destination until the sight of a plant makes you happy.* Responding to the dérive instructions was a challenging experience, evoked in the artist-book *A Turning Dérive* (Figure 5.1).

*I left Piccadilly Station from the other entrance and took two turnings in the opposite direction to my final destination. The first turning curved away from the thoroughfare where occasional trees had given a sense of spring.*

*There were roadworks, barriers and cones. Two men were coming towards me. I crossed over. A van was approaching from behind and slowing down. I quickened my step. This was the hostile city I feared.*

*Another corner, another narrow road, plants growing in the cracks and corners, green algae forming on the pavement*

*At the next turn, a giant mural of joyful plants and birds, and beneath it yellow flowering ragwort as if in response.*

*A coming-together of nature and culture.*

Extracts from the artist-book, *A Turning Dérive* (Charlston, 2015)



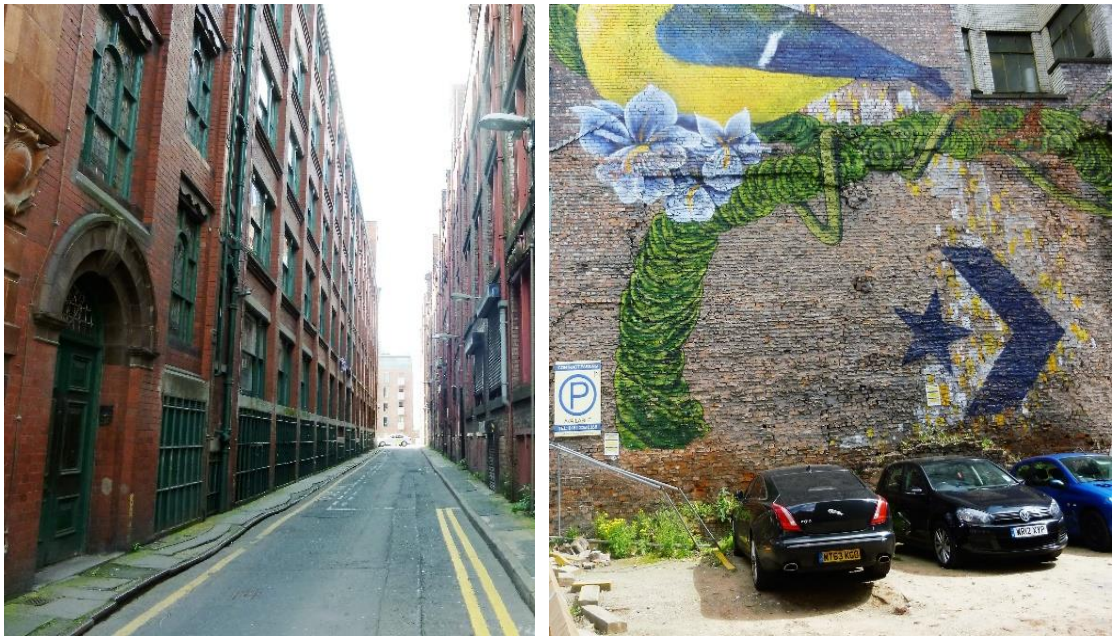


Figure 5.1 Images from the artist-book, *A Turning Dérive* (Charlston, 2015).

Walking practice enriched both my receptivity to plant-related signs in the city and my empathy for the urban environment. However, psychogeographic searchings of the urban environment are particularly concerned with commodity and consumption. During *dérive* walks I was bombarded with evidence of plant de-coherence: appropriation of plants for decoration, food, clothing, cosmetics, furniture, fuel and for enjoyment and well-being; plants used as symbols of love, death or celebration. There were also processed plants: coffee, wine, tea, bread in garish advertisements. Debord's warnings about the consumption of 'spectacle' resonate with the way spectacular representations and distortions of plants vie with the attempt to articulate thoughtfully. Martin Hughes-Games of the BBC *Springwatch* series voices his misgivings about virtual experiences of nature: '...we have created a form of entertainment rather than a force for conservation; a utopian world that bears no resemblance to the reality'.<sup>137</sup> I envisage Debord nodding grimly from the pages of *Society of the Spectacle* (2010 [1967]). Debord's warnings, support connections between exploitation and global warming (Klein, 2014:157, Demos, 2017:54) flagging the serious consequences of plant

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<sup>137</sup> Quoted in a Guardian article (Howard, 2015) Available at: <https://www.theguardian.com/environment/2015/oct/30/autumnwatch-style-wildlife-programmes-dont-help-conservation-says-presenter> (accessed 23.04.19).

commodification. While commodification of plants is a concern, collecting examples of negative human impact skimmed the surface of a complex situation and prompted a moralising tone in my research. Debord's emphasis on anti-capitalism (2008[1971]:88) did not correspond fully with my broader investigation into multiple influences and the relationships of plants and people. Positive encounters with plants were easily obscured, and moments of wonder and surprise devalued. Making artist-books alerted me to the negativity of looking for signs of division. These books remained static while books initiated by positive encounters grew over time and provoked wide-ranging responses. The ethic of domination which allows exploitation of plants is ingrained in the Western belief in exceptional human agency, but in order to move to a more affirmative position it is necessary to shift human activities from centre stage and listen to other voices.

It is useful to turn to Jesper Hoffmeyer, who draws on Gregory Bateson (1972) to develop the idea that language is only one of many methods of communication. Hoffmeyer's emphasis of 'semiotic freedom' crucially leaves room for many different interpretations and includes an acceptance of mistakes: 'even those who are willing to listen have difficulty in hearing what nature has to say' (Hoffmeyer, 1996:130). The difficulty of hearing what plants have to say is intensified when walking in the city, which Hoffmeyer views as 'a kind of semiotic maelstrom' (1996:143). A hotchpotch of signs characteristic of de-coherence, is produced when humans respond to readings and misreadings of their surroundings. Stumbling often happens when walking in the urban environment.

### **Ecosemiotics in artistic fieldwork with plants**

Although *dérive* methods allowed open-ended discoveries, the broadening of scope to encompass complex plant relationality in urban and rural contexts as well as domestic and artistic scenarios, required a research tool for interpreting plant encounters in situ. Ecosemiotic enquiry (Maran and Kull, 2014)<sup>138</sup> provides interpretive flexibility for understanding non-linguistic signs which surround plants, including cultural associations.

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<sup>138</sup> Ecosemiotics has been developed largely at the University of Tartu in Estonia since it was established in 1998 by Winfried Nöth and Kalevi Kull. The history and formal analytical capabilities of ecosemiotics are described in Maran's overview, *Two Decades of Ecosemiotics in Tartu* (2018).

While resisting a digression into semiotic theories, it is necessary to understand the basic principles of ecosemiotics in order to apply them in practice. Eight core principles of ecosemiotics emphasise ties of communication or 'semiotic bonds' which are shared by all life (Maran and Kull, 2014:41-47). Non-linguistic sign recognition across species evokes responses which continually feed back into the ecosystem. Thus, the ecosystem both forms and is formed by semiotic bonds. I imagine semiotic feedback playing out when animals smell a forest fire. Alarmed by the sign of fire, they all move away in the same direction, changing the environment by trampling plants, dispersing seeds, and altering feeding patterns. Fire changes the ecosystem but responses to the signs of fire also change the ecosystem. Human activity may play a part in the forest fire scenario by starting the fire or responding to it by digging trenches or spraying water, thus shaping the natural environment. The ecosemiotic principle of shared sign relations offers significant additional support to the inseparability of culture and nature in binding ties of interdependence and physical interaction.

Jakob von Uexküll's theory of meaning, in which he discusses '*Umwelt*' or 'subjective environment' (von Uexküll, 1982), was a seminal influence on the development of ecosemiotics.<sup>139</sup> To exemplify his *Umwelt* theory, Uexküll considers what a 'blooming meadow flower', signifies in the *Umwelt* of a girl, an ant, a cicada-larva and a cow (1982:29). It is plausible that, from their special perspectives, they will read signs differently and attach different values to the plant. However, through sympoiesis, I explore possibilities for a less predictable, but more adaptive, collective worlding in which individual responses are seen to relate to situations and contexts rather than pre-determined internal attributes.

There are intersections between ecosemiotics and new materialist discourse. Von Uexküll's *Umwelt* could be understood in terms of 'relational material-semiotic worlding' (Haraway, 2016:12)<sup>140</sup>. Thomas Sebeok's semiotic thesis 'The world is composed entirely of signs' (Petrilli and Ponzio, 2001:7) can be compared to Barad's thesis 'matter and meaning are mutually articulated' (Barad, 2007:152). In both cases, signals may be unconscious and may or may not result in communication. The co-existence of matter and meaning is fundamental to feminist new materialism (Barad,

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<sup>139</sup> The cultural semiotics of Juri Lotman (1990) was also a strong influence on ecosemiotic theory.

<sup>140</sup> Haraway's material-semiotic worlding differs from Uexküll's '*Umwelt*' or 'subjective world' which implies that similar creatures have predictably similar, limited world views.

2003:152).<sup>141</sup> Narrative is entangled with matter, thus plants are rendered 'storied matter' through their 'narrative agency' (Oppermann, 2014:28-32). In this context, ecosemiotics responds to the narrative agency of plants, offering a means of being instructed by plants instead of constructing stories around them.

Plant scientist Anthony Trewavas recognises plant-to-plant and environment-to-plant communication (2015:74) when stimuli such as temperature, day-length and the angle of sunlight inform plants of seasonal changes while persistent shadows and underground chemicals flag the presence of other plants. The plants respond with differential growth or changes in leaf activity. Ecosemiotics recognises that mutual responses when human activities intersect semiotically with environmental conditions change micro-situations as well as wider intra-environmental and inter-species relationships.

For the purposes of this project, three types of sign are recognised, which convey ideas by setting up associations. Originally identified by Charles Sanders Peirce,<sup>142</sup> the three forms of signalling assist in the differentiation of linguistic and pre-linguistic signs (Chandler, 2007:38-42). *Symbolic*, *indexical* and *iconic* signs are characterised by the particular relationship between the sign itself and what it stands for at the moment of interpretation. '*Symbolic*' signs communicate by means of shared conventions. Symbolic references assigned to plants are usually unrelated to the life of the plant, for example, a red rose symbolises love in certain cultures but there is no intrinsic connection between red roses and love. Symbols are often culturally understood linguistic messages. The plant names *forget-me-not* and *daisy* are symbols not inherent to the plants themselves. '*Indexical*' signs point out connections through physical attributes and may be entirely visual – a yellowing leaf is an indexical sign of autumn. An indexical sign may also work by association – a palm tree brings a tropical beach to mind (see *Reading the Palm* on pages 69-70). '*Iconic*' signs look like, sound like or feel like what they stand for, – artificial grass looks like real grass and thus refers iconically to grass.

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<sup>141</sup> Barad's term 'onto-epistemology' also suggests that being and knowing are co-existent.

<sup>142</sup> While Saussure's model implied a linear relationship between the *signifier* and the *signified*, Charles Sander Peirce's doctrine of signs proposed a multidirectional network of signs in which interpretation is influenced by context and the interpreter. Ecosemiotics is founded on these Peircean principles. Some Peircean ideas have also been adopted by structuralist semioticians, through Jakobson and Umberto Eco (Chandler, 2007).

The examples given do not limit or fix implications to the signs. A red rose is not only a symbol but can also be read as an indexical sign pointing to summer or to my grandmother's garden. If a single red rose is taken to stand for red roses in general, this would be an iconic sign. Thus, a sign may be read symbolically, indexically and iconically at the same time or by different people at different times and in different circumstances. Natural signs are often indexical because they indicate intra-environmental connections and point to actual situations or events. Plants also make iconic signals when they use mimicry, for example, the bee orchid looks like a bee in order to attract bees.

Ecosemiotics provides a conceptual tool to interpret plant relationality in ecological contexts. How does the enquiry work in art practice, during plant-dérives? At first, ecosemiotic theory seemed to vie with the psychogeographic spirit of serendipitous discovery. Trying to identify each sign as *symbolic*, *iconic* or *indexical* in Peircean terms, I initially recorded observations as tables of results. This quasi-scientific categorising as a detached onlooker referred back to the theory rather than deepening my understanding of plant relations. However, as I became sensitised to plant-related signs and their communicative capability, I realised that each ecosemiotic interpretation is unique to a situated personal response. I formulated a set of questions, prompted by the ecosemiotic principles, which could be applied to simple observations of plants in situ: - *How does the plant show signs of situation, time and place? Is the plant thriving? How did this plant get here? What do I feel about the plant? What inter-relations are signalled? Who or what benefits from this plant?* These questions, directly targeting plant signals, changed the emphasis from observation, analysis or even simply sensing, to interpreting situations through artistic research.

An art-inspired ecosemiotic reading brings tacit knowledge into conscious consideration, thereby revealing a network of connections. My proto-artist-book *Plant Dérive: a catalogue of plant consumption (Charlston, 2015)*<sup>143</sup> opens out to form a hand drawn map with pasted images of cotton t-shirts, cardboard cartons, bread, chocolate, wood, rubber, plastics<sup>144</sup> and advertisements of plant products: tea, sweets, coffee,

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<sup>143</sup> *Plant Dérive: a catalogue of plant consumption* was made after completing dérive 2 and dérive 3 (see Appendix 1).

<sup>144</sup> The crude oil and natural gas used to synthesise plastics contains plant cellulose and fossilised phytoplankton. <https://www.plasticseurope.org/en/about-plastics/what-are-plastics> (accessed 09.04.19).

beer, wine, biscuits, smoothies, tobacco, and imported fruit, a catalogue of obvious exploitation, genderising, and disregard of plants (Figure 5.2).

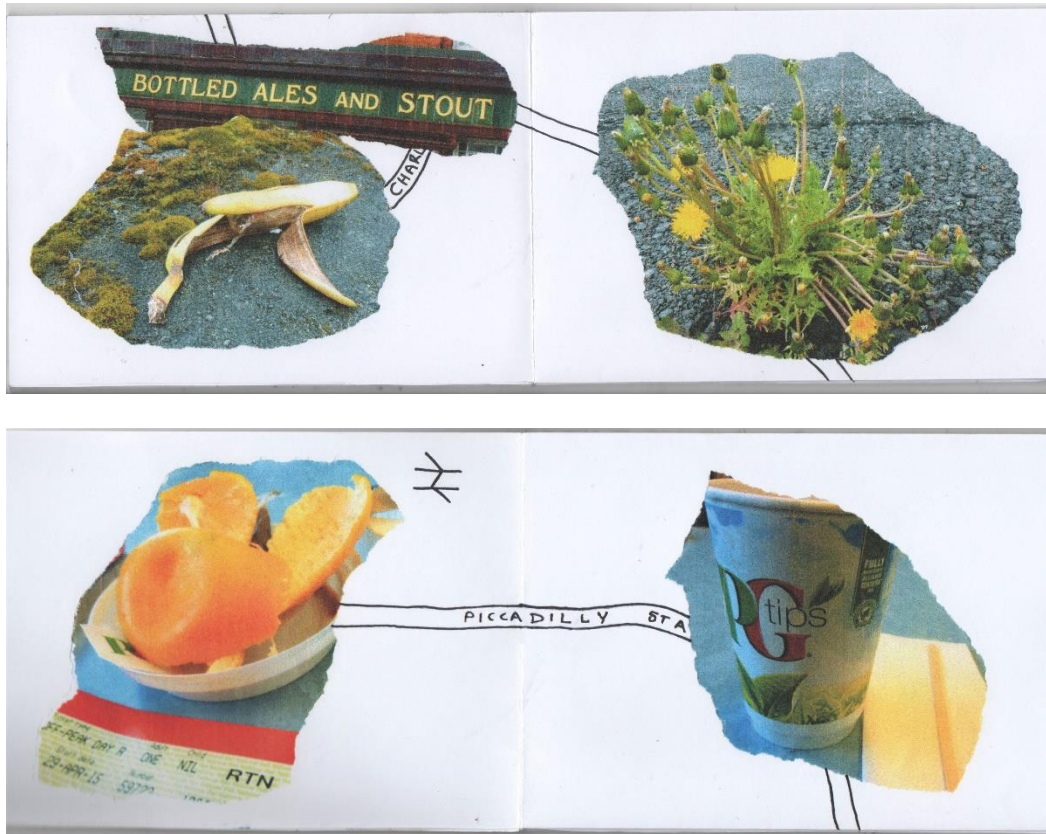


Figure 5.2 Images from *Plant Dérive: a catalogue of plant consumption* (Charlston, 2015).

Ecosemiotic questions work with the narrative agency of the plants to disclose their stories. Questioning plant products took me through layers of plant de-coherence. *How did this plant get here?* I am reminded that plant products are largely sourced from distant places and so highly processed that connection with living plants is lost. Further probing: *who or what benefits from this plant?* The mesh of semiotic bonds extends to rainforests, vineyards, plantations, money, exploitation, the pleasure of eating, waste, shipping containers, fat cats, obesity, monoculture, starvation, celebration, complicity of the consumer, landfill, packaging, and so on.

Continuing the ecosemiotic questioning reveals personal semiotic connections more specific to time and place. *What inter-relations are signalled?* I discovered resonances with people and places in my own life. The sign for Bottled Ales and Stout connects with my father who drank beer. He also grew the barley that made the malt that went into

the beer that he drank. For me, beer points to both 'plant' and 'father' not immediately to division and exploitation. As theory recedes, plants themselves assume a more active presence and further questions surface. Was the decision to grow tulips in this border prompted by the plants? Where does the agency reside?

My first ecosemiotic 'readings' were interpretations of the human causes and effects. I perceived plants as cramped, stunted or struggling to exist in the anthropogenic urban habitats. Thinking more closely with the plants, I saw they were not necessarily sick but growing and adapting to their situation. The Buddleia in my garden achieves at least eight feet of growth every year. By judging this bush as more successful or better than smaller bushes I had been unconsciously swayed by the competitive 'bigger is better' narrative. The 'stunted' plants are flowering and bearing seeds just the same. I began to see the possibility of potential plants growing everywhere in the city if they were not continually kept in check.

*Out of the grimy ache of the city the potential plant emerges from the lack.*

*Green glows in desolate corners, tendrils coil around cold railings*

*Stems lean on concrete.*

Fragment (Charlston, 2015)

Continuing this fantasy, the proto-artist-book *Potential Plant* (Charlston, 2015) creates the impression of leaflike growth in urban settings where there are no plants. Cut-through leaf shapes along the spine of the book allow light to shine onto green paper beneath when the pages are turned (Figure 5.3). The area featured in the book has since been occupied by shops, one of which sells plants. Plants are now present in this place, not freely growing as I fantasised, but as a commodity. This could be lamented as a sign of our 'sick planet' (Debord, 2008[1971]:81) or conversely, seen as a positive example of plants continuing to thrive in present circumstances. While I have seen the plants as silent witnesses of their own enslavement and degradation during urban dérives, as I dug deeper, I discovered positive initiatives and people who are passionate about

plants.<sup>145</sup> I also felt the vigour, resilience and indestructability of plants in the tiniest ‘weeds’ and in the most human-dominated amenities. The individual vulnerability of plants seemed at odds with plants’ collective endurance, across millions of years. Paradoxically, plants have survived changing conditions potentially more devastating than the Anthropocene in spite of the frailty of individual plants, so easy to damage or destroy.

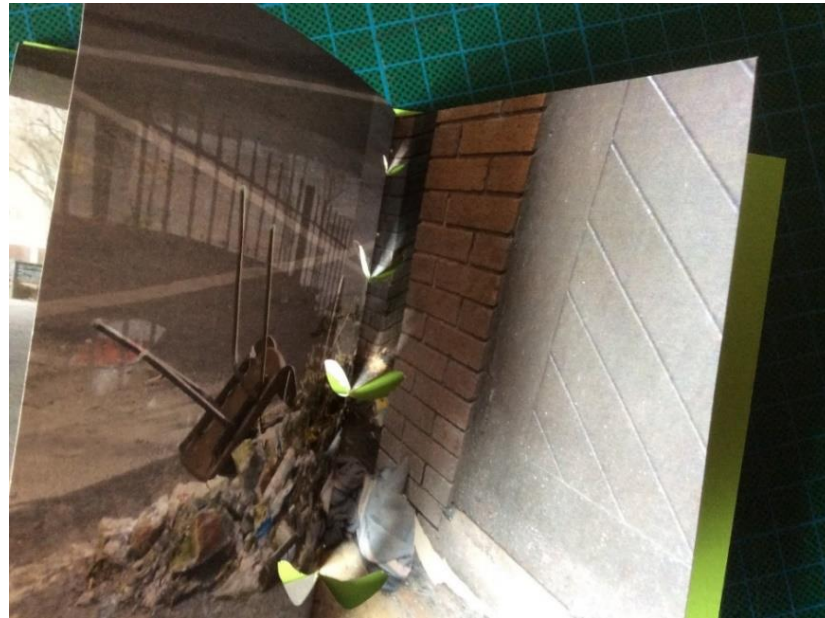


Figure 5.3 Proto-artist-book, *Potential Plant* (Charlston, 2015).

There are very few examples of ecosemiotic methods in art practice. However, Timo Maran’s discussion of ecosemiotics in his ecocritical approach to nature writing is relevant (Maran, 2010). For Maran, the environment is a communicative interface which retains traces of semiotic activity, such as territorial markings and human interventions which can be ‘read like text’ (Maran, 2007:288). For his ecosemiotic reading, the different relationships between writer, text, reader and nature are examined. By analogy, I construe the initial process of communication as listening, seeing and reading the ecosemiotic signals offered through the narrative agency of every plant. During walks, co-creativity with plants takes place at moments of indexical transfer which urge the attitudes, listening, thinking, the struggles, commitments, sharings and ethical

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<sup>145</sup> For example, Hulme Community Garden Centre, <https://hulmegardencentre.org.uk>, City of Trees <https://www.cityoftrees.org.uk> (accessed 08.06.19).



approaches to practical actions. These processes and performative exchanges of 'worlding-with' plants are the mattering of sympoietic practice.

Following a set of *dérive* instructions (Appendix 1, *dérive* 4) I stayed for five minutes with plants which caught my attention, probing the narrative agency of the plants through spontaneous writing. The open nature of the *dérives* combined with the interpretive flexibility of ecosemiotics allowed me to welcome puzzling contradictions and unexpected glintings. Ecosemiotic vocabulary added a new dimension to my research, a friendly way of questioning plant situations and wider interconnecting relationships. In this way, I began to form a possible sequence of events leading up to the situation of each plant. Figure 5.4 depicts one of the naturalcultural narratives which intermingle in the proto-artist-book *Plant Stories* (Charlston, 2016). This story formed around a single barley plant which grew and ripened in a city car park: '*the bird feeder/the flight/the beak/the opportunity*'/.



Figure 5.4 Image from the proto-artist-book, *Plant Stories* (Charlston, 2017).

The poetics and production of the artist-book negotiates an intersemiotic switch from non-linguistic plant-related signals revealed by ecosemiotics to text-driven, multimodal, social semiotics more readily accessible to humans. Thus, ecosemiotics and multimodality form mutually supportive methods for sympoietic processes. A second naturalcultural 'plant story' arose from floral tributes attached to railings. Plant de-

coherence happens when plants are used to symbolise love or point indexically to the brevity of life when the flowers fade and die (Figure 5.5). The inclusion of plants in human culture could be said to elevate the status of the plant. Nealon notes that Greek thought considers plants as 'improved by cultivation' (2016:30-31). Marder follows up the same point: 'woods await elevation' by humans when they use wood for a 'higher purpose' than the low uncontrolled growth suffered by plants (2013:30-31). In terms of de-coherence, however, vegetal nature is distorted rather than elevated when plants are appropriated for human communication. A more equitable artistic naturalcultural exchange sees both plants and humans affecting and being affected by each other to form a sympoietic relationship.



Figure 5.5 Image from the proto-artist-book, *Plant Stories* (Charlston, 2017).

*'the knifing/the nightclub/the sacrifice/life decaying/grief decaying/'*.

### **Walking quests with plants: *Moss Buzz***

A small cushion of moss growing on a wall at the base of iron railings dazzled me with its vivid colour and tiny green stars in the grey street. It became a strong centre of attraction for me, taking on a personal significance as our stories intertwined (see

Appendix 1, dérive 5). The moss conveyed ingenuity, endurance, tenacity, and told the story of survival as well as vulnerability.<sup>146</sup>

Throughout a year of walking, I furtively pointed my camera at the moss each time I passed, as though stealing something precious. The visits were recorded in an expanding concertina structure to which I added a photograph after each visit, marking my presence and dedication, attending the same place over and over again. The extending proto-book *Resilience of Moss* (Charlston, 2015) unfolds from a tiny object held in the palm of one hand. The reader may open it tentatively or release it in a flowing gesture of expansion, enjoying the freedom of movement, or alarmed by loss of control (Figure 5.6). However, the flowing sequence of the images did not match my disjointed encounters with the moss. The changing conditions were better expressed by physically turning pages. The proto-book developed into the editioned artist-book *Moss Buzz: 22 walks to the same place* (Charlston, 2016).

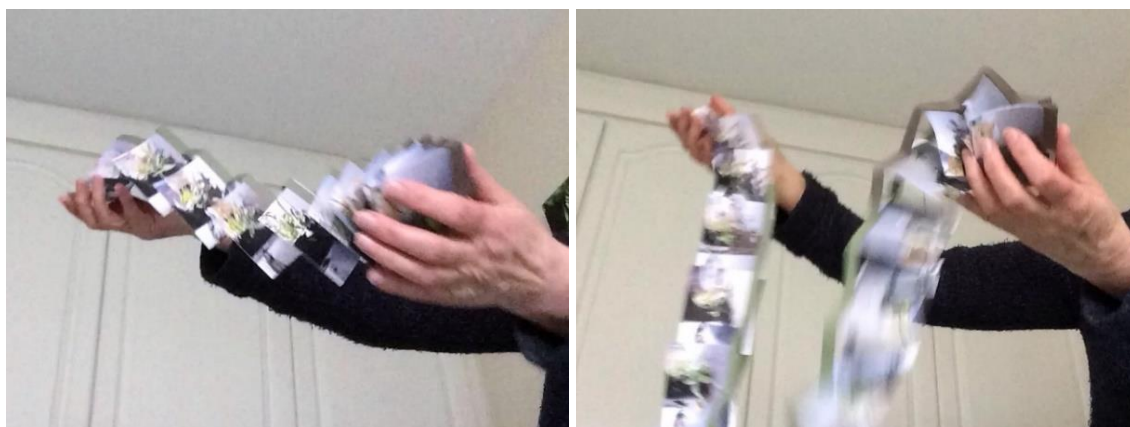


Figure 5.6 Handling the proto-artist-book, *Resilience of Moss* (Charlston, 2015).  
Alarming loss of control or enjoyable freedom of movement.

The book design of *Moss Buzz* emanates a flavour of the surroundings. Green stitching populates the area near the wire binding but does not venture far into the grey cover, mimicking the way moss gathers near the iron railings. A Sol LeWitt-style 'photogrid'<sup>147</sup>

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<sup>146</sup> In his observations of moss, John Ruskin speculated about how the cushion shape is formed (Ruskin, 1888:Chapter1) available at: [www.gutenberg.org/files/20421/20421-h/20421-h.htm](http://www.gutenberg.org/files/20421/20421-h/20421-h.htm) (accessed 11.11.2019)

<sup>147</sup> The basic layout of Sol LeWitt's photogrids can be viewed at <https://www.wallpaper.com/art/sol-lewitt-artists-books> (accessed 05/11/19). Typically, 9 square images are arranged on a square page with white space surrounding each image.

with nine repeated images on each page creates new patterns and tells of the camera clicks which generated multiple views of the moss at each visit (Figure 5.7). One image is cut away to reveal the next, anticipated visit. The printed date on each image invokes the presence of the photographer, the camera and the moss at that moment. The irregularity of visits, the changing camera perspectives and variable quality of the photographs are eloquent of the way light, shadows, air movement, sounds, smells, mood and people combined to change the atmosphere around the moss as time passed.



Figure 5.7 *Moss Buzz: 22 walks to the same place* (Charlston, 2016). Edition of 50 copies.

I watched the life cycle of the moss unfold. The moss flourished in November, bright and fresh compared with the grimy streets, bore fruiting bodies in spring and gradually dried out and disintegrated during the summer, changing from vivid green to crumbling brown. When other plants began to fade in autumn, the moss became fresh and green again. Why are their cycles so different? Imagine the moss in its woodland niche, clinging to low damp places. In summer, leaves block the rain and light. The complementary life cycles indicate (indexically) a long relationship with trees. I noticed too that the dry moss in late summer became a snare for seeds, a sign of another relationship between the moss and surrounding plants. As time passed, situations changed. Objects appeared and disappeared, entering and leaving the story. A web of connections formed around the moss through my attention, repeated visits, photographs, memories and through others

who seemed to favour this place to leave their apple cores, empty bottles and chewing gum. My visits and photographs are mere fragments of a multiplicity of overlapping narratives.

The moss story ends abruptly. After a year, the railings were boarded up by developers, the moss swept away. Graffiti marked the place where the moss once grew (Figure 5.8). A telling caption, 'A place for people to achieve extraordinary things', inadvertently gestured towards the empty space. Signs that the semiotic buzz sings-on, a buzz of excitement, a signal to be interpreted, part of the semiotic backdrop to the city.<sup>148</sup>

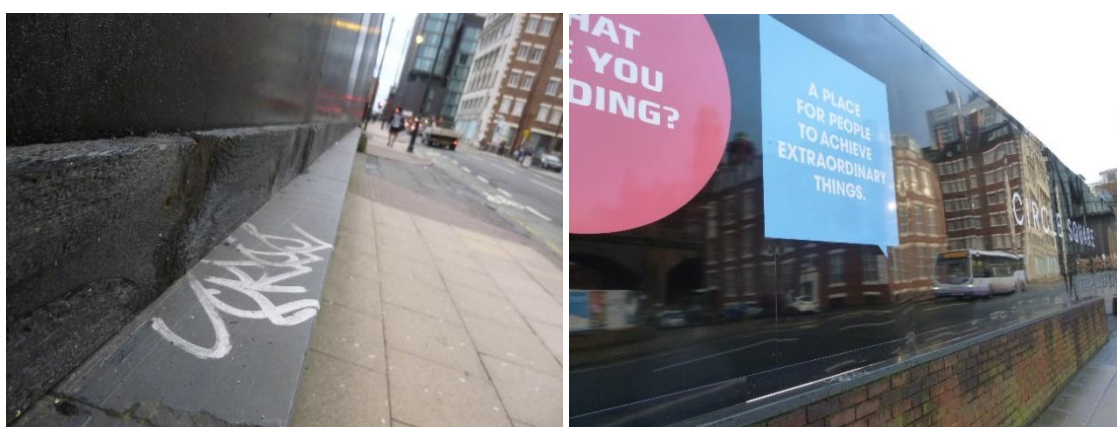


Figure 5.8 Left: Graffiti marks the place where the moss once grew.  
Right: A caption inadvertently gestures towards the empty space.

### **Walking quests with plants in the countryside**

Walking-art in the countryside has connections with book-art. Anne Moeglin-Delcroix (2015) sees the 1960s emergence of the artist-book, in its 'desertion of the studio', as a factor in the rise of walking-art. She describes walking art as a turn away from anthropocentric landscape representation towards 'a more authentic relationship with nature' and 'a deliberate way of being in the world rather than before it' (2015:5-6). In this case, is 'the world' a trampled world in which plants are entwined in everyday life, or is it the precious, aestheticised natural world enjoyed by Thoreau? Some answers can be found in the trajectory of Hamish Fulton's practice.

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<sup>148</sup> In July 2019 as I work on a draft of this thesis, a thirty-four-storey tower-block is growing where the cushion of moss once lived.

Fulton is one of three walking artists who make books, discussed by Moeglin-Delcroix. He considers walking itself to be a form of art (Fulton, 2012:6). In order to promote the status of walking to an artistic act, he shuns evocative representation, purposefully showing artwork which is 'visibly detached from the lived experience' (Moeglin-Delcroix, 2015:14-15), which contrasts with my attempt to reduce the gap between a lived experience and representation of it. Fulton chooses to leave no deliberate traces of his solitary presence in the natural environment, unlike some walking artists who rearrange natural materials to form temporary artworks or 'textworks' in the landscape.<sup>149</sup> Fulton's early solitary and often arduous walks in the 1970s and 80s are recorded in artist-books with short sentences, single words and sometimes unexceptional images. (2012:24,36). The sparse words migrated to the walls of exhibition spaces, and, more recently to advertisements and video games. He also designs and leads communal 'slowwalks' which are conducted in silence<sup>150</sup>

Fulton's separation of ecologically-situated walking from galleried artworks and artist-books is interesting for sympoietic walking practice with plants. On the one hand, plants are unspoiled and un-exploited by the art processes, while on the other hand, the distancing from messy entanglements between people and plants seems to work against the formation of interactive, inclusive relationships. Nevertheless, Fulton's artist-book *Song of the Skylark* (1982) remains one of my personal favourites. Measured text and lack of imagery leave room for spacious breathing and expansive poetic imagination. The lack of heavily evocative language and representational imagery allows me, as a reader, to appreciate the flickering glimpses of each walk in my own way. While my writing inclines towards narrative complexity and poetic outpourings, I can appreciate the strength of simplicity in Fulton's work.

The artist-book *Cat-Walking Through the Woods* (Charlston, 2017) is part of my lived experience of walking in woodland. Plants are said to be unaware of sound (Chamovitz, 2012:106), and yet the sounds of plants can be heard in the tranquil countryside away from traffic and noise: rustle, snap, click, sough, scrape, tap, jostle, creak, flutter, thud, echo all around me, joined by companion species that croak, buzz, chirp, warble, purr,

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<sup>149</sup> For example Richard Long, Andy Goldsworthy, David Nash who are better described as environmental or land artists because they walk partly in order to make their interventions.

<sup>150</sup> For example, *Slowwalk* (2011), a very slow group walk in the Turbine Hall of Tate Modern in support of Ai Weiwei during his 81 days in custody (Fulton, 2012:24).

yelp, laugh, shout. While sensory experiences provide an obvious means of developing an appreciation of plants (Ryan, 2012:Loc4142, 7117), qigong walking practice proffers a meditative means of being with plants in which this human sensing is disengaged thus possibly reducing the de-coherence arising from transitions across the sensory mismatch. Qigong 'cat-walking' is a light, gliding walk with a level gaze detached from sharp visual details. Breathing is slow and rhythmic. Steps are small with legs slightly bent, soft knees. Wrists are placed lightly at the small of the back. Careful placing of the foot, toe first completes the cat-like movement.

On one occasion, as I cat-walked through the woods<sup>151</sup> during a group residency at the Sidney Nolan Trust in June 2017<sup>152</sup>, no longer alert to the rustle of every leaf, I experienced a different kind of sensory involvement with the plants. The trees became a blur of yellow lichen and green algae against a white sky (Figure 5.9). I experienced a trance-like impression of nomadic branches gliding slowly past, as if they were on the move, not me. Damp smelling ferns and mosses underfoot were barely disturbed. With spontaneous pastel drawings, I relived these walking impressions while they were fresh in my mind. I was surrounded by greens and yellows, which gradually covered my palms from the coloured pastels. The digitised images appear in the pages of more than one artist-book. On some of the pages I have added smudges of green pastel which will transfer onto readers' hands.

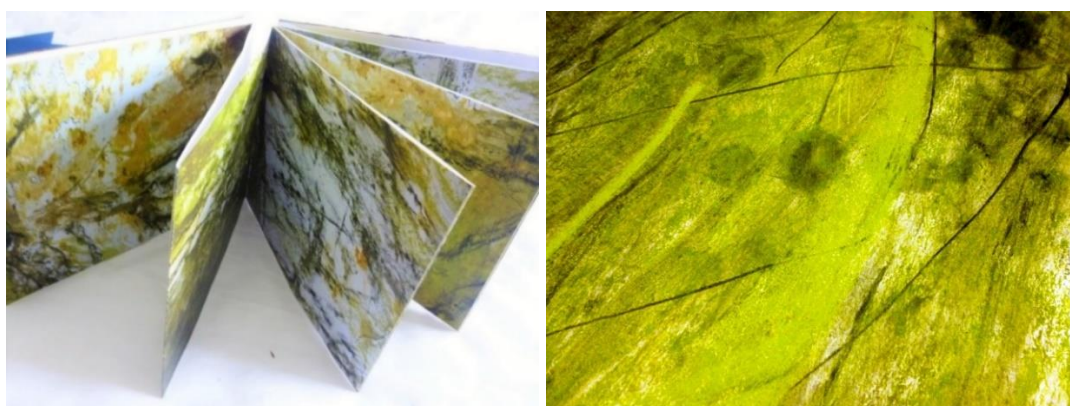


Figure 5.9 Artist-book, *Cat-Walking Through the Woods* (Charlston, 2017).

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<sup>151</sup> See Appendix 1, dérive 6.

<sup>152</sup> Artists' Camp Residency, The Sidney Nolan Trust, Powys. 26 June-1 July 2017.

## Being still with plants

In Chapter 2, I imparted some of my contradictory emotions when I attempted to empathise with plants by burying my arm in the ground (Figures 2.1, 2.2). Enforced stillness interrupts the sense of mutuality with plants, my attention turns towards myself, I imagine ants crawling on skin, someone is behind me, hours have passed. I feel flimsy and impulsive in my restlessness beside the inscrutable endurance of plants. Pausing, by contrast, is a feature of any walk. A natural rhythm is set up when walking is interspersed with interludes of resting. Relaxing into stillness during a walk, pausing to rest, to listen, to touch, to breathe deeply and to draw, I am in-step with the plants around me. *Crab Apple Year* (Charlston, 2019) maps temporal changes in a young crab apple tree with a series of sketches over a period of one year (Figure 5.10).



Figure 5.10 Images from the artist-book, *Crab Apple Year* (Charlston, 2018-2019).



By regularly pausing and paying attention to this tree as part of a walk, I became acutely aware of small temporal changes, the swelling buds, the changing colours of the leaves, blossoms, fruits and branches, that is, changes across time rather than the spatial patterns revealed when moving past plants. Plants operate in a timescale 'niche' so different from humans that many of their activities cannot be perceived at a human pace. Responses of a plant, such as tendrils reaching out for something to twine around, leaves and flowers rotating to face the sun and roots feeling their way underground, are not apparent as real-time movements. The apparent absence of directed movement in plants has been misinterpreted as a lack of response. This denigrating cultural interpretation creates a stronger de-coherence effect than the temporal mismatch itself. *Crab Apple Year* can be compared to *Moss Buzz* (Pages 107-109), which features photographs of a single cushion of moss over a one-year span. In the case of *Moss Buzz*, the incongruity of the grimy city environment was included in the book while poetry marked my presence and feelings. However, the selected images from *Crab Apple Year* show no such awareness of the surroundings. The lack of attention to surrounding bushes could be attributed to plant blindness when I overlooked other plant-life to focus on my chosen object of art.

Recent scientific advances in the understanding of plant intelligence (Mancuso and Viola, 2015, Trewavas, 2015, Chamovitz, 2012) provoke artistic speculation about how plants experience their world, particularly human presence in it. The subjective Umwelt of a plant must be so different from mine that it can hardly be imagined (von Uexküll, 1982). On one occasion, I stood near the pear tree wondering in what form, if at all, I might be detectable to the tree. Could the tree become aware of my presence eventually? Not as a visible body, the tree has no eyes. But plants can detect light and shade. Perhaps, to the plant, I am a blur, a murmur, an aroma, a vibration a shape or an aura. I may be concentrated into one spot or dispersed as a vague presence. Perhaps thoughts are more perceptible to a plant than physical bodies? Am I to the plant another intelligence, a process? Can I be detected by the plant as a shimmer, a shadow, a tingling or a shudder, a mist, a flush of light or a glow of warmth? Perhaps there are no words to describe what I am to the plant. I might be an indescribable colour, an impossible delight or an unimaginable threat. The plant's world and my presence in it might be entirely beyond description. Some of these speculations appear in the artist-book *to this rose I am a warm cloud* (Charlston, 2019), shown in Figure 5.11.



Figure 5.11 Artist-book, *to this rose I am a warm cloud* (Charlston, 2019).

Speculating further, one blade of grass would be unlikely to register my presence, even if I could be motionless for days. A woodland with mycorrhizal connectivity, however, might constitute extensive brain-like activity through which a moving presence could reverberate. I am reminded of an empowering collective experience entitled *Mycorrhizal Meditation* performed by Fiona Macdonald at a conference.<sup>153</sup> We, the audience were invited to imagine our connectivity spreading through the room in the way that mycorrhizal connections spread under the ground, linking plant roots into a network. I was struck by the importance of being still for this kind of association to form. When thinking on-the-move with plants, I have never imagined that I am a walking plant.<sup>154</sup> By adopting a meditative stance, however, with feet together, a straight spine and eyes partially closed, it is possible to imagine being a plant. Intuitively, I envisage toes growing down into the earth to mingle with plant roots, branching arms and leafy hands reaching outwards, while my head is a flower. However, this metaphorical mimicry creates plant de-coherence by evoking a poeticised, stereotypical plant statue. Charles Darwin saw plants differently. He spent many hours in stillness observing the

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<sup>153</sup> Seen at the 8<sup>th</sup> Annual Conference on the New Materialisms, *Environmental Humanities and New Materialisms: The Ethics of Decolonizing Nature and Culture*, Maison de l'UNESCO, Paris 7-9 June 2017. Fiona MacDonald's practice can be viewed at <http://www.feralpractice.com/> (accessed 07.05.19).

<sup>154</sup> Nealon notes: 'Indeed, everyone in animal studies likes to recall Aristotle's sense of humans as 'rational animals' but few recall that for Aristotle we are also 'walking plants'' (Nealon, 2016:60).

slow movements of plants for his final book *The Power of Movement in Plants* (1880). Darwin likened the root-tip, not the flower, of a plant to a brain:

‘...the tip of the radicle....acts like the brain of one of the lower animals, the brain being seated within the anterior end of the body, receiving impressions from the sense organs, and directing the several movements.’ (Darwin, 1880:573).<sup>155</sup>

Darwin’s ‘root-brain hypothesis’ was ridiculed at the time because the flower was viewed as the most important part of the plant through its role in reproduction and display. But recent research confirms his findings:

‘ the root tip is even more advanced than Darwin imagined, able to detect numerous physiochemical parameters in the environment.’ (Mancuso and Viola, 2015:129).

My drawings, writings and stories generated further speculations about the root-brain of the plant. In the micro-installation *Root-Brain* (Charlston, 2017), a cycad plant displays its roots inside an inverted glass head in playful response to Rudolf Steiner’s graphic, human comparison: ‘The roots are the head, and the blossom what is below. The human being is the plant turned upside down’ (Steiner, 1998 (1906):169). In *Root-Brain*, the human is upside down while the plant remains upright (Figure 5.12).



Figure 5.12 Installation, *Root-Brain* (Charlston, 2017).<sup>156</sup>

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<sup>155</sup> <http://darwin-online.org.uk/content/frameset?itemID=F1325&viewtype=text&pageseq=1> (accessed 25.02.19).

<sup>156</sup> Exhibited at the Grosvenor Gallery Manchester, November 2017.

## Walking quests with plants in company

This chapter concludes with two walks in the company of others. My preferred means of reducing the gap between a lived experience of walking and representations of it, is to share the experience with people as well as plants. Walking is a thinking-feeling artistic practice which stimulates emotions and imagination simultaneously. This is especially the case when ongoing sensations and ideas can be shared. The symposium of walking among plants with others is flavoured with impressions, dialogue and shared decision-making. Spontaneous conversations happen. People talk about the plants they recognise or remember from childhood games. This naming is different from the scientific classification often disparaged as cold and pedantic (Ruskin, 1888:Loc 99, Marder, 2016:67), it is a naming of familiarity, friendship and memory, a kind of non-covetous owning. People make gestures when they are near plants. Stopping to look, they lean forward, look up, reach out, crouch down, point, cup the hand, or touch plants gently. Others ignore plants, trample them, avoid them or break off twigs as they pass. In his description of 'gestural walking', Ryan (2012:Loc1367-1399) foregrounds these gestures of recognition which are characteristic of being with plants. I walked with an awareness of gesture to emphasise the intimacy of bodily and sense engagement.

I was invited to lead an autumn walk in the Pendleton Wastelands, paying attention to plants.<sup>157</sup> The Pendleton Wastelands in Salford cover a large area of derelict playing fields, paths, parkland and empty or ruined buildings including the 'footprint' of demolished high-rise flats. The area is in a transition state between demolition and urban regeneration and has been quickly occupied by an astonishing variety of plants. Astonishing, because they seem to have arrived from nowhere. The roads, shops and flats in the surrounding area appear to be devoid of plants. Walking in this dystopic place surrounded by luxuriant plant growth I experienced a surge of clashing sentiments expressed in the following extracts:<sup>158</sup>

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<sup>157</sup> The walk in Pendleton on Saturday 3 September 2016 was one of a series of walks instigated by John van Aitken and Jane Brake, founders of the Institute of Urban Dreaming. The Arts Council funded project culminated in *'Demand Utopia'*, an exhibition at the Peoples' History Museum, Manchester including lectures, screenings and a free publication *All Materials of Value*, in which my text appears.

<sup>158</sup> A longer version of the text appeared in the publication *All Materials of Value: responses to walking in Salford*, edited by Jane Brake, funded by Arts Council England.

11.40 As we walked a deserted pathway, wisps of dead grass made chequered patterns through the bare paving. Looking closer, I saw lichen-mimicking blotches of flattened chewing gum. John was telling me about the history of the area - poverty, community, gentrification. Mosses and liverworts congregated around the charred stumps of vandalised trees.

12.30 Deep in the Wastelands we walked defenceless, with dripping umbrellas, in the footprint of demolished high-rise flats. Notices spoke with abandoned authority 'residents only', 'report to the warden', 'no parking'. Through the dismal wreckage and sodden rubbish thousands of tree saplings were emerging, hundreds of plant species, diverse, multicultural, rampant, resilient, obstinate, relentlessly twining up railings, sneaking through cracks, bursting through rubble, clinging to walls and clutching at litter. Plants claimed the concrete and metal ruins as ecological territory. Here, in the Pendleton Wastelands, plants created a bio-political realm out of the cracks and fissures of human failure. John was crouching to photograph a purple vetch.

Names bobbed-up from deep memory. Bedstraw, agrimony, campion, ranunculus, trefoil, cranesbill, spurge, mugwort, coltsfoot and umbellifer – still flowering in the mild September. White melilot; yellow patches of wild mustard and ragwort; a last flush of red clover, herb Robert, Michaelmas daisies and fumitory. Others were preparing for next year's grand gesture. Black spikes of seeding dock, sorrel and plantain; pale green teasels; fluffy willow herb, groundsel, fluffy-headed thistles and dandelion clocks; wild arum berries turning red. Apothecary delights of selfheal, woundwort, feverfew, nightshade mingled with escaped domestic wheat and oilseed rape.

13.00 Rain and wind stirred-up detritus, dead leaves and seeds which would eventually settle. A few blousy white flowers remained on coiled stems of bindweed, 'Granny-pop-out-of-bed!'. Jane leaned forward to touch one of the flowers. We walked on, reminiscing about childhood plants - plantain soldiers, dock juice smeared on nettle stings, dandelion clocks, daisy chains, shredding petals, 'he loves me, he loves me not'.

13.30 Now the rain is relentless. We reach a row of dripping, empty houses. They are closely boarded up, and the tiny gardens have been taken over by clonal colonies of equisetum, possibly giant horsetail. The gutters are sagging under tufts of grass. In the final house of the row, a lone tenant lives on. As his home gives way to dereliction, the paved forecourt is slowly bejewelled with squares of emerald moss and tiny plants.

Extracts from *Impressions from the Pendleton Wastelands*, (Charlston, 2016)

The second walk in the company of others prompted a similar mix of impressions – alarm, amazement, fascination. In Gorton, seven research students pursued their own interests around the theme of ownership and walking. Although plants were not the main focus for everyone, this walk differed from solitary plant-led walking on several counts. The presence of others made this a shared experience, with opportunities for pausing, conversation and exchange of ideas (Figure 5.13).



Figure 5.13 Walking in company at Gorton, March 2018.

Gorton, like Pendleton is in a state of transition, but here homes and industries continue to operate between and around a derelict park, empty warehouses, a boarded up primary school and littered pathways. At the time of the walk, plants were poised to end their winter dormancy and to surge up from the decaying rubbish in abundant growth.

*Our movement relative to the urban phyto-scape obscures the movements around us. Our rhythms are different, our worlds are different. Walking creates the illusion that we are mobile and agile, while the plants are static and unresponsive, distinctly non-nomadic. But plants cross continents, fill new habitats and occupy new ecological niches. To inhabit new places, plants don't walk or run. Seeds drift with wind, are ingested by birds and cling to animals. Pollen flies with the bees.*

Fragment from *Being Nomad in Gorton* (Charlston, 2018)<sup>159</sup>

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<sup>159</sup> A longer version of the text appears in the one-off online journal, '*Being Nomad*' edited by members of the Nomadic Reading Group at Postgraduate Arts and Humanities Centre, MMU. Available at <http://beingnomad.harts.online> (accessed 17.03.20).

My aim was to activate sympoietic overlappings and intertwining with plants. However, my feelings of being an intruder, out-of-place, were heightened when others shared memories of the place and spoke fondly of the area which seemed so desolate to me. At last, a spontaneous merging of nature and culture occurred when we made chalk marks on the brick walls in a performative response to plant growth and graffiti already there (Figure 5.14).



Figure 5.14 A performative response to plant growth and graffiti.

A striking feature of both the walks was the vigorous plant life growing in abandoned places. Plants thrive when culture recedes. It would be possible to replenish the number of trees by simply allowing them to grow where there is space:

‘Let a field be abandoned – within a year it will be invaded by oaks springing up from acorns dropped by passing jays, or by birches from wind-blown seed. In ten years it will be difficult to reclaim; in thirty years it will have tumbled down to woodland’ (Rackham, 1987:67).

A diffractive reading of the two walks through the concept of a nature-culture continuum reveals plants in a deeply conflictual entanglement with social, political and cultural interests. One of the priorities when renewal begins in Gorton and Pendleton will be to destroy the plants. Plants are not classified as rubbish or weeds by mistake or because they are not seen but rather, their plant presence is altered by a cultural de-coherence effect so that they are framed as dispensable rubbish instead of living plants.

*Even as I imagine rampant multispecies growth transforming this desolate anthroposcenery into a phyto-delic wilderness, all of this is already underway, in amongst the detritus and crumbling paint. When they come with machines and plastic sacks for the 'great clearing up', thriving micro-habitats will be mangled up along with discarded syringes and soiled nappies.*

Fragment from *Being Nomad in Gorton* (Charlston, 2018)

Summing up, walking and being still with plants in the role of an artist with sympoietic intentions has demanded changes to my attitude towards myself as well as the plants. If I am present to the plants around me at all, my culturally embedded, social self, my status, my identity, play no part in our relationship. This realisation has, paradoxically, helped me to feel more real to the plants around me. The shift in perception, the loosening of my self-image through art has allowed a speculative but possible connectivity with plants to form in the place of a rationalised but impossible one.

Participation and audience invigorate sympoietic processes with new questions and concerns which stretch its adaptive capacities to encompass new understandings. In the final chapter, I follow up the participatory and performative aspects of sympoietic practice including the crucial role of audience.



## CHAPTER 6

### PARTICIPATING WITH PLANTS AND PEOPLE

Making proto-artist books to interrogate my personal practice with plants, (drawing, weaving grass, solitary walking, and growing supermarket fruit) not only prompted the concept of plant de-coherence, but also activated wider, collective, participatory co-creative encounters with plants and extended artworks. This chapter expands the experience of 'walking in company' to envisage plants, artists and other participants in the art process as a wider sympoietic practice, that is, a collectively produced, adaptive practice. Collective-making, or as Haraway puts it, 'worlding-with, in company' (2016:58) eloquently implies that we form an understanding of the world through mutual exchanges, both contingent and contextual, inter-dependent rather than autonomous.

#### **Latour's collective**

I was excited by Bruno Latour's vision of a loosely bound collective which consciously readjusts hierarchies by assigning a 'voice' to non-human participants (Latour, 2004:57-87).<sup>160</sup> In such a collective, all parties, human and non-human, are accepted as agentially active, which potentially allows space and time for plants to influence decision making. An inspirational art project based on Latour's nature-culture collective (2004:238) was developed and curated by Anke Haarmann and Harold Lemke.<sup>161</sup> Their collective is profiled as an 'artistic and conceptual platform' for activating community art and reflective walking in and around Hamburg, in which all participants, including plants, are regarded as agents. Their interventions provoke relational changes by exposing tacit hierarchies and divisions (Haarmann and Lemke, 2009:73).

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<sup>160</sup> Latour's collective can be compared with Foucault's 'apparatus' described by Agamben (2009). Both terms relate to networks of heterogeneous contributing elements. 'Apparatus' primarily relates to power and knowledge relations while Latour's collective consciously readjusts hierarchies and assigns a voice to non-human elements in decision-making networks.

<sup>161</sup> Haarmann and Lemke are Hamburg based curators and artists who share an interest in co-operation, process and urban culture.

While Latour is concerned with democratising political decision-making about the environment in the large-scale politics of nature, Haarmann and Lemke's creative interpretation of Latour's collective offered an appropriate paradigm for small-scale participative art practice in which the plants themselves play an active role. Sympoietic practice starts from a willingness to cooperate with non-humans on an equal footing.<sup>162</sup> For me, the important corollary of Latour's collective is the recognition of agencies at play in plant-artist relationships when dynamic associations of humans and non-humans work together with a sense of mutual creativity (Bennett, 2010: xvii). Having trialled sympoietic processes of growing and making-with-plants, I wanted to establish a sense of co-operation and mutual creativity in collective working with humans as well plants.

In the urban context of Central Manchester, 'nearby nature' in the form of parks, isolated trees and urban 'weeds' offers opportunities for encountering plants and boosting well-being and plant appreciation (Brook, 2010)<sup>163</sup>. Emily Brady reasons that if experiences of nature can boost well-being, then lack of those experiences may be a form of deprivation (Brady, 2006:286). Here is a clear opening for sensitive participatory engagement in art, especially since commercial ventures offering these benefits in the form of Japanese forest bathing, eco-therapy and nature tourism are not always welcomed. A recent proposal for wooden chalets in Mortimer Forest near my home, which claimed to encourage appreciation of the forest, was turned down because of vigorous opposition from local residents and environmental activists.

When nature is planned into the urban environment, essential considerations for safety, tidiness and ease of access result in tamed nature in which aesthetic enjoyment may be limited to sitting on carefully mown grass. However, there are patches of dereliction in the city which convey a flavour of the free-spirited abandon of wild nature. I discovered a neglected site in Whitworth Park which offered scope for a hands-on collective

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<sup>162</sup> Participatory Action Research (PAR) (Reason and Bradbury, 2008), encourages non-hierarchical communities of inquiry. In a personal interview in July 2016, Professor Peter Reason, pioneer of PAR, endorsed a participatory worldview directed towards the flourishing of humans, communities and wider ecology, with equal emphasis. To this extent, PAR has influenced my approach.

<sup>163</sup> Brook identifies multiple benefits of community planting projects, which develop coordination, planning, self-reliance and creativity and promote social cohesion, spiritual fulfilment and reduction of pain and stress. One of Brook's sources is a DEFRA discussion paper on improving access to green spaces (2011, now archived). Available at: <https://webarchive.nationalarchives.gov.uk/20111030134102oe/http://www.defra.gov.uk/publications/2011/03/28/pb13428-natural-environment-whitepaper/> (accessed 27.02.19).

approach (Figure 6.1).<sup>164</sup> In November 2015, I negotiated the use of the overgrown site as a temporary exhibition space and platform for engaging people, plants and other non-human entities in participatory experiences. My idea for the site was to nurture an embryo ‘collective’ based on Latour’s non-hierarchical collective (2004:57-87). I will examine this project in some detail to learn from the merits and struggles of working collectively and sympoietically with both plants and people.

### **Whitworth Park**

Approval for temporary use of the site was delayed by the complex ‘ownership’ of Whitworth Park.<sup>165</sup> My research objectives for forming a collective of human and other than human participants in Whitworth Park were challenged by conflicting priorities, unforeseen rules and ongoing negotiations with individuals and groups. Interested parties, such as Manchester City Council, Park Managers and Friends of Whitworth Park urged me to ‘tidy up the site’.



Figure 6.1 The *i-trees* site in Whitworth Park, August 2015.

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<sup>164</sup> Enquiries revealed that the 25m x 20m site was formerly used for ‘*i-trees*’ experiments. In the original *i-trees* project, water runoff, temperature and air quality were compared in squares planted with a tree, a patch of grass or covered with tarmac, at several sites in Manchester.

<sup>165</sup> The complex ‘ownership’ of Whitworth Park includes Manchester City Council (lessee), Whitworth Art Gallery, Manchester University (owners since 1958), various grant donors, Park Managers and Friends of Whitworth Park. An additional complication was management of the site itself by Red Rose Forest (Now City of Trees) during the ‘*i-trees*’ project which lapsed in 2013. All of these groups were consulted, and permissions sought before I could proceed. Ethics permissions were sought from MMU, and risk assessments and insurance requirements were met.

Manchester City Council required my interventions and plantings to be temporary, tidy and weed free, followed by full restoration of the site to its original condition. My intention was not a restorationist project. My commitment to non-hierarchical, small scale, collective decision-making mirrored the wider concerns of egalitarian political ecology. However, the requirements of multiple officials demanded details of my practical intentions in advance. Inflexible hierarchical assumptions made it difficult for me to foster a participatory ethos, and to avoid pre-empting propositions which might emerge from the collective. These attitudes did nevertheless point up the kind of shifts to be considered when undertaking a sympoietic approach within group work.

During the course of 2016, seventy-three people from eight different institutions were involved with the site in some way, through consultation, conversations or visits to the site. Many of the human participants did not meet each other but were linked by their common interest in the site. Thus, the emergent collective could be described as a 'dispersed collective' or network in which ideas and activities were pooled and redistributed. Although this did not amount to a collective as envisaged by Latour, the principles he described were inspirational. Informal meetings with artists, students and friends at the site sparked ephemeral interventions, imagined exhibitions, litter clearance, plans to make soup with the nettles and ground elder, and discussions about dereliction, allotments and flower gardens. On one occasion we wrote poems and toured the perimeter of the site to identify self-seeded plants. At another meeting with students, we counted 279 tree seedlings, mostly cherry, ash and sycamore, indicating the ease with which trees colonise an area if they are left to grow. I will discuss two of the planned participatory activities held at the site in greater detail, with particular reference to plant agency, performativity and audience.

### **Collective engagement in Whitworth Park: *Weaving the Plant Filigree***

In the workshop *Weaving the Plant Filigree* at the Whitworth site,<sup>166</sup> I invited participants to explore the sense of plant and human agency by noticing if the plants affected their emotions or influenced their decisions. While some communed with the plants through their senses, others created an impromptu exhibition of plant-led artefacts which materialised from handling the plants. A rich variety of plant

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<sup>166</sup> *Weaving the Plant Filigree* was a full-day workshop at Whitworth Park and Gallery, 5<sup>th</sup> July 2016, in collaboration with Valeria Vargas, Education for Sustainable Development Co-ordinator at MMU.

connectivity emerged in the exhibits and in subsequent writing. There were elements of ritual, pattern making (Figures 6.2 and 6.3), shelter, adornment, display, respect, care, renewal, childhood memories (Figure 6.4) and wonder. The workshop finale was a spontaneous ‘happening’. In place of a logocentric plenary, we created a noisy, non-verbal rhapsody of screeching sounds by blowing energetically across blades of grass.

Figure 6.2 shows members of the group thinking with their hands as they feel the shapes and textures of the leaves and stalks.



Figure 6.2 Handling plants at the workshop *Weaving the Plant Filigree*, July 2016.

The hand gestures are gentle and tentative as if they are responding to the plants with a kind of 'material thinking' discussed by Barbara Bolt in *The Magic is in Handling* (2007). This material thinking is also evident in plant the sculptures which emerged in response to the handling. The thoughts which accompany Figures 6.3 and 6.4 indicate the range of connections activated by handling the plants and thinking as artists, from dormant memories to questions about life and decay.



Figure 6.3 *Another Act of Futility* (David Haley, 2016) at the workshop *Weaving the Plant Filigree*, Whitworth Park, Manchester, 2016.

*'The work, inspired by your workshop, I entitled 'another act of futility'. It was and still is (I use an image of the work for my business cards) a reflection on the creative redundancy of matter - how many sycamore seeds does one tree produce for another tree to grow? What becomes of the seeds that do not flourish? How much food do they represent for other living beings? We may then consider cycles of reproduction within food, water, air and carbon cycles over time. Arranging seeds from a previous season that had landed on tarmac, in an art museum park amused me as 'another act of futility'. It was quite a deep muse really'.*

Dr David Haley, participant at the workshop<sup>167</sup>

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<sup>167</sup> The photograph and text are included with permission from Dr David Haley.



Figure 6.4 Goosegrass sculpture at the workshop *Weaving the Plant Filigree*, at the workshop *Weaving the Plant Filigree*, Whitworth Park, Manchester, 2016.

*'We used to throw goosegrass at each other as children because it stuck to our woolly jumpers. Today, it's satisfying to pull it out of the garden because it comes out so easily. In the countryside it drapes itself about other things, quite sculpturally. The circle is satisfying to make, and easy because the grass sticks to itself. I don't know what I planned to do with the stinging nettles! I remember thinking how easy it was to make things from what we found on that patch of ground. Normally I might gather a few flowers or firewood or blackberries, or play 'here's a tree in winter ...' but not actually make anything. I thought about what would happen to the things we made after we left, they would just die, decompose and be gone'.*

A participant at the workshop<sup>168</sup>

Passers-by who stopped to watch us over the railings became our audience. Some watched in silence, some asked questions, one onlooker mocked us, calling our activities a 'pantomime', another created a festive mood by playing his trumpet. This additional, unplanned audience transformed the multi-agential activity, into a performance. In this way, the onlookers became an important part of the extended, collective sympoietic work.

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<sup>168</sup> The photograph and text are included with permission from the workshop participant.

### **Collective engagement in Whitworth Park: *Equinox Bulb Planting***

The second event I will examine is an *Equinox Bulb Planting* at the Whitworth Site.<sup>169</sup> Planning this event provoked ethical questions and doubts about the feasibility of putting a non-hierarchical collective into practice. I sought to loosen hierarchical authority by forging a non-dominating relationship with the plants and the people involved. However, essential preparations, such as sourcing funds for the bulbs, organising transport of bulbs and hand-tools by Hulme Garden Centre, liaison with Manchester Academy about pupil participation, obtaining permissions and preparing the site itself precluded spontaneous, collective decision making. Anxiety about broken glass and discarded syringes necessitated laborious checking of the site. Manchester City Council agreed to cut the grass to make planting easier<sup>170</sup> but a wasps' nest was discovered in a hole in the ground. Two wasps' nests were destroyed, but it was not considered safe to cut the grass. The preparations for planting a few bulbs involved disrupting micro-habitats and destroying other species, actions which paradoxically did not contravene any institutional ethical rules. How could we justify killing wasps in order to plant bulbs? It seemed to be impossible to carry out a participatory activity as simple as planting bulbs in the spirit of collective decision-making.

On reflection, collective consideration of the plants' point of view over how to respond to hazards and restraints, would require a different approach. As well as devoting more time to collective decision making during the event, the non-hierarchical intentions need to be shared, discussed and mutually agreed before the event. The best way of going about this requires further research. Ideally, the benefits of symyiosis are shared through manifestation of the practice as it could be counterproductive (and hierarchical) to enforce or teach a non-hierarchical approach in preparation for planting bulbs. If plant appreciation and well-being are enhanced by simple hands-on plant experiences (Brady, 2006, Brook, 2010), then this theoretical focus is more suited to longer ongoing projects in which a collective approach evolves over time as a working group.

During the bulb planting activities, hierarchies shifted spontaneously. Although, leading up to the event, I played a dominant role, the planting day was a more collective effort

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<sup>169</sup> The event took place on 21<sup>st</sup> September 2016. Sponsored by Metis Real Estate and supported by Hulme Community Garden Centre, Manchester.

<sup>170</sup> I negotiated permission to plant bulbs that would become naturalised in the grass.



in which roles and relationships were fluid and exchangeable. I gave out gloves, tools and kneeling pads, generally helped out while Tim from Hulme Garden Centre moved naturally into the role I had vacated. He told us about the bulbs, which way up to plant them and called them 'time capsules'. We scattered snowdrop bulbs in natural drifts and considered the optimum conditions for each plant type. Participants abandoned their usual roles in response to the situation. They talked about the plants and the hard, stony ground which was extremely difficult to dig. The matted grass formed a barrier to digging but will ultimately protect the growing bulbs from damage. Teachers worked with children and the children put forward ideas and told stories. Everyone worked with the situation in a different way.



Figure 6.5 Equinox bulb planting event at Whitworth Park, September 2016.

Images of the workshop (Figures 6.2, 6.3, 6.4) and the bulb planting (Figure 6.5) evidence the participatory, hands-on nature of the experience. Hand and body gestures express engagement with plants and soil. Each Whitworth event was an ecologically situated, collective coming together to 'make' new plants. We worked with plants in their growing location, generating multiple intersections and ripples of interest.

An earlier artwork with plants, *Through the Book* (Charlston, 2009), takes on new depth in the light of experiences in Whitworth Park. The 'pages' of this outdoor, site-specific book<sup>171</sup> were empty frames made from coppiced hazel, through which visitors could view living plants (Figure 6.6). The book has since rotted away and returned to the soil. Looking back, the work met sympoietic criteria of non-exploitative, eco-ethical and ecologically situated art. However, when the book was exhibited, the book-object, the touchable human artefact, was the focus of attention for the audience, rather than the plants seen through the pages. The plants were simply overlooked in a clear case of plant blindness. In a re-enactment of this work in 2016, virtual images of the original work formed a photomontage with an image of the site in Whitworth Park. This time, the plants and the virtual book-objects share the viewer's attention, putting plants on an equal standing with human artefacts. The fictional work appears in an artist-book *Fictitious Catalogue* (Charlston, 2016), which features ten fantastical exhibits.



Figure 6.6 Left: *Through the Book* (Charlston, 2009), exhibited at the Sidney Nolan Trust during Herefordshire Art Week (h.Art) 2009. Right: *Reading Through the Book*, featured in the proto-artist-book *A Fictitious Catalogue* (Charlston, 2016).

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<sup>171</sup> *Through the Book* (Charlston, 2009) was exhibited at the Sidney Nolan Trust in Presteigne during Herefordshire Art Week, 2009.

While outdoor collective encounters with living plants are direct and ecological situated, plant materials can be handled and explored indoors. In my conference workshop, *Finding the Plant in Paper*<sup>172</sup>, participants handled dry leaves, petals and seed pods as well as machine and handmade made papers, made from plants. They considered questions such as, what can the plant materials tell me? The non-living cellulose fibres which form protective walls of living plant cells are used to manufacture the paper in most books and influence the folding and tearing qualities of the paper. Thus, there is a plant presence in a book whether or not plants feature in the imagery or text. Participants recognised texture, smell and colour of plants retained in paper and they shared narratives of interrupted life processes, decay and renewal in the flow of materials from living plant fibres to handmade paper and to books. Figure 6.7 shows participants investigating some of the plant materials. While the 'classroom' ethos is not ideal, the heuristic approach is compatible with sympoietic practice, challenges academic norms and encourages unexpected collective discoveries.



Figure 6.7 Conference workshop *Finding the Plant in Paper*, 2017.

### **Performative engagement: *Becoming Plant***

The controversial, interactive artwork *Becoming Plant* (Charlston, 2017) calls for a completely different kind of participation from the Whitworth Park events. It is an artist-directed exploration of feeling-with a plant, in which participatory and performative

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<sup>172</sup> At the NWCDTP Conference held at RNCM, Manchester in November 2017. The twenty-five workshop participants represented a gender balance and a range of academic disciplines. Participants gave their consent to use their responses for my research.

processes mingle with unusual and, for some participants, shocking subjective experiences. *Becoming Plant* provoked very mixed reactions when it was exhibited and when it was the subject of an oral presentation at the 8<sup>th</sup> Annual Conference on the New Materialisms (2017).<sup>173</sup> On the latter occasion, while many of the delegates engaged enthusiastically with the work, one person said that he was 'freaked out' by the thought of being close to a plant.

The artwork is based on a phenomenon known as 'the rubber hand illusion'. Cognitive neuroscientist Henrik Ehrsson found that people think a dummy hand is part of their body if they watch it being stroked and simultaneously feel (but do not see) their own hand being stroked. The illusion is so strong that they jump in alarm, expecting to feel the blow if the dummy hand is hit with a hammer (Ehrsson, 2016).<sup>174</sup> In *Becoming Plant*, I question, is it possible that the perceptual illusion of the dummy hand can be extended to include a plant grafted onto a dummy hand?

For the artwork, I physically grafted living moss onto a dummy hand (Figure 6.8). The sight of the moss-engrafted dummy hand already invites the viewer to imagine becoming partly plant. Some plants are ten times more sensitive to touch than human skin (Chamovitz, 2012:62) but we have no way of knowing what a sense of touch might feel like to a plant. The artwork includes a hand-operated mechanical device<sup>175</sup> which strokes the mossy hand as well as the participant's hand, which is out of sight. *Becoming Plant* is activated when a participant turns the handle of the device. They watch the device stroking the dummy silicon hand, engrafted with moss. At the same time their free hand is placed inside a box, where they can feel it being stroked by the device.<sup>176</sup>

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<sup>173</sup> *Becoming Plant* was the subject of my oral presentation at the 8<sup>th</sup> Annual Conference on the New Materialisms, *Environmental Humanities and New Materialisms: The Ethics of Decolonizing Nature and Culture*, Maison de l'UNESCO, Paris 7-9 June 2017. *Becoming Plant* won the prize for best exhibit at the 9th MMU Postgraduate Research Conference *Changing Lives*, 22 February 2017, where over 50 people participated in the artwork. *Becoming Plant* was shown at the Grosvenor Gallery, Manchester in November 2017.

<sup>174</sup> See <http://www.ehrssonlab.se/>. More information about the rubber hand illusion at: <https://www.newscientist.com/article/dn16809-body-illusions-rubber-hand-illusion/> [https://www.youtube.com/watch?v=nzF\\_DfOfKw](https://www.youtube.com/watch?v=nzF_DfOfKw) (accessed 25.06.19).

<sup>175</sup> The device was made to my specification by Paul Jones of St Ives. Precision replacements for some of the plastic parts were supplied by Teme Valley Engineering, Leintwardine.

<sup>176</sup> See also <https://vimeo.com/209566561> (accessed 27.06.19).



Figure 6.8 Stages in making *Becoming Plant* (Charlston, 2017): Preparing the dummy silicon hand, cutting an incision, and living moss grafted into the cut. Bottom right: the dummy hand is in place on a hollow box beside the mechanical stroking device.

More than ninety people have taken part in *Becoming Plant*, with reactions varying from scepticism and aversion to amazement. A number of participants asserted that they experienced the moss becoming part of their hand. If participants are receptive to 'feeling with the plant', even for a moment, the encounter may prompt ontological questions – could the moss be part of me? However, from a humanist point of view, the attempt to merge plant-human identity may be considered demeaning for humans and consequently a shocking affront to humanity. Further provoking and thoughtful, but unrecorded, conversations took place in, during and after the events. These enriching elements contribute to the collective making of the performative, participatory, ongoing artwork. Figure 6.9 shows how participants attract a questioning audience who also become participants by contributing a further dimension to the thought-provoking experience.



Figure 6.9 Participants operating and discussing *Becoming Plant* (Charlston, 2017).<sup>177</sup>

*Becoming Plant* is multi-layered art assemblage, with characteristics of both organism and artefact, in which the living plant, as well as the artist, participants, and audience all play a part in the merging identities and relational changes. There is no expectation that *Becoming Plant* 'works' in a scientific sense. Rather it is a performative, experiential enactment offering creative possibilities and doubts which require those involved to question their relationship with plants. The perceptual illusion of 'feeling with' the grafted plant disturbs the established view of plants as passive objects, activating intersubjective experience and calling for recognition of a shared organic basis.

The interactive and experiential events discussed in this chapter emphasise the importance of staying with an artwork myself, not only during the making but also in sharing the output. 'Staying with the trouble' (Haraway, 2016) is characteristic of collective, adaptive making. I am not part of the artwork in the same sense that a performer is essential to the work. However, staying with the work physically, mentally and emotionally, allows me to play an active role in the continuity of the sympoietic process, making sense of the evolving work along with viewers and participants. The displacement of anthropocentrism in order to include plants as participants does not involve exclusion of humans or human culture. Audience members play an important role in the continuation of sympoietic art processes and attitudes towards plants throughout and beyond the academy. We have seen how audience and spontaneous onlookers became part of extended artworks in Whitworth Park and in the interactive

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<sup>177</sup> The photographs are included with permission from the participants.

work *Becoming Plant*. In order to fully explore possibilities for audience participation, I will tease out the lines of argument around gallery exhibiting in the next section.

### **Audience as participants in sympoiesis**

My practice initiates personal and participatory, poetic encounters with plants and encourages 'material-discursive' connectivity with plants. The thoughtful engagement of an audience contributes further perspectives and collective understandings, even more so, if the audience becomes a continuation of the sympoietic processes. The question arises: is a gallery setting appropriate for sharing sympoietic work with an audience? The exhibition *Plant Encounters: when plants are included as participants in art*<sup>178</sup>, welcomed plants and audiences as participants in a temporary assemblage of ten artworks selected from my practice-as-research. A material-ecocritical appraisal of my aims for the exhibition, its reception, and relevance to my research gains insights from the obstacles and opportunities encountered.

The exhibition was not *about* plants, their usefulness to humans, symbolic meanings, or aesthetic delights. Rather, I wanted to create a sense of proximity to plants and to initiate co-creative encounters, deliberately deflecting attention away from the authority of the artist and the 'art objects'. In setting up the work my decisions were driven by sympoietic considerations such as accepting plants as participants and relating to plants as agential partners. I resisted a normalised view of plant-human relationships which might portray plants as useful, decorative or available for human exploitation. To make space and time for the plants' voice to break through divisive barriers, I downplayed cultural expectations, spectacle, and aesthetic norms. Text panels and discussion with the audience urged active questioning of the relational status quo.

I took a risk by introducing a mix of interactive artworks alongside wall-mounted visual art and artist-books. This combination was aesthetically at variance in itself and with the physical setting of the Grosvenor Gallery. The formal Victorian architecture speaks of grandeur and human achievement, while the white walls speak of the enforced 'neutrality' of the white-cube gallery ethos (O'Doherty, 1999 (1976)). I did not attempt to reduce the divergence from competitive gallery aesthetics. I was thinking about the exciting tensions these incongruities could provoke and enjoying the stepwise reasoning

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<sup>178</sup> An exhibition of work by Lin Charlston at Grosvenor Gallery, Manchester, November 2017.

required to conclude that, after all, plants are often out of place unless they have been positioned where humans want them.

I placed the work to encourage gestures which are characteristic of being among plants, such as leaning forward, looking up, reaching out, crouching down, pointing, cupping the hand, lifting, and touching gently (Ryan, 2012). Strategically placed mirrors in the exhibition prompted an awareness of self-with-plant. The diversity of work was in keeping with 'biodiversity' which is essential to thriving ecosystems thus mitigating the separation of plants from a lively ecosystem. The de-coherence effect introduced by the gap between a lived experience and representation of it was kept at a minimum by including interactive work and hand-held artist-books which also provided different levels of access, the immediate visual effect of cyanotypes, slow discovery of artist-books and physical interaction with plant material. My decisions were influenced by ecosemiotic discoveries made during my walking *dérives*, during which emergent patterns of similarity and patterns of difference unfolded<sup>179</sup>. For example, my discovery that plants flourish in the L-shapes that are formed when a building or fence meets the ground (Figure 6.11, left) was reflected in the gallery when viewers gathered in the gallery L-shapes to view artwork displayed along a wall (Figure 6.10, right).



Figure 6.10      Left: Plants growing in an L shape      Right: Audience gathering in an L shape

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<sup>179</sup> Gregory Bateson, whom Hoffmeyer considers a precursor of biosemiotics probed inter-relational contexts in the living world. He took an interpretative view of the world as a 'dance of interconnecting parts' in his search for 'the pattern which connects' (Bateson, 2002[1979]: 7, 12).



In the participatory artwork *Still Life!* trays of dry plant parts became an audience generated kaleidoscope of plant assemblages during the exhibition (Figure 6.11). The title has a double meaning. 'Still life' is an arrangement of objects or once-living organisms, captured with paint or camera. The exclamation '*Still Life!*' refers to life, still lingering in the dead-looking plant material. This work, along with the interactive piece *Becoming Plant*, included audience generated books which expanded as responses and ideas were added (Figure 6.13). To encourage participation, I prepared the pages with muted imagery and text to relieve the well-documented difficulty of making the first mark on a blank page: 'You don't know how paralysing it is, that stare from a blank canvas...' (van Gogh, 1884). Polaroid photographs of the contributions were attached to pages of the audience generated books alongside the comments.

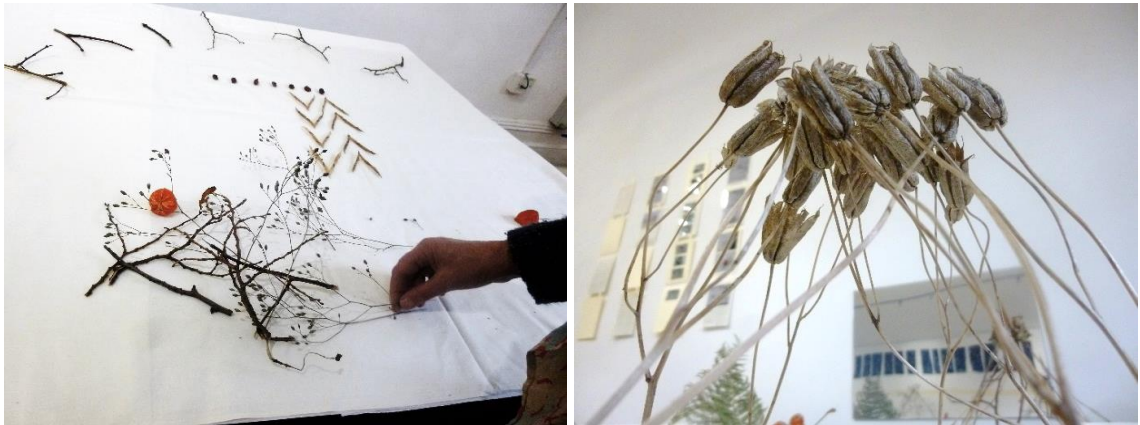


Figure 6.11 Audience-generated assemblages.

The continuity of sympoietic worlding was particularly marked when members of the audience became active participants, transforming the work into a performance when they attracted a further audience around them. Thus, members of the audience perform co-creatively when they contribute to evolving books and interactive artwork, giving plants a voice by opening prospects for plant agency to operate in the production of art outcomes.

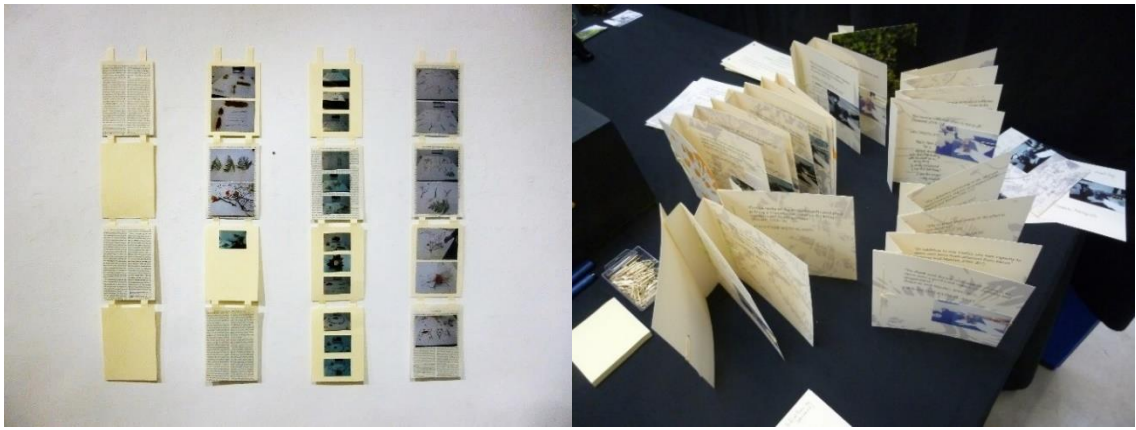


Figure 6.12 Participant-generated books, Grosvenor Gallery, 2017.

By staying with the work throughout the exhibition and taking every opportunity to engage visitors in discussion about plants, I gained valuable insights about attitudes to plants as well as the reception of my work. Reception of the exhibition *Plant Encounters* was mixed. In general, audience unease about presentation hindered reception of work so that some of the subtleties of the exhibition were missed. For example, the playful reference to plants and humans hugging the L shapes was lost in the stronger impression that the work did not come forward to welcome the audience. While the diversity of the work was significant to me, the juxtaposition of styles competed for attention and confused the audience. The unpredictable interactive works were untidy and seen by some viewers as more suitable for children.

I learned from the Grosvenor Gallery experience that exhibiting artist books, interactive artwork and visual art simultaneously in a gallery can weaken the impact by sending mixed messages about how to access the work, thereby losing the trust of the audience. Ed Ruscha's comment 'Good art should elicit a response of Huh? Wow' as opposed to 'Wow! Huh?' demands trust in both the artwork and the artist to carry the audience beyond the 'huh?' to find the 'wow'.<sup>180</sup>

Nevertheless I seek to broaden the platform of sympoietic art and reach new audiences by including artist-books as part of a varied assemblage of works in which books relinquish autonomy as books and become open to a more general, environmentally aware, art 'audience'. Reservations about presentation were balanced by confidence-boosting

<sup>180</sup> RUSCHA, E. 2013. Ed Ruscha's Photography Books. *TateShots*. [tate.org.uk](http://tate.org.uk).

audience responses and enthusiasm,<sup>181</sup> thus exhibitions remain a provocative and favourable choice for exploring ways of sharing sympoietic work.

Initial failures suggest multiple ways of improving the exhibition experience. A more rigorous selection of work with cohesive presentation and an inspirational exhibition booklet could strengthen the conceptual impact and aid reception of the work. One gallery option to minimise the risk of works competing for attention is to create a constructed space within the gallery to house interactive or messy exhibits. However, private participation in the isolation of a cubicle is not compatible with sympoiesis, 'making together'. The performative aspect of participation encourages sharing, co-operation and collective thinking, all of which are essential to sympoietic practice. 'Compatible' venues for plant related art, such as parks, garden centres or museums might attract a more sympathetic audience, but the tensions which spark tough intellectual engagement are missing. In order to test different presentation contexts and strategies, I assembled part of the interactive work *Still Life!* in All Saints Park (Figure 6.14). Revisiting later, I found that the pieces had been re-arranged. This letting go of control over the collective progress of the work provokes new possibilities by risking failure and showing controversial art.



Figure 6.13 *Still Life!* in All Saints Park, Manchester, 2017.

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<sup>181</sup> An unexpected spin-off from the exhibition was an invitation to submit artwork and an essay for a touring exhibition in Kyoto in 2020, based on John Ruskin's work and ideas. In reading about Ruskin, I have noted resonances and dissonances with new-materialist thought which could provide the basis for an interesting diffractive reading (Barad, 2007:88-112).

The struggle to work with controversy is a creative opportunity to learn how to ‘fail better’ with work that is ‘inventive, nuanced, impassioned and intrepid’ (Alaimo, 2016: 174). I have learned that sympoietic art practice *is* research throughout its performative processes, participation, production, poetics, and its reaching out to the world. The moment an artistic idea becomes a thoughtful act, such as simply reaching out to touch a filament of couch grass, a naturalcultural liaison is initiated. Sympoietic art practice in its ethical attentiveness and awareness of plant de-coherence is a move towards a collectively produced, caring natureculture which welcomes active audience participation.

## CONCLUSION

'...matters of *concern* not matters of *fact*' (Latour, 2011:231)

I set out with two broad aims for this practice-as-research project. Firstly to develop a sympoietic art practice with plants and to formulate an ecologically sound critique of sympoietic working processes. Secondly, I wanted to explore my relationship with plants in depth through practical manifestations of sympoietic practice. Throughout the thesis, I made clear the speculative nature of this research in which both successes and failures to achieve sympoiesis with plants provide fruitful sources of artistic provocation and understanding. It is now time for me to move outside the frame, stand back as an observer and reflect on what has been done. What has been achieved? What has changed? What contributions have been made? How has the project opened the way for further research?

The project evolved amid concerns over the present global ecological crisis. I engaged, as an artist, with current posthuman discourse concerning problematic human relationships with the more-than-human world seen through my book-art practice, my personal love of plants, science education, as well as awareness of deep-rooted historical divisions between nature-culture. The project has addressed concerns which are timely in view of increasing academic interest in human-non-human relationships and the perceived urgency for action in the face of anthropogenic environmental devastation. Wisdom from feminist new materialisms, posthumanism and critical plant studies has been woven into a critical examination of specific manifestations of my art-research activities: co-creative processes, the production of artist-books, participation, performativity and poetics in the context of walking, growing and making-with-plants. Images, poetry and fragments of text from my proto-artist-books are integrated in the body of the thesis in a discursive interweaving of practical and theoretical aspects of the projects.

By taking a variety of approaches to co-creativity, I was able to identify key ideas as well as stumbling blocks for sympoietic practice. In the thesis, each chapter interrogates specific works in terms of the co-creative, co-agential intentions of sympoiesis, naturecultures, ethical criteria of non-exploitative, ecologically situated practice and the role of audiences. The thesis referred to the importance of plants for human physical, mental and spiritual wellbeing but emphasised the limitations of this human-centric view, arguing rather that art is now called upon to engage with the ecological contribution of plants, to acknowledge our fundamental co-dependence and to alleviate tendencies to grab human advantage from plants. While an entirely co-creative art practice with plants remains hypothetical, the identification and enactment of sympoietic processes with plants has raised questions, generated critical discussion and revealed rich complexity in plant-artist relationality. I discovered that the inclusion of plants as participants in art demands radical changes in attitude which potentially incentivise wider changes in behaviour. A diffractive critique of my co-creative art processes revealed patterns of connection and divergence which empowered affirmative engagement with plants across different viewpoints while remaining flexible and open to emergent ideas. Practice as research released alternative ways of viewing plants and unsettled normative notions by accepting dappled interpretations rather than seeking reductive scientific truths.

Simple practical processes of knitting with couch grass channelled ethical principles of egalitarian, non-exploitative, ecologically situated dealings with plants for co-creativity which accepted plants as co-agential partners. These ethical principles mingled and interacted with my practice during the course of the research. Co-creativity demanded a sense of agency and of equity, I could not work co-creatively with plants if at the same time I considered them inferior and passive. Furthermore, non-exploitative activities engendered a sense of inclusion and caring. While ultimately not harmful to plants, many co-creative processes were found to be subtly invasive when examined through the ethical criteria of non-exploitative, ecologically sensitive practice. Probing the limits of ecologically situated practice I concluded that it is desirable but not essential to work on location, where plants grow. Sympoietic practice is carried out with an awareness of the enmeshment of plants, not only with other life forms and with soil, sun and water but with humans and human culture and is thus sensitive to the diverse situations plants experience in the context of art practice. 'Non-exploitative' practice involves balancing

duty of care for the plants with the human need for plants as food as well as less tangible benefits of plants, such as well-being. Non-exploitative intentions then morph into a kind of fair use of plants. Egalitarian work with plants need not be based on sameness but calls for a feminist-aligned acceptance of differences without imposing hierarchical values. In view of the ambiguity of the term egalitarian and its humanist associations with equal rights, 'inclusivity' now seems a more appropriate term in the context of sympoietic practice with plants.

Throughout the thesis, I emphasised the importance of participation and performativity in sympoietic practice. I investigated plant-artist relational changes activated when plants and people are included as participants in making processes. The transformational growing of supermarket fruit from a commodity to a co-agenial partner was examined in terms of ethical implications and an interplay between organism and artefact. Growing plants as an artist differed in several respects from growing plants as a gardener, notably the sympoietic intentions and questioning which characterise this artistic approach. My walks with plants, including the urban *dérive* and walking in company, were described in relation to walking-art tradition and the work of Clare Qualmann and Hamish Fulton. Different aspects of plant temporality were accessed artistically by staying still or walking-with-plants, while applying ecosemiotic questions to interpret plant sign relations.

The demands of sympoiesis transformed my approach to book-arts. The 'autonomous' artist-book was broadened and re-framed as part of a multimodal assemblage enriched by the tactile, structural, multimodal elements of the communicative book form. Making proto-artist-books became a foundational aspect of my methodology for documenting and developing ideas and inspiring further activities. My initial intention to produce editioned artist-books in line with previous practice, gave way to sympoietic practice which guided me towards collective plant experiences and interactive, performative artwork. While editioned artist-books have a long reach when they are widely disseminated, they are typically read in private and may remain dormant for long periods. The book comes to life in performative, situated assemblages of interconnected artwork. I referenced artists who bridge conceptual book-art and aspects of ecological art such as participation, and artists who bring new materialism or posthumanism to their practice.

The continuation of ecologically-sound sympoietic sharing with an audience proved challenging. In the practical participatory contexts I investigated, more preparation time was needed to consider and discuss prevailing hierarchies and attitudes towards plants. In terms of collective practice, multiple shifts are required in order to enact sympoietic worlding in the spirit of Latour's non-hierarchical collective. Workshops and residencies provided unexpected, exhilarating and affirmative opportunities for audience participation and encouraged informal sharing of sympoietic processes. The performative artwork *Becoming Plant* explored the possibility of experiencing tactile sensations, literally through a plant (pages 132-134). This interactive work transformed the audience into performative players in shaping and sharing the artwork.

By framing my activities in the context of plants rather than exclusively human contexts, I began to think about what I am to the plant rather than about what the plant is to me. In one work, I envisaged this entirely imaginary self, as I might be perceived by the plant in the proto-artist-book, *to this rose I am a warm cloud*. While it seems obvious that there are aspects of plants which are beyond my comprehension, I have been shocked and inspired by the idea that I am unimaginable to myself. Thus, the mental leaps brought about by attempting to shift my dominance as artist, influenced my self-image as well as my relationship with plants. The most significant change to my expectations as an artist working with plants has been in the power of art practice as an instrument of enquiry in which both successes and failures are equally valuable.

In the thesis I looked closely at changes in plant-artist relationality brought about in honing a sympoietic practice. I discussed the, sometimes absurd, processes I employed in getting closer to plants and reducing my dominance, for example, my 'phytomorphic' attempts to become more plant-like by burying my arm in the ground (pages 34-36) expressed in the proto-artist-book *Planting my Arm*. Simulating a plant's experience was thought provoking, but unlikely to be an effective foundation for sympoietic practice. When attempting to work co-creatively with plants, I was initially impatient for plants to demonstrate reciprocity in a way that I could recognise. However, the influence of plants on my emotions and my aesthetic sensitivities has been subtle, profound but undemonstrative, while my presence alone had no apparent influence on the plants. This ability of plants to influence me independently of my intentions is an indication of plant agency at work. I argued that an awareness of plant agency is essential to co-



creativity. In practice, however, this may be no more than a tacit acknowledgement which does not rely on a specific definition of agency. Sympoietic practice enriches connectivity with plants and boosts opportunity for inclusive, situated plant encounters in the real world so that time, place and interacting company are relevant to the practice as well as 'situated knowledges'.

In terms of contributions to knowledge, my planning, enactment and critical analysis of sympoietic art practice in conjunction with creative questioning have exposed the rich and productive complexities of ethical co-creative worlding with plants. Sympoietic practice opens a discursive space for considering the interconnectivity of art processes with the life of the plant, reaching out energetically in multiple directions to connect posthumanist theories with artistic research, science and everyday life, rather than making closures which terminate the co-creative process. In the thesis, I emphasised the continuity of sympoiesis throughout the creative process from the conception of unspeakably private ideas to making-sense collectively, working co-creatively with both plants and people to form caring artistic naturecultures. In this way, sympoietic practice contributes to the diversity of practice-as-research. Above all, my physical and conceptual trialling of sympoietic practice with plants in combination with ecologically informed 'thinking-as-an-artist' has contributed to the re-enacting, re-discovering and re-telling that keep 'matters of concern' about human relations with the world under constant review.

My second significant contribution, the exciting concept of plant de-coherence, adds a fresh dimension to the theory of 'plant blindness' by proposing that inevitable changes to vegetal nature are brought about by the turbulence of human-cultural noise which occurs when making a transition between the plant and the human world, particularly in art practice. The concept of 'plant de-coherence' arose directly from co-creative activities with plants. I was puzzled that plants seemed to recede from my understanding in spite of physical and emotional closeness and focussed artistic attention when walking, growing and making-with-plants. I explored these feelings in my performative work *Planting my Arm*. While remaining receptive to the theory of plant blindness which advocates educational strategies to address a general disregard of plants, plant de-coherence is not something 'to be put right' pedagogically, but an inevitable corollary of human-cultural filters and sensory differences through which plants are encountered.

In the thesis, I investigate plant de-coherence effects in sympoietic art processes: representation, anthropomorphism, aesthetics, symbolism, and commodification of plants which interfere with plant-artist relationships and wider cultural and political interfaces. The interrogation of de-coherence effects has introduced vocabulary and fresh metaphors from quantum theory into the dialogue between artistic research and critical plant studies, exposing and re-configuring established ideas about plants and redirecting attention to lively differences. The concept of plant de-coherence has assisted my understanding that relations change, that plants change and are changed by cultural attitudes and that neither plants nor humans exist in isolation. I have argued that co-creative practice plays an important role in these relational exchanges.

De-coherence is both a problem and a vibrant resource for sympoietic art practice. While art has contributed to plant de-coherence by presenting plants as something other than themselves, these multiple representations and fantasies are distortions but not inevitably harmful to plants. Plant de-coherence effects can be a source of energy and imagination available to the artist as a powerful means of influence. Working with an awareness of de-coherence, artists may adjust their production methods or representations of plants to reduce negative impacts which actively obstruct life-dependent symbiotic relationship with plants, or those which are detrimental to plants. By exploiting and transforming de-coherence effects, it is possible for artists to initiate a more coherent inclusive relationship with plants and to recognise co-dependence in sympoietic practice.

This project has opened several avenues for further research. Both sympoietic practice and the concept of plant de-coherence effects can be refined, developed and contested. Further scrutiny of ethical dealings with plants in art is called for. The attempt to put sympoiesis into practice as an artist has presented difficult decisions about the smallest actions and attitudes which are normally taken for granted. I have questioned but not resolved what constitutes non-exploitation of plants and egalitarian acceptance of plants. While Maria Puig de la Bellacasa's speculative ethics of care (2017) probes a wealth of sensitive issues, and Michael Marder has provided theoretical insights (2013), the plant-artist relationship operates in a changing world and demands continual attention and renewal, both collectively and by individual artists. Anthropomorphism helps us to identify with plants but may at the same time boost intolerance to

differences, thus, our undeniably human existence does not excuse trivialising other species as almost human. While the attempt to reach out to plants through likening plants to humans obscures the nature of the plant and is potentially denigrating to plants, fantasy and imagination play an inspiring role in art. In this respect, anthropomorphism in art deserves further careful attention and analysis. There is more to be done in successful sharing of multimodal assemblages of artwork. My research focus on the processes and implications of sympoietic practice can be followed through by establishing a continuity of process which preserves the presence and influence of plants in the showing and sharing of sympoietic artwork.

During the progress of this research, we humans have become more isolated from each other and more vulnerable to environmental events beyond our control. The urgency for radical change in human relationships with the natural world has intensified. This thesis has shown how participatory, performative co-creativity with plants provokes alternative, diversity-affirming discussion and moves plant-human relationality towards inclusivity. Sympoietic art practice with plants, particularly in its adaptive, non-exploitative, ecologically-sensitive endeavours, energises collective art-inspired, co-creative alliances across species.

## ***Artist's Ethical Afterthought***

*When I pulled young plants from the earth,  
I damaged delicate membranes.  
Root hairs too fine to see, were torn,  
root cap wrenched away.  
Mycorrhizal complexes were disrupted, life rudely interrupted.  
I severed nourishing leaves with metal blade.  
I exposed the sun-shy roots to violent light.  
I shook away the clinging soil.  
I stretched the roots out, naked, on the cold table  
and with devouring eye, I drew them.*

*\**

*Now I close my eyes and the tangled roots are still there.  
Branching Roots, brains, arterial channels,  
Carrying life to or from the infinitesimal tips.  
Feeling out for the whisker touch of self-meets-self.  
I will give the roots water,  
and tomorrow, I will bury them.  
Not in a grave but in the comforting earth.  
They will rise again, because they are plants.*

From *Underground Connectivity* (Charlston, 2017), collected drawings and poems.

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Photographs by Lin Charlston unless otherwise credited

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## Appendix 1

### Instructions for Six Dérives with Plants

- 1      **Turning Dérive**      p102-103

In a walk from x to y take two turnings away from the final destination. Continue to take turnings away from the final destination until the sight of a plant makes you happy.
- 2      **Catalogue Dérive**      p108-109

Walk 40 paces. Stop and photograph the nearest plant (or plant product). Repeat.
- 3      **Plant-questions Dérive**      p107

During a walk stop when a plant draws your attention. Stay with the plant for three minutes. Ask ecosemiotic questions: *What message does this plant convey in this situation? How did this plant get here? What do I feel about the plant? What inter-relations are signalled? What does this plant bring to mind? Who or what benefits from this plant?*
- 4      **Plant-Story Dérive**      p112-115

Walk in any direction. Find a plant and look at it for five minutes. Then write for three minutes continuously.
- 5      **Dedicated Dérive**      p126-129

Visit the same plant on consecutive walks over a period of several months.
- 6      **Cat-walking Dérive**      p117

When you reach a quiet street, change your walking style to Qigong cat-walking



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