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Article abstract

This paper examines the shared rhetoric between human and horticultural generation in early modern England, particularly focusing on grafting. Early modern English gardening manuals imagine grafting as a method of controlling generation in the natural world, and early modern English obstetrical treatises imagine the female generative body in horticultural language. Alongside these scientific texts, this article uses Shakespeare’s *The Winter’s Tale* as a literary case study of grafting rhetoric. Ultimately, while grafting treatises imagine man’s power over generation in the natural world and obstetrical treatises imagine controlling human generation using horticultural metaphor, *The Winter’s Tale* complicates this fantasy by depicting Leontes’s efforts at genealogical control as unnecessary and fruitless: not only do Perdita and Hermione survive and flourish after his attempts to kill them, but Perdita is the legitimate and non-grafted offspring of Hermione and Leontes.

# “Nature’s Bastards”: Grafted Generation in Early Modern England

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*This paper examines the shared rhetoric between human and horticultural generation in early modern England, particularly focusing on grafting. Early modern English gardening manuals imagine grafting as a method of controlling generation in the natural world, and early modern English obstetrical treatises imagine the female generative body in horticultural language. Alongside these scientific texts, this article uses Shakespeare’s The Winter’s Tale as a literary case study of grafting rhetoric. Ultimately, while grafting treatises imagine man’s power over generation in the natural world and obstetrical treatises imagine controlling human generation using horticultural metaphor, The Winter’s Tale complicates this fantasy by depicting Leontes’s efforts at genealogical control as unnecessary and fruitless: not only do Perdita and Hermione survive and flourish after his attempts to kill them, but Perdita is the legitimate and non-grafted offspring of Hermione and Leontes.*

*Cet article examine la rhétorique que partagent la reproduction humaine et l’horticulture en Angleterre au début de l’époque moderne. Les ouvrages portant sur les jardins, à l’époque, représentent la greffe comme une méthode pour contrôler la reproduction dans le monde naturel, tandis que les ouvrages d’obstétrique de la même époque représentent la capacité reproductrice du corps féminin en termes d’horticulture. À côté de ces textes scientifiques, on se sert dans cet article de la pièce de Shakespeare The Winter’s Tale comme exemple de la rhétorique de la greffe. En dernière analyse, tandis que les ouvrages décrivant la greffe représentent la puissance humaine sur la reproduction dans le monde naturel et que les ouvrages d’obstétrique représentent la reproduction humaine avec des métaphores tirées de l’horticulture, The Winter’s Tale vient compliquer cet imaginaire en présentant comme futiles les tentatives de contrôle généalogique de Leontes : non seulement Perdita et Hermione survivent et fleurissent après les tentatives de meurtre, mais encore Perdita est le fruit légitime non-greffé des amours d’Hermione et Leontes.*

Early modern English culture was deeply engaged with the natural world. This fascination prompted an incredible proliferation of printed texts attempting to articulate humankind’s relationship to and position in the natural world. Husbandry books taught people how to tame the land for subsistence and profit, gardening manuals taught them how to cultivate and manipulate the beauty of nature, and herbals revealed the secrets of nature for their use. These texts often sought to intervene in the many controversies about nature in

early modern England, including enclosure, deforestation, colonial expansion, the importing of seeds, and grafting.<sup>1</sup> Grafting seems to have been particularly intriguing to early modern England, with multiple gardening manuals published professing to detail its art.<sup>2</sup> As a practice that directly involves human

1. For recent critical work on the natural world in early modern English literature, see Jean E. Feerick and Vin Nardizzi, eds., *The Indistinct Human in Renaissance Literature* (New York: Palgrave, 2012); Jennifer Munroe and Rebecca Laroche, eds., *Ecofeminist Approaches to Early Modernity* (New York: Palgrave, 2011); and Ivo Kamps, Karen L. Raber, and Thomas Hallock, eds., *Early Modern Ecocritiques: From the Florentine Codex to Shakespeare* (New York: Palgrave, 2008). I also follow the lead of Rebecca Bushnell's *Green Desire: Imagining Early Modern English Gardens* (New York: Cornell University Press, 2003) by examining the rhetoric of not only literary texts, but particularly gardening manuals. Building on all these early modern ecocritics, my paper extends the critical conversation to the relationship between early modern English interventions into horticultural generation and botanical metaphors for human reproduction in *The Winter's Tale*.

2. See, for example, Thomas Hill, *A most briefe and pleasaunte treatise, teachyng how to dresse, sowe, and set a garden* (London, 1558). New editions of this text were published in 1563, and then as *The profitable art of gardening now the third time set forth* in 1568, 1572, 1574, 1579, and 1593. Hill's second treatise, *The gardeners labyrinth containing a discourse of the gardeners life, in the yearly travels to be bestowed on his plot of earth, for the use of a garden: with the later inventions, and rare secretes thereunto added (as the like) not heretofore published* (London, 1577), was also extremely popular and had new editions in 1578, 1586, 1594, 1608, 1651, and 1656. Leonard Mascall, *A Booke of the Arte and maner how to Plant and Graffe all sortes of Trees, how to set stones and sowe pepins, to make wilde Trees to Graffe on, as also remedies and Medicines* (London, 1572) is the first gardening manual to foreground grafting so obviously in its title and had editions published in 1575, 1582, 1584, 1590, 1592, 1596, 1599, and was then reissued as *The country-mans new art of planting grafting directing the best way to make any ground good for a rich orchard: with the manner how to plant and graffe all sorts of trees, to set and sow curnels, as also the remedies and medicines concerning the same, with divers other new experiments practised by Leonard Mascall*, in 1640, 1651, 1652, and 1656. Anonymous, *The Orchard and the Garden* (London: 1594) and Anonymous, *The Expert Gardener* (London: 1654) both contain sections detailing grafting. William Lawson, *A New Orchard and Garden* (London, 1618), was incredibly popular and had editions in 1623, 1626, 1631, 1638, 1648, 1653, 1656, 1660, 1665, 1676, and 1683. See Hugh Plat, *The Garden of Eden or, An accurate description of all flowers and fruits now growing in England with particular rules how to advance their nature and growth, as well in seeds and herbs, as the secret ordering of trees and plants* (London: William Leake, 1652), with new editions in 1654, 1655, 1660, and 1675. This treatise had been previously published as *Floraes paradise beautified and adorned with sundry sorts of delicate fruites and flovvers, by the industrious labour of H.P. Knight: with an offer of an English antidote, (being a present, easie, and pleasing remedy in violent feavers, and intermitting agues) as also of some other rare inventions fitting the times* (London, 1608). See also Ralph Austen, *A treatise of fruit-trees: shewing the manner of grafting, setting, pruning, and order of them in all respects: according to divers new and easy rules of experience; gathered in ye space of twenty yeares* (Oxford: 1653), with new editions in 1657 and 1665.

intervention into the natural generation of plants, grafting draws attention to one particular area of overlap between humans and the natural world: early modern England uses shared rhetoric to describe horticultural generation and human generation.

In the first section of this paper, I position early modern gardening treatises alongside early modern obstetrical treatises, as these are the two types of texts that most explicitly deal with horticultural and human generation, respectively. I examine how these texts deploy their shared rhetoric and how they imagine a fantasy of male control over generation. In order to complicate that fantasy, I then turn to grafting, as the most explicit way for humans to change the act of growth in nature. I will demonstrate how the grafting treatises construct grafting knowledge, implicitly drawing in their readership with the promise of power over the natural world. I will argue that the manuals view grafting as the conjoining of two separate (but not too different) botanical bodies in order to mend or improve nature. By sexualizing the act of grafting, these horticultural texts employ the rhetoric of human reproduction to imagine plant propagation as controllable by humans: grafting requires the intervention of a third body—the gardener—who exerts power over the reproductive outcome. The third section of this paper will examine the linguistic overlap between human and horticultural procreation through a literary case study of Shakespeare's *The Winter's Tale* (ca. 1611). Working from the early modern English understanding of grafting detailed in the gardening manuals, I will argue that Polixenes uses grafting as a genealogical metaphor to test Perdita. However, this paper suggests that the grafted gillyvors point not only to the union of Perdita and Florizel but also to Perdita's own secret and fraught genealogical origins; in so doing, it connects the grafting discussion to Leontes's crazed attempt to exert control over the reproductive functions of his fruitful wife. Ultimately, I argue that while the gardening treatises imagine man's power over generation in the natural world and metaphorically connect that power to his control of sexual procreation elaborated in the obstetrical treatises, *The Winter's Tale* complicates this fantasy of male reproductive power by depicting Leontes's efforts at genealogical control as unnecessary and fruitless: not only do Perdita and Hermione survive and flourish after his attempts to kill them, but Perdita is the legitimate and non-grafted offspring of Hermione and Leontes.

### Bearing fruit: controlling horticultural and human generation

Early modern horticultural treatises imagine the generative capacities of the natural world, and how an early modern gardener might be able to assist and harness those capacities. As Leonard Mascall asks in *A Booke of the Arte and maner how to Plant and Graffe*,

What greater pleasure can there be, than to smell the sweete odour of herbes, trees, and fruites, and to beholde the goodly colour of the same, which in certaine tymes of the yeare commeth foorth of the wombe of their mother and nourse, and so to understand the secrete operation in the same.<sup>3</sup>

These treatises offer knowledge of how to grow specific natural bodies like trees, fruit, and flowers in “the wombe of their mother and nourse,” explicitly drawing on the language of human generation to describe generation in the natural world. In *A garden of flowers* (1615), Crispijn van de Passe draws on the mother-Nature/mother-Earth trope to explain generation in the natural world: “For the Earth beinge burthened, then Laboureth and travaileth daily to be delivered of that Burthen of her marvailouse and admirable fruites.”<sup>4</sup> Referring to the feminized natural body of the Earth as being “burthened” and about “to be delivered of that Burthen” links this horticultural treatise about generation in the natural world to the language of pregnant female bodies in obstetrical texts. Two of the definitions of “burthen” suggest this connection: “that which is borne in the womb; a child,” and “what is borne by the soil.”<sup>5</sup> These definitions lead us back to the verb “to bear,” which also refers to generation for humans and plants.<sup>6</sup>

3. Mascall, A.ii.

4. Crispijn van de Passe, *A garden of flowers wherein very lively is contained a true and perfect description of al the flowers contained in these four following books* (Utrecht: Salomon de Roy, 1615), “To the Reader Salute.”

5. *Oxford English Dictionary Online*, s.v. “burthen,” accessed April 3, 2014, <http://www.oed.com>. Henceforth cited as *OED Online*.

6. *OED Online*, s.v. “bear,” accessed April 3, 2015. The *OED* explains how the past participle “born” comes to refer almost exclusively to pregnancy and childbirth. For more on this particular verb and how it is used in the early modern period, and in *The Winter’s Tale* in particular, see Margreta de Grazia’s

Yet, early modern gardening manuals do not simply describe how horticultural growth occurs using pregnancy metaphors: Rebecca Bushnell reminds us that this type of book is designed "to teach the reader to shape an order in nature, whether through pruning, design, or grafting, just as the book itself subdues plants' images to its own ends."<sup>7</sup> Far from simply encouraging observation, early modern gardening manuals encourage their readers to intervene in horticultural generation. In the preface to *A most briefe and pleasaunte treatise*, Thomas Hill explains "howe necessarie a thing it was to knowe the right use of ordering and dressynge of a Gardeyn, and the remedies also, for such defautes as happen amonge herbes, and flowers."<sup>8</sup> The act of "ordering" implies that growth in the natural world is disorderly, without the intervention of a human gardener. By claiming that his treatise contains knowledge of "remedies also, for such defautes," Hill constructs natural horticultural generation as potentially full of faults that need to be remedied by the hand of the gardener. Near the end of the preface, Hill addresses the reader to "note (that he doth but labour in vaine) which knowing all such thinges as do springe in gardens, & knoweth not also how to dresse every plante, and to set them in their right places orderly and can tell howe to nourishe and bringe them forward."<sup>9</sup> In the first part of the sentence, plants actively "springe in gardens," suggesting that they grow there without human cultivation. However, Hill admonishes that allowing nature this generative agency will lead men to "labour in vaine": humans must become the subject of the verbs, as they "dresse" the plants, improve the growth of nature by ordering the plants to "their right places," and can usurp the mother as they "nourishe and bringe them forward." Hill's treatise mingles the language of human and horticultural generation, suggesting that humans should intervene in the growth of the natural world.

The generative metaphor is not simply unidirectional: botanical procreation illuminates human procreation in early modern obstetrical treatises. Early modern obstetrical writers, such as Jacques Duval, explain that "children

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"Homonyms Before and After Lexical Standardization," *Deutsche Shakespeare-Gesellschaft West* (1990): 143–56.

7. Bushnell, 74.

8. Hill, *A most briefe and pleasaunte treatise*, A.iii.

9. Hill, *A most briefe and pleasaunte treatise*, A.iii–A.iv.

in their mother's womb are like tender plants rooting in a garden";<sup>10</sup> Jakob Rueff begins his obstetrical treatise by noting that "we observe the natural Procreation of man, to be altogether such, as we perceive the Generation & beginning of Plants, or Herbes, of every kinde to be."<sup>11</sup> Examples like these analogize the human body with the horticultural, and indeed texts like almanacs and herbals detail the ways that human health and gardening could be intertwined. Yet, I am suggesting that with the flood of gardening manuals in the latter part of the sixteenth century, the focus shifts from identifying plants with useful medicinal purposes in order to treat the human body, to controlling generation both human and horticultural, particularly linking the female body and the generative capacity of nature.

The most common example of how obstetrical treatises draw on horticultural generation to understand the female body is the metaphor to "bear fruit." Rueff routinely refers to the fertility of the female body as "fruitfulness."<sup>12</sup> There could be many other ways of talking about the fertility of the generative body and its subsequent offspring, yet this metaphor of the female body as a fruit tree persists, particularly when Rueff refers to a miscarriage or premature baby as "untimely fruit," or "unripe fruit."<sup>13</sup> Similarly, the only occurrence of the fruit tree metaphor in the earliest obstetrical treatise, Thomas Raynalde's *The Birth of Mankind* (1545), emerges as he explains that "Aborcement or untimely byrth is, when the woman is delivered before due season & before the frute be ripe."<sup>14</sup> Jacques Guillemeau's *Child-Birth; or, The Happy Deliverie of Women* (1612) also uses the metaphor of bearing fruit to discuss fertility in a moment in which that fertility is at stake. He explains that a miscarriage or abortion is when something happens to make the female body "loose her fruite."<sup>15</sup> Guillemeau goes even further in his elaboration of the tree metaphor: he explains that women

10. Jacques Duval, *Des Hermaphrodits, accouchemens des femmes* (Rouen: 1612), quoted in Jacques Gelis, *History of Childbirth: Fertility, Pregnancy, and Birth in Early Modern Europe*, trans. Rosemary Morris (Cambridge: Polity, 1991), 45.

11. Jakob Rueff, *The expert midwife* (London: 1637), 1.

12. Rueff, C1r, C1v, C2r, D8v, E2r, and E4r.

13. Rueff, M1r, and M3r.

14. Thomas Raynalde, *The byrth of mankynde, otherwise named the womans booke* (London, 1545), O.viii.

15. Jacques Guillemeau, *Child-birth; or, The Happy Deliverie of Women* (London, 1612), 19.

must be forbid riding in Wagginns or Coaches, especially in the three first months, for as upon a small occasion we see the fruits and flowers of trees do fall (as by some little wind that shakes the tree, or the like,) so many times through a light cause women great with child, in stirring or moving themselves, yea, or but setting their foot awry, may be deliver’d before their time.”<sup>16</sup>

This extended version of the fruit-tree metaphor not only explicitly transforms the fetus into a fruit, but “women great with child” become “trees.”

Yet here, as with the shorter metaphorical transformations, the female body becomes a fruit tree in moments in which her generative abilities are at stake—when the body is miscarrying or aborting the fruit of her womb. Or rather, what I would like to suggest is that the female body becomes a horticultural body here because it is a part of the generative process outside of the control of these masculinized scientific texts: the overlap between the language of human and horticultural generation occurs precisely when control over that generation seems most out of reach. Guillemeau explains that the female body’s movements must be physically controlled during the course of her pregnancy or else her body will rebel in some way and abort the fruit. Indeed, Guillemeau worries that the female body’s ability to carry the fruit of her womb to ripeness can be damaged by something seemingly insignificant—through “a light cause.”<sup>17</sup>

According to *Child-Birth*, the female body is unpredictable: pregnant women, simply by “stirring or moving themselves, yea, or but setting their foot awry, may be deliver’d before their time.”<sup>18</sup> By having the pregnant women as the active agents in their “stirring or moving themselves” or “setting their foot awry,” Guillemeau suggests that women cannot control their own bodies: they will do seemingly inconsequential things like moving that may endanger their pregnancies. Because the pregnant female body is so unpredictable, Guillemeau recommends that pregnant women “must be forbid” and controlled from doing these kinds of potentially harmful activities. By turning the list of forbidden activities into written textual knowledge, Guillemeau is in fact the one who

16. Guillemeau, 22.

17. Guillemeau, 22.

18. Guillemeau, 22.



takes control of these bodies, telling his readers what they should and should not allow their pregnant wives to do. However, unlike the women who are accidentally the cause of their own miscarriages, the trees that Guillemeau equates them with are passive: “the fruits and flowers of trees do fall (as by some little wind that shakes the tree, or the like).”<sup>19</sup> I would like to suggest then that this text’s use of the horticultural metaphor here not only transforms female bodies into trees, but in so doing it transforms them into passive bodies who do not challenge for control over their own generative abilities. They require the patient care of a husband—or perhaps a husbandman—to ensure that their fruit will be safely born.

A much later early modern obstetrical treatise, Francis Mauriceau’s 1672 text *The Diseases of Women with Child, and in Child-bed*, makes explicit this link between the careful control of a husband and a husbandman. Using the pregnancy-tree metaphor to attempt to understand why children are sometimes born prematurely, Mauriceau explains that “we may perceive the same also in fruit, for the seasons and different climats always more or less assist their speedy maturity, which depends likewise very much on good husbandry.”<sup>20</sup> With “husbandry,” Mauriceau references both the husbandman who ensures the proper generation of fruit on fruit-trees, and also crucially, the husband who through analogy must ensure the proper generation of the fetus in the pregnant wife/mother’s body. Indeed, pregnancy and husbandry are linked together by the biblical postlapsarian punishments for the Fall. Women will labour through pregnancy and childbirth and men will have the labour of husbandry, for “cursed is the ground for thy sake: in sorrow shalt thou eate of it all the dayes of thy life. Thornes also and thistles shall it bring forth to thee: and thou shalt eate the herbe of the field.”<sup>21</sup> In the fallen world, men must toil at husbandry, but the obstetrical texts extend that husbandry to include tending to the metaphorically horticultural bodies of their wives. While in many of the other examples, the texts convey anxiety about the ability of the female body to appropriately care for the fetus, here Mauriceau suggests that the proper growth of human children “depends [...] very much on” the interventions of

19. Guillemeau, 22. We might think here also about the very word “miscarriage” and how it implies that there is something wrong with the way that the female body “carries” the fetus.

20. Francis Mauriceau, *The Diseases of Women with Child, and in Child-bed* (London, 1672), 140.

21. King James Bible (1611), Genesis 3:17–18.

the masculine figure, the husband. That Mauriceau performs this appropriation of control over the generative female body by imagining that female body as a fruit-tree in need of the masculine intervention of husbandry, suggests how the obstetrical and horticultural discourses of control are intertwined: early modern scientific texts imagine both female bodies and horticultural bodies as in need of masculine husbandry in order to ensure that their generative capacities function appropriately.

### **“An art / Which does mend nature”: early modern English grafting treatises**

The early modern horticultural practice that involves the most interventionist kind of husbandry over generation is grafting, and it has been an area of increasing critical attention in early modern literary studies, beginning with Bushnell’s *Green Desire* (2003). Bushnell argues that grafting was one of many horticultural practices that could be used to engage with the early modern culture of curiosity: “bettering a plant or producing a rarity would thus not only be a metaphor for disruption of the social order; it could also mark a transgressive desire for self-advancement.”<sup>22</sup> Where grafting for Bushnell signals an attempt at social-climbing, Vin Nardizzi, who has written extensively on grafting in early modern England, suggests that “the ‘graft,’ then, just may prove a helpful category for telling a queerer version of generational and genealogical history, both sexual and textual.”<sup>23</sup> Nardizzi and Miriam Jacobsen pick up on the textual aspects of grafting, foregrounding the link between writing and grafting, and suggesting the ecofeminist ramifications of a female character’s gaining subjectivity through an act of poetic tree-carving.<sup>24</sup> Leah Knight briefly touches on grafting while likewise analyzing acts of tree-carving, concluding from a materialist perspective that “writing on trees thus appears

22. Bushnell, 148.

23. Vin Nardizzi, “Shakespeare’s Penknife: Grafting and Seedless Generation in the Procreation Sonnets,” *Renaissance and Reformation* 32.1 (Winter 2009): 99; see also Nardizzi, “Grafted to Falstaff and Compounded with Catherine,” in *Queer Renaissance Historiography: Backward Gaze*, ed. Nardizzi, Stephen Guy-Bray, and Will Stockton (Farnham: Ashgate, 2009), 149–70.

24. Vin Nardizzi and Miriam Jacobsen, “The Secrets of Grafting in Wroth’s *Urania*,” in *Ecofeminist Approaches to Early Modernity*, ed. Jennifer Munroe and Rebecca Laroche (New York: Palgrave, 2011), 189.

to demonstrate above all the disruptive and violating force of humanity in non-human nature.<sup>25</sup> Moving away from materialist practices of grafting, Miranda Wilson and Erin Ellerbeck both examine grafting as a metaphor for the genealogical line—but a line that has been interrupted and changed, for better or for worse.<sup>26</sup> All of these critics offer compelling readings of the practice and metaphor of grafting on which my work builds; however, in this section I go into more detail about how exactly the gardening manuals imagine the practice of grafting to work. In so doing, I foreground how laborious a practice grafting would be for a gardener, and how that labour marks a deliberate intervention into growth in the natural world, wresting control over generation into the hands of the grafting husbandman.

One of the handbooks that prioritizes grafting as its main subject is the anonymous manual first published in 1594 as *The Orchard and the Garden*, and later in 1654 as *The Expert Gardener*, with both subtitled as “Containing Certaine necessarie, secret, and ordinarie knowledges in Grafting and Gardening.” The subtitle, alongside the “expert” in the 1654 title suggests that this text sets out to convey valuable knowledge that will teach its readers to gain mastery over nature. *The Expert Gardener* focuses on the best way for the gardener to control generation, explaining that “all grafting and imping is done by putting one into another [...] so it may become one tree.”<sup>27</sup> Emphasizing the gardener’s active putting “one” into “another,” this text suggests the separation of these botanical bodies, prior to the gardener’s generative act that makes them “one tree.” In *A New Orchard and Garden* (1623), William Lawson defines grafting as “the reforming of the fruit of one tree with the fruit of another, but an artificiall transplacing or transposing of a twigge, budde, or leafe, (commonly called a Graft) taken from one tree of the same, or some other kinds, and placed or put to, or into an other tree.”<sup>28</sup> Again, this definition foregrounds the “other”-ness of the

25. Leah Knight, “Writing on Trees in Early Modern England,” *ELR* 41.3 (2011): 483.

26. Miranda Wilson, “Bastard Grafts, Crafted Fruits: Shakespeare’s Planted Families,” in *The Indistinct Human in Renaissance Literature*, ed. Jean Feerick and Vin Nardizzi (New York: Palgrave, 2012), 103–17; Erin Ellerbeck, “‘A Bett’ring of Nature’: Grafting and Embryonic Development in *The Duchess of Malfi*,” in *The Indistinct Human in Renaissance Literature*, ed. Jean Feerick and Vin Nardizzi (New York: Palgrave, 2012), 85–99. See also Ellerbeck, “Adoption and the Language of Horticulture in *All’s Well That Ends Well*,” *SEL: Studies in English Literature 1500–1900* 51.2 (Spring 2011): 305–26.

27. *The Expert Gardener*, 7–8.

28. Lawson, 27–28.

two botanical bodies, but here Lawson particularly notes that the conjoining is an “artificial” act performed by the gardener. Furthermore, Lawson actually privileges that artificial act over the natural state of the trees, by highlighting grafting as an act of “reforming.” Grafting is thus not only an artificial intervention that allows the gardener to re-create natural bodies; in “reforming,” it actually carries with it the sense of fixing or mending nature. Indeed, in the preface Lawson asks, “for what is Art more than a provident and skillfull collectrix of the faults of nature in her particular works,” implying that nature’s faults can be remedied through such artful practices as grafting.<sup>29</sup> The gardener who grafts uses his skill to exert power over nature in order to improve it: according to these grafting treatises, generation in nature can (and perhaps should) be under the control of humans.

However, in *The Manner of Ordering Fruit-Trees* (1660), Arnauld d’Andilly draws on the shared horticultural-human vocabulary of generation to describe the offspring of grafting where the gardener goes too far: d’Andilly acknowledges that “[c]uriosity hath perswaded some to invent extraordinary Graffs, by mingling the species of trees entirely different, that thereby they might prevail with Nature, to bring forth new monstrous Fruits.”<sup>30</sup> Through his rhetoric of monstrosity, d’Andilly echoes the language of early modern obstetrical texts, with their lengthy sections on monstrous births. For example, chapter 10 of Nicholas Culpeper’s *Directory for Midwives* (1651) is called “Of Monsters,” and is specifically devoted to monstrous births.<sup>31</sup> In this chapter, Culpeper tells the story “of one Anne Troperim,” who “brought forth two Serpents with her child.”<sup>32</sup> D’Andilly and Culpeper both use the same verb, to “bring forth.” Yet, while the female bodies in early modern obstetrical texts may be dangerously capable of bringing forth monsters, d’Andilly’s pregnant Nature cannot be corrupted. D’Andilly reassures that “[e]xperience hath taught them, that Nature is most chaste in her Alliances, and most faithfull in her Productions, and that she cannot be debauched, or corrupted by any Artifice.”<sup>33</sup> Unlike the husband who,

29. Lawson, A<sup>3</sup>.

30. Arnauld d’Andilly, *The Manner of Ordering Fruit-Trees. By the Sieur Le Gendre, Curate of Henonville*, trans. John Evelyn (London: Humphrey Moseley, 1660), 50.

31. Nicholas Culpeper, *A Directory for Midwives: or, A Guide for Women* (London: Peter Cole, 1651), 152.

32. Culpeper, 152.

33. D’Andilly, 51.

as Leontes from *The Winter's Tale* demonstrates, is always anxious about the potentially unchaste pregnant female body, the gardener need not worry about Nature, here imagined as the patriarchal fantasy of the productive female—the chaste and faithful wife.

Yet even though the gardeners cannot corrupt Nature to bring forth monsters, the early modern gardening manuals mandate that the gardener must still choose the appropriate botanical bodies to conjoin. Lawson specifies that “the graft is a top twigge taken from some other tree (for it is folly to put a graffe into his owne stocke).”<sup>34</sup> The graft cannot be taken from its own stock, because the point of grafting is to make some alteration to the natural state of the tree. However, the graft also cannot be taken from any other tree, as Thomas Hill prescribes that “specially those trees which be of the lyke nature” should be grafted to one another.<sup>35</sup> Mascall similarly notes that “it shall be good also, to sette, plant, or graffe trees all of like nature.”<sup>36</sup> Hill and Mascall use the same wording to describe the kinds of trees that should be grafted to one another; yet, the phrase “of like nature” is still fairly non-specific, carrying with it merely vague hints of anxiety about mingling trees that are too different. Ralph Austen elaborates slightly more on this issue of difference, remarking that you must “graft every Cyence into its own kind: [...] joyn not contrary, or different kinds.”<sup>37</sup> Austen’s insistence on “kind” carries with it not simply our sense of the word as the type of tree, but also a hierarchical sense, in which grafting away from kind would be a sort of botanical pollution. As *The Winter's Tale* will demonstrate in a human context, grafting away from kind can mean class-mixing or, as Jean Feerick has discussed, different botanical kinds could also carry a racial dimension.<sup>38</sup> *The Expert Gardener* provides the most specific instructions about what trees should be grafted to one another: “impe kinde upon kinde, as apples upon apples, peares upon peares.”<sup>39</sup> While grafting provides a way

34. Lawson, 28.

35. Thomas Hill, *The Profitable Art of Gardening* (3<sup>rd</sup> ed., London: 1579), 85.

36. Mascall, L.iii.

37. Ralph Austen, *A treatise of fruit-tress: shewing the manner of grafting, setting, pruning, and order of them in all respects: according to divers new and easy rules of experience; gathered in ye space of twenty yeares* (Oxford: 1653), 49.

38. Jean Feerick, “Botanical Shakespeares: The Racial Logic of Plant Life in *Titus Andronicus*,” *South Central Review* 26.1/2 (Winter & Spring 2009): 92–102.

39. *The Expert Gardener*, 9.

for humans to intervene in the processes of nature, these manuals exhibit an anxiety about the limits of this intervention, suggesting that gardeners must not be allowed to pervert the natural boundaries of kind.

If the early modern gardening manuals suggest that grafting carries with it the potential for transgressive interference, then why graft at all? These gardening manuals suggest that humans can and should interfere with nature, but to make it better, not perverted. *The Expert Gardener* explains that "when the imping sprouts [...] will not grow streight and levell, then you must constrain them perforce, that they may grow orderly,"<sup>40</sup> while Austen explains that the gardener should "prune off those shoots, and branches as are superfluous and grow too neer one another, and preserve only such as are fit to make the Tree of a comely forme."<sup>41</sup> Both these texts argue that the gardener's role is to control nature ("constrain," "orderly," "fit," "comely forme") by making sure that it grows in an appropriate fashion. The rhetoric of control through gardening finds a literary example in Shakespeare's *Richard II* (1597), in which the gardener describes how a good gardener must "bind," "cut," "root away," "wound," and "lop" to control the growth in his garden, using this logic as a metaphor for how a king should govern.<sup>42</sup> Through this extended analogy *Richard II* also implicitly compares the obviously violent act of executing rotten courtiers (like Bushy, Baggot, and Green) with the acts of "lopping" and controlling growth in the garden.<sup>43</sup>

Yet, grafting perhaps goes beyond what the gardener describes as his duties in *Richard II*, because not only does grafting allow the gardener to domesticate wild nature, it also allows him to intervene in and improve nature's generative capabilities. *The Expert Gardener* remarks that "if you graffe the branch of a Medler upon a Peare tree, the Medlers will be sweet and durable, so that you may keep them longer than otherwise,"<sup>44</sup> and Thomas Hill offers a number of ways to change and control nature, such as "to graffe fruite that

40. *The Expert Gardener*, 9.

41. Austen, 50.

42. William Shakespeare, "Richard II," in *The Norton Shakespeare*, 2<sup>nd</sup> ed., ed. Stephen Greenblatt et al. (New York: Norton, 2008), 3.4.30, 35, 38, 59, and 65.

43. 3.4.54. However, the scene closes with the queen's curse on the gardener: she prays that "the plants [he] graffst may never grow" (3.4.102), not only suggesting that his control over nature should fail, but also using grafting metaphorically to refer to Bolingbroke's attempt to graft himself onto England's royal genealogical tree.

44. *The Expert Gardener*, 17.

shall have no core,” “to make the Peare tree beare much fruit,” or “to revive an olde tree that is decayed.”<sup>45</sup> Emphasizing the grafter’s intervention in the trees’ production, Austen explains that “in choice of Grafts, be sure to consider what Trees (of all kinds) are the best bearers,”<sup>46</sup> and Mascall likewise argues that “ye must consider what sortes of trees, doe moste charge the stocke with braunche and fruite.”<sup>47</sup> These texts suggest that the point of grafting is to exert power over the reproductive capacities of nature—the ability of the trees to bear—in order to make it produce stronger, tastier, prettier, or simply more fruit.

If the desired outcome of grafting is fruitful generation, then it is perhaps not surprising that the rhetoric describing how to produce such generation is sexualized. Indeed, *The Expert Gardener* notes “so that one bark may touch the other, and outward one wood another, to the end, the moisture may have the more easier his course, then pull out the pricke.”<sup>48</sup> Here, “touch” and “moisture” signify the exchange of fluids necessary for successful grafting, and of course, for successful sexual reproduction. “Wood” and “prick” are both slang for the penis, and the suggestion that when the prick finishes it must “then pull out” explicitly foregrounds the way grafting involves the insertion of a phallic object (the scion) into a hole in the stock tree. Lawson emphasizes the sexual aspects of grafting, explaining that the gardener should “gash your graft [...] in the midst of the wound, length-way, a straw breadth deepe, and thrust the [scion] into the other.”<sup>49</sup> Grafting thus becomes about the thrusting of a stick into a wound or hole, with thrust suggesting the sexually reproductive act of inserting the penis into the vagina.

As I have suggested, it is quite common for gardening manuals to imagine any kind of generation using the language of pregnancy, gendering horticultural bodies as feminine, leaving no trace of any masculine horticultural bodies required for growth. Yet, grafting, as the practice that most directly involves human intervention into generation in nature, is imagined as actually being like human (reproductive) sex, with analogues for both feminine and masculine

45. Hill, 75.

46. Austen, 49.

47. Mascall, 21.

48. *The Expert Gardener*, 12.

49. Lawson, 31.

sexual organs.<sup>50</sup> However, as the gardening manuals have consistently demonstrated, the question of control is crucial, and it is certainly not the horticultural bodies that have control over their generation in grafting. Rather, the human gardener controls grafted generation, and this figure offers another place to imagine the masculine role in this type of horticultural generation: it is not the scion itself that actively penetrates into the hole in the stock tree, but the hand of the male gardener who controls the scion. Without actually suggesting that grafting, as it was practised and imagined in early modern England, was a human-horticultural sex act, reading the scion as a metonym or prosthetic for the masculine generative power of the gardener will help to parse the complexities of grafting as a metaphor for genealogical generation that I will turn to in *The Winter's Tale*. Using the language of sexual procreation to enact their fantasy of horticultural control, the gardening manuals hint at a potential overlap between a desire for power over vegetal reproduction and human reproduction.<sup>51</sup>

In order to intervene in horticultural generation, the early modern gardening manuals recommend means of exerting power over botanical bodies through grafting. *The Expert Gardener* describes how the grafter should, "take a stump or tree, and cut him off with a sharp Saw, knife or such like instrument" and "cut or cleave the tree with a knife," "pierce the top of a stump, which is not over small, and draw a bark through it, and maime it with a knife."<sup>52</sup> The text explains that the actual act of grafting must be done by wielding such instruments as saws and knives over the body of the trees; by cutting, cleaving, piercing, and maiming the trees, the grafter can control botanical reproduction. Austen actually provides a list of instruments required for grafting: "first a good sharp-knife, and strong, to cut off the top of the stocks, a neat sharp-saw, to cut off the head of some stocks which are grown too bigg for the knife: also a little Mallet and wedge to cleave the bigg stocks, a small Pen-knife, to cut the Grafts."<sup>53</sup> These tools of grafting demonstrate how the grafter must physically alter the bodies of the trees in order to control their reproduction. Wilson suggests that

50. While I am arguing here that grafting is imagined in heterosexual, reproductive terms, I am looking at that particular iteration because the metaphorical grafting in *The Winter's Tale* is about heterosexual generation. I certainly do not want to foreclose the possibility, as Nardizzi has convincingly argued, that grafting can also be imagined as a queer version of generation.

51. In fact, as we will see in *The Winter's Tale*, these two desires prove to be equally unstable.

52. *The Expert Gardener*, 10, 12, and 16.

53. Austen, 46.



“whether in the garden or in the bedroom, grafting eschews the gentler aspects of reproduction in favor of the forced, and often violating, union.”<sup>54</sup> Lawson elaborates on how the trees should be changed:

You must with a fine, thin, strong, and sharpe saw [...] cut off [...] your stocke, set or plant, being surely stayed with your foote and legge [...] and then plaine his wound smoothely with a sharp knife: that done, cleare him cleanly in the middle with a cleaver, and a knocke or mall, and with a wedge of wood, iron or bone, two hands full long at least, put into the middle of that clift, with the same knocke, make the wound gape a straw breadth wide, into which you must put your graffes.<sup>55</sup>

With these powerful instruments for cutting, cleaving, and wounding the trees, the grafter can dominate the horticultural bodies in order to gain power over the reproductive outcomes. On the one hand, these kinds of sharp instruments are certainly necessary for the human gardener to perform his set task of grafting most effectively. Yet, from an ecocritical perspective, were any of these sharp instruments applied to, rather than by, a human they would do violence to that human body; thus, the application of knives and saws to a vegetal body, while potentially beneficial for human society, remains an act of violent cutting and penetration. Given this violence imagined as necessary for the act of grafting, what happens when grafting rhetoric comes to bear on a pregnant female body? To answer this question and to further illuminate the complexities of the relationship between human and horticultural generation, I turn now to *The Winter's Tale*.

**“We marry / A gentler scion to the wildest stock”: genealogy in  
*The Winter's Tale***

In act 4, scene 4, when Perdita refers to “streak'd gillyvors” (4.4.82) as “nature's bastards” (4.4.83), Polixenes seizes the opportunity to enter into the early modern grafting debate about the role of art and nature.<sup>56</sup> Polixenes suggests

54. Wilson, 112.

55. Lawson, 28.

56. This discussion about grafting is just one example of the many ways that early modern culture debated the relationship between art and nature. In *Wonders and the Order of Nature: 1150–1750* (New

that grafting "is an art / Which does mend nature, change it rather, but / The art itself is nature" (4.4.95–97). Here, Polixenes echoes the early modern grafting manuals that suggest gardeners should employ grafting to improve nature. By proposing that using art to change nature is still natural because "great creating nature" made the means of the art (4.4.88), Polixenes appears to rationalize intervention into horticultural generation—though as I will suggest, that soon also becomes human generation. The particular botanical bodies that prompt this conversation between Polixenes and Perdita are "our carnations and streak'd gillyvors" (4.4.82). Gervase Markham provides the innocuous information that "Gilliflowers are of divers kindes, as Pynks, Wall-flowers, Carnations, Clove-Gilliflowers"; he goes on to remark that "they are better to be planted of Slips then sowen, yet both will prosper."<sup>57</sup> Markham's reference to "slips" offers a kind of intervention into nature that is not altogether natural, but is also perhaps not quite as artificial as grafting: planting slips refers to the practice of cutting off pieces of growing flowers and planting them to become an already started separate (but still the same kind) flower. It is likely that Perdita has this practice in mind when she notes that she "care[s] not / To get slips of them" (4.4.84–85).

Yet, even before Polixenes enters the conversation, Perdita refers to the streaked gillyvors as "nature's bastards" (4.4.83), suggesting perhaps that she simply objects to their variegated colouring—which could be caused by natural cross-pollination. William O. Scott explains that Perdita objects to the gillyvors because they "are associated with eroticism,"<sup>58</sup> neglecting to attend to the broader horticultural picture. Robert W. Reeder suggests that the gillyvors are

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York: Zone Books, 1998), Lorraine Daston and Katherine Park explain that "Renaissance writers on topics ranging from moral education to cosmetics skipped nimbly from one commonplace to another, but they rarely escaped the oppositional logic of art versus nature. As a habit of the understanding, the Aristotelian opposition between art and nature still framed the mental world of early modern Europeans" (265). In John Webster's *The Duchess of Malfi* (London, 1623), the debate about grafting is framed by a discussion of the art/nature debate with regards to cosmetics use, in this case a way that women were potentially seen as using art(ifice) to hide their natural selves. The art/nature debate was also applied to writing, as Ben Jonson famously poetically eulogizes Shakespeare's writing, in "To the memory of my beloved, the Auther, Mr. William Shakespeare: and what he hath left us" in *The First Folio* (1623), explaining "yet must I not give Nature all: Thy Art, / [...] must enjoy a part" (lines 55–56).

57. Gervase Markham, *The Second Booke of the English Husbandman: Contayning the Ordering of the Kitchin-Garden, and the Planting of strange Flowers* (London, 1614), 36.

58. William O. Scott, "Seasons and Flowers in *The Winter's Tale*," *Shakespeare Quarterly* 14 (1963): 413.

“a flower whose pied beauty is achieved by crossbreeding.”<sup>59</sup> However, upon prompting by Polixenes, Perdita clarifies what she hates about the flowers: “There is an art which in their piedness shares / With great creating nature” (4.4.87–88). Perdita’s suggestion of the involvement of art eliminates Reeder’s suggestion of natural cross-breeding. Furthermore, her foregrounding of the “piedness” of the flowers as the objectionable element created by art excludes Markham’s practice of planting slips, as this would not produce multiple colours. She never mentions it by name, but Perdita must be referring to the practice of grafting.<sup>60</sup> Although most of the grafting sections of the gardening manuals which I examined in the first part of this paper refer to the grafting of fruit trees, flower grafting was indeed in practice in early modern England; in fact, carnations or gillyvors seem to have been particularly known for grafting. Hugh Plat notes that you may “graft the branches of Carnations the splicing way, as in small twigges of Trees, placing upon each branch a severall coloured flower, but let the branches with which you graft be woody enough.”<sup>61</sup> Even more usefully, Markham notes a specific connection between grafting and creating multi-coloured gillyvors:

If you please to have them of mixed colours you may also, by grafting of contrary colours one into another: and you may with as great ease graft the Gylliflower as any fruit whatsoever. [...] And you shall understand that the grafting of Gylliflowers maketh them great, double, and most orient of colour.<sup>62</sup>

59. Robert W. Reeder, “Siring the Grandchild in *The Winter’s Tale* and *The Fawn*,” *SEL: Studies in English Literature 1500–1900* 48.2 (2008): 355.

60. It is certainly curious that Shakespeare does not actually employ the term “graft” in this passage, even as he employs all these terms that can refer only to grafting. This elision could perhaps gesture back to the rhetoric of secrecy that we see in the grafting manuals, with Hill’s *The Gardeners Labyrinth*, Plat’s *Floraes Paradise*, and *The Expert Gardener* all referencing in their subtitles how the knowledge contained in them is secret (see note 2). The instructions of how to graft are a secret given by the authors of the treatise to their readers, with the mystery about the practice adding to its power. For more on this secrecy rhetoric, see Allison Kavey, *Books of Secrets: Natural Philosophy in England, 1550–1600* (Urbana and Chicago: University of Illinois Press, 2007); and William Eamon, *Science and the Secrets of Nature: Books of Secrets in Medieval and Early Modern Culture* (Princeton: Princeton University Press, 1994).

61. Plat, 75.

62. Markham, 36.

Gillyvors could be grafted "as any fruit" in order to produce the artificial piedness that disgusts Perdita in *The Winter's Tale*.

Unlike Perdita, however, Polixenes appears to endorse the practice of grafting. He explains that "we marry / A gentler scion to the wildest stock, / And make conceive a bark of baser kind / By bud of nobler race" (4.4.92–95). By using "marry," "conceive," and "nobler race" intermingled with "scion," "stock," "bark," and "bud," Shakespeare conjoins human and plant procreative language, signalling Polixenes's use of grafting rhetoric as a test of Perdita's genealogical intentions. Many scholars have noted this scene and remarked on the strangeness of the gillyvor debate.<sup>63</sup> Laurie Shannon uses this grafting rhetoric as a jumping off point for her discussion of the grafted friendship between Polixenes and Camillo, arguing that "Polixenes essentially theorizes the process that results in friendship's 'artificial body.'"<sup>64</sup> Jennifer Munroe takes up this scene from an ecofeminist perspective and argues that "if we see the questions raised by Perdita and Polixenes as engaging with the practices and gendered implications of art used to alter nature in husbandry and housewifery manuals, we might see new ways to read the art/nature debate and gendered power relations in the play at the same time."<sup>65</sup> While Munroe's work on the art/nature debate is particularly insightful, she does not examine grafting and how it might point towards the relationship of interchange that I am suggesting between human and horticultural generation. Simon C. Estok explains that "the argument that Polixenes makes is that Perdita (of ostensibly wild stock) and Florizel (a gentler scion) can cross-breed profitably and without fear of

63. For critical material dealing explicitly with the gillyvors, see particularly Scott's "Seasons and Flowers in *The Winter's Tale*," 411–17; Mary Livingston's "The Natural Art of *The Winter's Tale*," *Modern Language Quarterly* 30 (1969): 340–55; Richard Hillman's "The Gillyvors' Exchange in *The Winter's Tale*," *English Studies in Canada* 5 (1979): 16–23; and Charles R. Forker's "Negotiating the Paradoxes of Art and Nature in *The Winter's Tale*," in *Approaches to Teaching Shakespeare's The Tempest and Other Late Romances*, ed. Maurice Hunt (New York: Modern Language Association, 1992).

64. Laurie Shannon, *Sovereign Amity: Figures of Friendship in Shakespearean Contexts* (Chicago: University of Chicago Press, 2002), 216. Because Shannon's interest in this book lies particularly in friendships, she does not flesh out the potential genealogical implications that the gillyvors discussion might have for Perdita.

65. Jennifer Munroe, "It's All About the Gillyvors: Engendering Art and Nature in *The Winter's Tale*," in *Ecocritical Shakespeare*, ed. Lynne Bruckner and Dan Brayton (Farnham: Ashgate, 2011), 140–41.

the kind of pollution Perdita seems to imagine.”<sup>66</sup> Whereas, Bushnell argues that “Polixenes is being disingenuous here, since the point of his spying on the sheep-shearing festival is to break up the marriage of the noble scion and base stock, that is, the uniting of Perdita and Florizel as he understands it.”<sup>67</sup> By arguing for horticultural grafting, Polixenes attempts to get Perdita to admit that she might be in favour of the genealogical grafting of a prince and a shepherdess together through marriage.<sup>68</sup> Perdita, however, eludes Polixenes’s bizarre trap, as she firmly stands by her earlier claim of the gillyvors’ bastardy. In so doing, Perdita reveals her pure devotion to Florizel: by marrying him, she is not attempting to improve her own genealogical line through grafting as Polixenes implies, but is simply in love. Amy Tigner agrees that Perdita’s “rejection of gillyvors, like the rejection of the fashionable though morally censurable use of cosmetics, preserves and affirms Perdita’s pure, virginal status.”<sup>69</sup> By passing Polixenes’s coded grafting test, Perdita reinforces her appropriateness as a wife for Florizel.

Critics then, read this moment as Polixenes’s deliberately covert reference to Perdita and Florizel’s union, and indeed I agree completely that Polixenes’s motivation for this horticultural analogy is to trick Perdita into revealing a belief in genealogical grafting. Yet, looking beyond the discussion that Polixenes thinks he is having, in Perdita’s vehement denial of the gillyvors and their graft-  
edness the play points to Perdita as the flowering product of grafting, rather than as simply the stock. In her dual role as biological daughter of King Leontes and adopted daughter of the Old Shepherd, Perdita could represent the comingling of the noble and base. Her rejection of grafting, then, suggests that

66. Simon C. Estok, *Ecocriticism and Shakespeare* (New York: Palgrave, 2011), 97. By glossing Polixenes’s argument as simply about cross-breeding, Estok ignores the references to a specific kind of early modern cross-breeding: grafting. Estok also seems to take Polixenes’s argument at face value, rather than taking his disguise and covert purposes into account.

67. Bushnell, 149.

68. Act 2, scene 1 of Webster’s *The Duchess of Malfi* contains another iteration of covert testing through the rhetoric of grafting. In that scene, Bosola gets the duchess to eat grafted “apricocks” and to admit that grafting is “a bett’ring of nature” (2.1.149). Unlike Perdita, then, the duchess falls into the grafting-rhetoric trap and unwillingly draws attention to her own genealogical grafting, through marriage to the low-born Antonio.

69. Amy Tigner, *Literature and the Renaissance Garden from Elizabeth I to Charles II: England’s Paradise* (Farnham: Ashgate, 2012), 122.

nature—her noble lineage—triumphs over the intervention of men: both her father's attempt on her life and the shepherd's rearing. However, this reading does not fully account for the language of grafting in the gillyvors debate. The story of Perdita's birth contains one further twist about which Perdita herself is ignorant. Perdita and Polixenes's grafting discussion signals the alternate genealogical nightmare of Leontes's from the Sicilian half of the play that concerns both Perdita and Polixenes: their debate must be read through Leontes's misguided belief that Perdita is actually Polixenes's bastard daughter.

In referring to the gillyvors as "bastards" (4.4.83), Shakespeare uses the overlapping language of botanical reproduction and genealogical purity to point back to Leontes's understanding of Perdita; indeed, Leontes uses the word "bastard" to refer to the newborn Perdita seven times (2.3.1019, 1021, 1101, 1118, 1124, 1141; 3.2.1299). In his discussion of bastardy in Renaissance drama, Michael Neill explains that "in Latin *adultero* meant not only 'to commit adultery' but also 'to pollute or defile,' [...] *adulterism* (adultery) also referred, for example, to the grafting together of different varieties of plant."<sup>70</sup> Ellerbeck suggests that "grafting thus provides a way to define and describe prohibited reproduction whereby a figurative family tree is altered and tainted through the practice of horticulture,"<sup>71</sup> and Wilson explains that "as the period's persistent and lurid relationship between grafting and cuckoldry reminds us, grafting involves three parties (at a minimum)."<sup>72</sup> In fact, in his paranoid state, Leontes imagines that Hermione has grafted on his head "the shoots" (1.2.129) of "cuckolds" (1.2.190).

Unlike other readings of the play, then, that make this moment solely about Polixenes's attempts to control his genealogical line, viewing the gillyvors debate as additionally pointing to Leontes's fear of Perdita's bastardy foregrounds the link between horticultural and human generation and patriarchal attempts to control them both. By imagining himself as a cuckold, Leontes transforms his unborn daughter in Hermione's pregnant belly into a grafted bastard.<sup>73</sup> In

70. Michael Neill, "In Everything Illegitimate: Imagining the Bastard in Renaissance Drama," *The Yearbook of English Studies* 23 (1993): 278–79.

71. Ellerbeck, 89.

72. Wilson, 111.

73. With the exception of John Webster's *The Duchess of Malfi*, *The Winter's Tale* is rare insofar as it prominently features a pregnant woman and makes her pregnancy so pivotal to the plot. It is very interesting, then, that both plays use the early modern overlap between horticultural and human

act 4, scene 4, then, when Polixenes (the incorrectly assumed grafter) engages in the genealogical metaphor of flower grafting, Perdita is once again associated with grafting—an association that she works hard to refute. However, through this genealogical connection between grafting and bastardy (a connection that Perdita herself makes), the play asks us to imagine the possibility that Perdita is the fruit—or, rather, the flower—of Hermione’s pregnancy.

It is very intriguing that the play aligns Perdita with flower-grafting rather than fruit-grafting. As Bushnell discusses, Perdita’s alignment with flower gardening might be an example of how early modern women were increasingly seen as “flower gatherers and ‘flowers’ themselves.”<sup>74</sup> Pushing this connection further to its genealogical implications, while gillyflowers were grafted, grafting as a horticultural practice was for more often associated with fruit-bearing trees. As Ellerbeck points out, “marriage and trees were frequently linked through the metaphor of the family tree,” with the offspring as the metaphorical fruit of the marriage.<sup>75</sup> I would nuance this reading to suggest that as the obstetrical treatises foreground, it is not simply marriage but generation that occasions horticultural metaphor: pregnant women become fruit-bearing trees in early modern obstetrical treatises. Indeed, in *The Winter’s Tale* Hermione actually invokes this

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reproductive language through a coded debate about grafting. The fact that both of these plays actually stage pregnancy and feature grafting so prominently suggests that physical pregnancy is a kind of uncomfortable reminder to the male characters of their inability to control the female reproductive body like they imagine they can control botanical reproductive bodies. For an examination of the usual way that pregnancy appears in early modern literature—as a metaphor for textual production—see Douglas Brooks, ed., *Printing and Parenting in Early Modern England*, Women and Gender in the Early Modern World (Aldershot: Ashgate, 2005). Scholars such as Wendy Wall, *The Imprint of Gender: Authorship and Publication in the English Renaissance* (Ithaca: Cornell University Press, 1993), and Katharine Eisaman Maus, “A Womb of His Own: Male Renaissance Poets in the Female Body,” in *Printing and Parenting in Early Modern England*, 89–108, problematize from a feminist perspective the reproductive trope of textual production by examining the male authorial appropriation of pregnancy. Eve Keller, *Generating Bodies and Gendered Selves: The Rhetoric of Reproduction in Early Modern England* (Seattle: University of Washington Press, 2007), takes a different tack: she examines early modern medical writing about pregnancy and is particularly interested in how descriptions of pregnancy relate to an emerging understanding of the gendered self. However, much remains to be said about the few literary depictions of pregnant women—like Hermione. This paper argues, then, that by staging Hermione’s pregnancy, *The Winter’s Tale* foregrounds its interest in the genealogical power negotiations that early modern England commonly expressed through the sexualized grafting metaphors.

74. Bushnell, 109–11.

75. Ellerbeck, 93.

fruit-tree metaphor, when she refers to her son Mamilius as the "first-fruits of [her] body" (3.2.94). I would suggest that Mamilius is invoked as fruit because he is the firstborn male-heir who, in the patriarchal society of Sicilia, should serve the purpose of inheriting the throne and becoming the ruler of Sicilia; whereas, Perdita is analogous to a flower, because as the female offspring of the king and queen her role is to serve the aesthetic purpose of being beautiful and potentially being given as a gift in the aristocratic marriage economy.<sup>76</sup>

However, the usual roles of the fruitful crown prince and beautiful flower of a younger princess cannot be fulfilled by Mamilius and Perdita because of Leontes's paranoid genealogical anxieties—anxieties that are on full display in the first half of the play. The appearance of a very pregnant Hermione in these early scenes fuels Leontes's fear of cuckoldry. In an image of uncontrolled female sexuality, Leontes raves that there is "no barricado for a belly; know't; / It will let in and out the enemy" (1.2.203). Tigner insightfully connects the garden location of Hermione and Polixenes to Leontes's jealousy. She explains that "at this moment Leontes literally and figuratively situates Hermione as a descendent of Eve, repeating Eve's transgressive actions and causing the ruin of the Edenic kingdom through her perceived desires."<sup>77</sup> Tigner links Leontes's imagining of Hermione's un-barricaded belly to the *hortus conclusus* tradition, suggesting that "Hermione's body becomes the garden, to which she has purportedly opened the gate to Polixenes."<sup>78</sup> Just as the obstetrical treatises draw on the horticultural language of fruit-trees in moments in which they are faced with the inevitably uncontrollable expansion of the pregnant female body, Leontes imagines Hermione's belly as having escaped its enclosure, as having escaped his control.

For Leontes, Hermione's pregnancy seems to draw attention to the permeability of the female body that early modern culture was obsessed with keeping under control. Patricia Crawford argues that the dominant understanding in the early modern period was that "women were the disorderly sex, and their

76. *The Winter's Tale* was in fact performed at the celebration of an aristocratic daughter's circulation in the marriage economy as part of the festivities surrounding the marriage of James I's daughter Elisabeth to Frederick the Elector Palatine in 1613. Like Perdita, Princess Elisabeth was the daughter of a ruler, and she was in fact being married to someone who would go on to become (if only briefly) the King of Bohemia.

77. Tigner, 115.

78. Tigner, 117.



sexuality was to be controlled so that they bore children only within marriage, and then only to their lawful husbands.”<sup>79</sup> Pregnancy serves as a potent reminder of the ultimate sin of women: Eve’s punishment for tempting Adam to eat the apple is that she will suffer pain in giving birth.<sup>80</sup> Furthermore, as Katharine Eisaman Maus explains, “[the womb] is a container, itself concealed deep within the body, with something further hidden within it: an enclosed, invisible organ, working by means unseeable by, and uncontrolled from, the outside.”<sup>81</sup> Hermione’s pregnancy is threatening to Leontes, not only because it represents her penetrability, but also because the child in the womb is physically hidden from him, rendering all those genealogical resemblances that Paulina will later attempt to show him insignificant.

To control the fecundity of his wife’s body and to ensure genealogical purity, Leontes commits Hermione “to prison” (2.1.103), where Hermione’s women are permitted to attend her, and she “is something before her time deliver’d” of Perdita (2.2.24). Leontes manages to turn the prison into a distorted version of the early modern “lying-in chamber.”<sup>82</sup> According to custom in the early modern period, the mother was removed into a special chamber not only for the labour but also for the subsequent month of “lying-in.” Adrian Wilson, describing this chamber, notes how “air was excluded by blocking up the keyholes; daylight was shut out by means of heavy curtains; the darkness within was illuminated by means of candles.”<sup>83</sup> This chamber seems to have been intended to shut in the female world of pregnancy, ensuring that the expectant and delivered mother cannot infect any of the surrounding men. Describing post-birth events, Wilson remarks that “in many respects the mother was now treated as if she were an invalid” and suggests that the “lying-in satisfied a popular demand for the ritual purification of women after childbirth.”<sup>84</sup> By

79. Patricia Crawford, “The Construction and Experience of Maternity in Seventeenth-Century England,” in *Woman as Mothers in Pre-Industrial England: Essays in Memory of Dorothy McLaren*, ed. Valerie Fildes (London: Routledge, 1990), 6.

80. King James Bible (1611), Genesis 3:16.

81. Maus, 93.

82. In a reversal of Leontes’s image of Hermione’s unenclosed body, Paulina imagines Perdita as “prisoner to the womb” of Hermione (2.2.39).

83. Adrian Wilson, *The Making of Man-Midwifery: Childbirth in England, 1660–1770* (London: University College London Press, 1995), 73.

84. Wilson, 75 and 85.

imprisoning Hermione, Leontes takes this notion of quarantine to the extreme, especially attempting to ensure that she does not infect their son Mamilius. However, Wilson also explains that "childbirth was emphatically under the control of women,"<sup>85</sup> particularly the midwife, and we see this female agency surrounding birth and the masculine anxiety that it causes in *The Winter's Tale*, as Leontes infuriatedly accuses Paulina of being the "midwife" who "save[d] this bastard's life" (2.3.159–60). As a process from which men were typically excluded, childbirth only increases Leontes's genealogical anxieties, making him attempt to intervene in the natural course of reproductive events in the play in a similar way that a gardener attempts to interfere with nature.

Leontes's imprisonment of the very pregnant Hermione is a disturbing exaggeration of the advice given to male readers of the early modern obstetrical treatises who must stop their pregnant wives from undertaking such dangerous activities as riding in wagons lest their bodies become like the fruit trees, vulnerable to something as slight as a breeze. However, where the obstetrical treatises endorse this kind of "protective" control over the pregnant female body in order to ensure that it remains fruitful, Leontes's futile attempt to control the female body seems to have the opposite intention: he believes that Hermione's fruitful pregnancy is the product of grafting, rather than "natural" growth. There are at least two ways to read the connection between marriage and grafting. In the usual reading, marriage is a kind of grafting, in which the eligible woman is cut off from her father's tree and grafted into her husband's tree, and then any children they would produce are grafted fruit or flowers. In this version of genealogical grafting, Hermione's father "the Emperor of Russia" gives her as a scion from his family tree to be grafted into Leontes's Sicilian family tree through their dynastic marriage (3.2.1308). Both Mamilius and Perdita would thus be the products of grafting. However, I contend that the early modern obstetrical and horticultural treatises offer another way to imagine generation: instead of seeing the husband/father as an arboreal body himself, he becomes the gardener, while the female body becomes arboreal. Marriage denotes ownership over the horticultural body and the responsibility of the husband is to act as the gardener and tend his wife/plant so that her generation is the product of his husbandry. Leontes believes that Polixenes—another gardener—has grafted his own scion onto the stock tree (Hermione) who belongs to Leontes. This

85. Wilson, 1.

believed act of grafting means that Polixenes, not Leontes, would have been the one in control of Hermione's generativity.

Because Leontes already thinks that his offspring is a grafted-bastard, his attempt to control generation is not done by grafting. Leontes decides he must get rid of the grafter (Polixenes), the product of the graft (Perdita), and even lop the tree itself (Hermione). Yet, Leontes's efforts at husbandry are in this case fatal, as he does not just lop off the part of the tree that had been grafted; he lops off too much and the once fruit-bearing branch connected to Mamilius dies and the whole tree itself cannot recover. Even worse, there was actually no act of grafting to begin with, so Leontes has needlessly chopped down his own family tree. Because Perdita is actually his child, rather than the bastard-graft of Polixenes, Leontes interferes with nature. Only Mamilius's death will remain permanent, but Leontes's misguided pursuit of genealogical control still severs branches from his family tree. Characterizing Leontes's violence against his human family using a grafting metaphor points towards the potential violence inherent in the act of grafting or any form of gardening in which a human employs the kinds of knives and saws depicted in the catalogues of the gardening manuals in order to control the generativity of a fruit-bearing tree. While winter will finally end in the play, and spring will return to Sicilia and Leontes—first in the form of Perdita and then Hermione—Mamilius, the fruit of Hermione and Leontes's marriage, remains dead. Though Leontes and Hermione reunite, they are in the winter of their lives and are far past the child-bearing stage, so will not produce a substitute male heir. As Sharon Hamilton notes, "Perdita and Florizel serve as the means in this generation to reconcile their fathers' breach and to provide hope for the future."<sup>86</sup>

Yet, as the flower, not the fruit, of her parents' union, Perdita does not necessarily provide a genealogical perpetuation of the Sicilian royal line. The question remains of who will inherit the kingdom of Sicilia after Perdita; when she and Florizel have a child, would he not stand to first inherit his father's, rather than his mother's, kingdom? In the best-case scenario then, the second-born child would inherit the crown of Sicilia, making the genealogical descent more indirect. However, what if Perdita and Florizel were to have only one child? It seems likely that Sicilia would simply be amalgamated into, or perhaps grafted onto, Bohemia, losing the genealogical purity that Leontes sought to

86. Sharon Hamilton, *Shakespeare's Daughters* (Jefferson, NC: MacFarland & Co., 2003), 168.

ensure in the first place. Regardless of the next generation, Leontes’s frantic attempts to control his own genealogical family tree end up being unnecessary—Perdita is his child—and fruitless; even after he tries to kill her, Perdita returns, and Mamilius dies instead. By connecting Polixenes’s engagement with the botanical practice of grafting to Leontes’s violent fear of Hermione’s pregnancy, *The Winter’s Tale* deploys grafting as a genealogical metaphor that signifies intense patriarchal anxiety regarding the potential tainting of the genealogical family tree by uncontrollable women. The shared language of human and plant generation allows early modern English grafting manuals to imagine exerting power over horticultural reproduction in the same way that they might control their own genealogical lines. However, the linguistic interchange between sexual and botanical generation in *The Winter’s Tale* suggests that such attempts to intervene with natural genealogical processes—both vegetal and human—are not only ultimately unnecessary, but can also be harmful to the long-term genealogical growth of the family tree.