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A Thesis

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Master of Science

In

The Department of Geography and Anthropology

by Lauren Hull B.S. Louisiana State University, 2012 August 2017

To my parents, Don and Judy;

and the many peoples, places, and creatures that inspire and remind me of the beauty in the world.

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Abstract

Home gardens are intimate spaces of interaction between humans and the natural world. This study examines how relations and practices within gardens both perpetuate and disrupt perspectives on human separateness from nature. Nine Baton Rouge gardeners participated in this study, sharing stories about their lives and garden through interviews and garden walk-throughs. By adopting more-than-human social theory, this study explores these stories to answer three questions: (1) What types of relationships are found between garden inhabitants in Baton Rouge? (2) How do these relationships influence garden practices? And (3) How do relationships and practices create hybrid garden spaces?

Garden inhabitants include humans and non-humans like plants, animals, and non-living objects which collectively create hybrid garden spaces. This hybridity recognizes the connections between human and non-human to attend to ethical considerations of more-than-human communities. Morethan-human engagements may be traced through relations that inform garden practice and composition. Relations in Baton Rouge gardens include those of family and friends, fear and loss, community, labor, care and discrimination, addiction, and reward and reciprocity. These relations influence garden practices, manifesting as planting and selecting, improvising and transforming, observing and immersing, talking and touching, resisting and protecting, and reproduction. Garden relations and practices in provide entry points for how hybridity and more-than-human worlds come to be realized and challenge notions of human separateness caused by human-nature dualisms.

Baton Rouge gardeners have a variety of relationships and practice in the garden which both perpetuate human separateness and dissolve boundaries of dualisms. However, venturing into the hybridity of more-than-human worlds is often transient, and is dependent on the amount of time a gardener spends in the garden. These states can be traced and identified through processes of control, kinship, and composting, and provide valuable insights human-environment relations that are resonant with existing literature and hopes for more ethical futures.

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Chapter 1: Introduction

This study examines the relationships of garden inhabitants in Baton Rouge, Louisiana, by challenging the human-centered discourse in regards to the composition and control of garden spaces. I investigate gardens as an entry point to confront the human-nature dualism, and identify ways gardens may both reproduce and dissolve these binaries. I am particularly interested the ethical entanglements of how people build relationships with plants and other garden inhabitants such as animals and non-living objects, and how these non-humans' cultivate relationships with people. To do so, I employ more-than-human social theory, most notably the concept of hybrid geographies, to identify the dynamic relations and practices that influence the creation of hybrid garden spaces which account for the more-than-human world.

Gardens are sites of ordinary encounters of human and non-humans facilitated by actions of care, contention, and control. This study focuses on vernacular gardens, a landscape type that is not specifically identified in existing studies of urban private gardens in England (Hitchings 2003, Cloke and Jones 2001) and Australia (Power 2005, Head and Muir 2006, Head et al. 2014). For the purposes of this study, vernacular gardens will be considered those that are created and maintained by residents of the household and their immediate family, or those under their instruction. These may also be considered house lot gardens, which encompass both cultivatable garden beds and the yard or lawn that extends to the boundaries of the property. Unlike professionally designed gardens, vernacular gardens reflect relational processes involving personal labor and time, engagement with other humans and non-humans, and negotiations between and among them. These everyday interactions of personal knowledge and practice constitute an inhabitation of space known as dwelling (Ingold 2000). As spaces of dwelling, gardens are intimate human-environment interfaces that are a productive means of exploring more-than-human worlds and human-nature dualisms. Drawing insight from semi-structured interviews and garden walk-throughs, the following sections attempt to answer three questions:

(1) What types of relationships are found between garden inhabitants in Baton Rouge?

(2) How do these relationships influence garden practices? And

(3) How do relationships and practices create hybrid garden spaces?

The answers we find will illustrate that even the most ordinary of interactions and places have extraordinary richness and implications for existence in a more-than-human world.

Chapter One sites this research in Baton Rouge, Louisiana, outlining environmental, historical, and theoretical considerations of this research. This chapter positions gardens as a place to explore human-environment relations, recognizing non-humans (plants, animals and other non-human subjects) and their active engagement in garden spaces. I will provide a brief review of geographic research on gardens, more-than-human worlds research, and its applications in garden settings. Chapter One also outlines the empirical and theoretical tools employed within this study. Chapter Two draws from semistructured interviews and observations in the garden to identify relations of performance and power between garden inhabitants and how they are implicated in human-nature binaries. These relations include family and friends, fear and loss, community, care and discrimination, addiction, and reward and reciprocity, and create complex webs of relationships in which garden inhabitants contribute to both the practice of dwelling and the hybridity of urban private gardens. These observations are drawn into Chapter Three, which interprets relations into practice and through the lens of hybrid geographies. These interpretations lead to constructions of gardens as co-creative spaces, providing insights on the inherent hybridity of the garden and status of human-nature dualisms in Baton Rouge. Chapter Four synthesizes concepts of the previous chapters, navigating the hybrid geographies of urban private gardens through control, kinship, and compost. These concepts are employed both literally and figuratively to cultivate the garden as a fertile site for human-environment research. Through these concepts, I will explore how binaries are perpetuated through control, blurred by kinship, and dissolved by immersion in the garden and metaphorical compost piles.

1.1 Baton Rouge Gardening

Gardens and gardening activities are prolific in the United States. The 2016 National Garden Survey indicated that 75 percent (or 90 million) of U.S. households participated in do-it-yourself lawn and garden care, collectively spending over \$36 billion in garden products (Butterfield 2016). There is no apparent lack of gardening interest in Baton Rouge. This interest is buoyed by a favorable climate and geography, an extensive history of agricultural knowledge, and growing number of gardening resources and programs focused on the south Louisiana and the Baton Rouge area.

Baton Rouge, the capital and second largest city in Louisiana is located within East Baton Rouge Parish (county) bordered by the Mississippi River along its western edge. Situated within the subtropical latitude zone at 30°26′55″N and 91°07′33″W, Baton Rouge's climate facilitates long growing seasons averaging 260 days a year (Yodis and Colten 2012). These physical and climatic characteristics place Baton Rouge between zones eight and nine of the United States' Department of Agriculture (USDA) Hardiness Zone Map (United States Department of Agriculture 2012), ideal for agriculture production, leisure gardening activities, and diverse plant life.

Gardening institutions also support garden activities in the area. Baton Rouge is the base of operations for both the Louisiana State University and Southern University Agricultural and Mechanical colleges established in 1862 and 1890, whose associated programs have been explicitly tasked with conducting research and sharing information on agriculture to the general public. These programs were established through the first and second Morrill Acts; federal legislation which established the national land grant university program. This nation-wide system of universities provides working class citizens increased access to higher education focused on farming and mechanical skills (USDA National Institute for Food and Agriculture n.d.). The Hatch Act of 1887 allocated funding for the establishment of agricultural research stations to advance best practices in the field. The respective Cooperative Extension Service programs were established with the introduction of the Smith-Lever Act in 1914 to

disseminate information gained by the research stations to the general public and agriculture professionals (Louisiana State University 2012). Today, extension programs like the Louisiana Master Gardener certification program are very influential in garden practices in Baton Rouge and across the state. Academic programs at both universities also speak to Baton Rouge's agricultural heritage. Louisiana State University (LSU) houses the second oldest forestry department in the southern the United States, established in 1926 which is now a part of the School of Renewable Natural Resources (LSU School of Renewable Natural Resources 2017). LSU is also home to the Robert Reich School of Landscape Architecture, one of the Top 3 ranked programs over the past 10 years (LSU College of Art and Design 2014). Southern University houses the only urban forestry program in Louisiana (Southern University n.d.). Baton Rouge also boasts multiple public gardens and arboretums, including Louisiana State University's Hilltop Arboretum, the BREC city-parish Botanic Garden at Independence Park, BREC's Cohn Arboretum, as well as the LSU AgCenter's Burden Botanic Gardens and Rural Life Museum, each which host numerous garden-centered organizations and programs (Table 1).

These gardening groups frequently host public lectures, plant sales, and garden shows in Baton Rouge and surrounding areas. Garden groups also have influence over garden practice through publications, which advise their members and the general public of best practices and best plants for the garden. Many of these groups, as well as nurseries and small businesses, come together each spring for the LSU AgCenter's Spring Garden Show on LSU's main campus in Baton Rouge. Additional shows are also held in Lake Charles and New Orleans (LSU AgCenter 2016). Garden events such as these draw gardeners from around the state seeking new tools and varieties for their gardens.

Many study participants hold leadership roles or are active members in these gardening organizations. Five of the nine participants in this study were certified Louisiana Master Gardeners in East Baton Rouge Parish, and others expressed interest in enrolling. The Louisiana Master Gardener program, established in Baton Rouge in 1994, was implemented as "a means of extending the education outreach of the LSU AgCenter's Louisiana Cooperative Extension Service (LCES)" (LSU AgCenter 2016). Adopted statewide by 1997, objectives of master gardeners include: (1) developing a volunteer network for use by LCES, (2) expand the capacity of LCES to distribute horticultural information, (3) develop and enhance community programs related to horticulture, and (4) enhance 4-H Youth Development (a LCES supported program) horticulture programs (LSU AgCenter 2016). The LSU AgCenter is especially prolific in its publications, many of which are available online in a range of topics including commercial agriculture, backyard vegetable gardens, pest management, organic and other best practices. These institutionalized bodies of knowledge are often incorporated and reproduced within the vernacular gardens of Baton Rouge, as numerous study participants relied on the AgCenter and other groups publications to inform their gardening practice.

Baton Rouge Gardening Groups	
East Baton Rouge Master Gardeners	Hilltop Hodge Podgers
Baton Rouge Unit of the Herb Society	Baton Rouge Garden Club
Capital Area Native Plant Society	Slowfood Baton Rouge
Baton Rouge Camellia Society	Louisiana Bonsai Society
Baton Rouge Orchid Society	Baton Rouge Daylily Society
Burden Horticulture Society	Baton Rouge Green
Baton Rouge Landscape Association	Baton Rouge Garden Alliance
Baton Rouge Bromeliad Society	Baton Rouge Cactus & Succulent Society
Community Gardeners Garden Club of Baton Rouge	American Hibiscus Society, Red Stick Chapter
Wisteria Alliance	Baton Rouge Rose Society

Table 1 Summary of active Baton Rouge gardening groups and associates

1.2 Garden Literature

Gardens have been a productive site of research in geography. Clarissa Kimber (2004) traces three themes of garden research including: (1) biological resources, (2) cultural and social dimensions, and (3) gardens in design and art history (Figure 1). Much of this research has focused in Latin America, North America, and Europe with comparatively little work done in Africa and South Asia. Bhatti and Church's (2001) analysis of private gardens in Britain concludes that gardens are not only spaces of utilitarian use, leisure, or status, but also spaces where individuals develop complex relationships with the natural world. As such, gardens have been useful sites for human-environment research in cultural geography, anthropology, sociology, art and landscape design, and natural sciences as summarized by Kimber (Figure 1).

BIOLOGICAL AND PHYSICAL: Plants as biological Entities	CULTURAL AND SOCIAL: PLANTS AS CULTURE TRAITS	LANDSCAPE DESIGN AND ART HISTORY: PLANTS AS DESIGN ELEMENTS
Garden floristics and structure Native/non-native	Gardens and their species complexes as revealing ethnicity	Gardens as spaces to view and pass through
Gardens as agroecosystems Small farming systems Sustainable agriculture Poverty reduction	Gardens as household spaces Spaces for washing, cooking, and social activities	Gardens as high-style tradition Morphology by design Meaning of design
Gardens as substitutes for natural communities, as habitats for wild fauna and those passing through it	Gardens as sites of economic activities Contributions to home income Sites of cultural reproduction Reciprocity networks	Appropriate social behaviors in gardens
Gardens as places to conduct conservation-biology studies	Gardens as sites for political action Negotiated, contested space Political activity / citizenship	Temple gardens Ritual behaviors in gardens
Gardens as sites for hybridiza- tion Exchanges of genetic informa- tion New varieties	Gardens as environmental engagement Hybrid space	
	Gardens as migrants' spaces Maintenance of migrants' cultural identity	

TABLE I—THE MAIN STRANDS OF INQUIRY IN STUDIES OF HOME GARDENS

Figure 1 Summary of areas for garden research (Kimber 2004)

From a biological perspective, plants in gardens become what Kimber (2004) calls a "variant" of a biological community. This work was initiated by Edgar Anderson (1950, 1954) in Guatemala and Honduras. These studies of useful plants in the garden set the tone for future work on biological research in gardens (Kimber 2004). John Brierley (1976, 1985) also contributed to this field with his analysis of the biological diversity kitchen gardens in Grenada and their role in sustaining both the land and the people that lived there. Agroforestry and floristic inventories of gardens in food systems entered the literature from tropical and sub-tropical regions of South America and the Caribbean (Berleant-Schiller and Pulsipher 1986, Smith 1996, Denevan and Padoch 1988, Denevan 1995, 2001). Geographical studies began to move beyond species compositions into structural characteristics of gardens in the late 1990s. Some researchers identified that removal of natural landscapes and alterations of plant composition increased biological diversity in coffee plantations (Vandermer and Perfecto 1997) and kitchen gardens (Steinberg 1998). Recent studies on biological diversity and structure in gardens has focused on the use of native plants (Smith et al. 2006, Tallamy 2007) and garden practice which increases garden biodiversity (Head and Muir 2006, Tallamy 2007, Cammack et al. 2011, Loram et al. 2011). Biological diversity provides ecosystem roles which support non-humans and humans alike. In urban areas, gardens and green spaces have benefits beyond that human garden resident. Urban vegetation can improve the health of urban communities by providing opportunities for outdoor recreation, and reducing diseases such as asthma which is influenced by environmental factors like air guality (APA 2009). Presence of vegetation and trees can reduce stress in communities, minimize noise, and promote social integration (Cameron et al. 2012). Human perception of urban nature can influence perspectives and valuation of non-urban nature (i.e. wilderness or "pristine" places) (Dwyer et al. 2000) and potentially alter human-environment relations (Bhatti and Church 2001).

The social, cultural, and relational aspects of gardens lead us into the second theme of garden research identified by Kimber (2004). Private home gardens, also known as house-lot or doorway

gardens (Kimber 2004) are important sites of social and cultural reproduction. Many household chores like washing and cooking, and socialization activities like weddings and childrearing take place in the garden (Kimber 1966, Farb and Armelagos 1980, Keys 1999). Maria Christie (2004) explores the gendered roles and cultural reproduction human-nature relations of gardens in Mexico, identifying ways women maintained gardens and cultural practices despite economic pressures and overcrowding. Cultivated plants in the garden may be of medicinal or culinary importance, supporting local foodways and medical practices (Corlett et al. 2002). Gardens have also been shown to have deep personal meanings and therapeutic uses throughout one's lifespan (Gross and Lane 2007). Gardens are may be used as extensions of the home and representations of personal identity and values (Bhatti and Church 2001, Gross and Lane 2007). Garden practices may be also used by immigrants to re-create past landscapes and integrate themselves in new communities (Head 2000, Brook 2003). Robbins (2007) *Lawn People: How Grasses Weeds, and Chemical Make Us Who We Are* took a political ecology approach in examining the influences of capitalist production, marketing, cultural norms, and class structures in the maintenance of house-lot lawns.

The third, most recently developed area of garden research is in design and art history. Many different garden types can be found around the world in both rural, suburban, urban areas, each with different social and cultural meanings and plant compositions. Meanings of garden style have been explored through design (Hunt 1999) and ritual (Baker 2002, Ginn 2014). In a Hindu garden in Trinidad, Prorok and Kimber (1997) identified plants that embody religious deities. The meaning and significance or gardens also be influenced by who creates them. Professional and formal gardens exemplify status and aesthetics (Groening and Schneider 1999), yet are not accessible to all people due to cost. Vernacular gardens on the other hand are those of common people which can be used as cultural diagnostic features. Groening and Schneider (1999), have outlined differences between professional and vernacular gardens, and their role in dwelling, outline in the following section.

1.3 Vernacular Gardens and Dwelling

Gardens included within this research are vernacular in nature, spaces designed, maintained, and enjoyed by the resident. Adapted from the study of vernacular architecture, vernacular gardens include the green spaces and gardens of the ordinary person (Kimber 2004). Todd Longstaffe-Gowan (1993) defines vernacular artifacts as "products of our everyday life and world; they are artifacts of the cultural landscape formed through cultivation and imposed order, the product of practice, not theory." Professionally designed gardens are intended as an aesthetic complement to that of the house. They take little account of the residents own desires, nor do they create functional spaces of home (Groening and Schneider 1999). Professional gardens are cost prohibitive, and lack the intimate interactions of personal labor, decision making, and reflections of the residents' identity and values. Vernacular gardens on the contrary are spaces of improvisation and functionality (Groening and Schneider 1999). Clarissa Kimber (2004) adds that vernacular gardens are those in which the owner derives pleasure from working in it. This process and negotiation within vernacular gardens make them products of dwelling.

Dwelling encompasses the knowledge and practice of everyday life, and was first described by German philosopher Martin Heidegger in *Building Dwelling Thinking* published in 1954, subsequently translated into English in 1971. Heidegger (1971) established dwelling as a *process* of inhabiting the world, something that is dynamic, that changes as ideas change. Heidegger's notion of dwelling revolves around the built structure and is centered on humans being in the world, imbued with relationships of care, attachment, and creativity. Tim Ingold has expanded upon by this concept in his career of publications, most notably *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill* in 2000. As a student of both natural and social sciences, Ingold (2000) is keen to acknowledge both human and non-humans in the process of dwelling. He seeks to disrupt the human-nature dualism that not only divides the disciplines, but produce problematic relations with the natural world. Human-nature dualism, also known as the nature-society binary, manifests as a division between the social or cultural

world of humans and that of nature. Ingold (2000 p. 173) states, "Something, I felt, must be wrong somewhere, if the only way to understand our own creative involvement in the world is by taking ourselves out of it." Ingold proposes a "dwelling perspective" in which the immersion of the organism in an environment is an inescapable condition of existence. This immersion results in a world constantly manifesting around the inhabitant in which all members, human and non-human alike, become significant through their incorporation into the patterns of everyday life (Ingold 2000 p. 173). Ingold (2000 p. 86-87) proposes that gardens can be one site of dwelling in which to explore these humannature binaries:

in the cultivation of gardens, more is done to assist the growth of plants than when they are gathered from the bush....instead of thinking about plants as part of the natural environment for human beings, we have to think of humans and their activities as part of the environment for plants.... If human beings on the one hand, and plants and animals on the other, can be regarded alternately as components of each others' environments, then we can no longer think of humans as inhabiting a social world of their own, over and above the world of nature in which the lives of all other living things are contained. Rather, both humans and the animals and plants on which they depend for a livelihood must be regarded as fellow participants in the same world, a world that is at once social and natural.

Ingold's (2000) work on dwelling considers both humans and non-humans within the process of dwelling. In the garden, non-human roles in dwelling becomes particularly evident, though the extent to which non-humans are included in garden research has focused on biological diversity and ecosystem services. Non-humans are integral members of the garden community and benefit from urban gardens which constitute habitat in an ever more urbanizing and changing landscape, as discussed in research on biological perspectives of gardens. Garden plants provide food, shelter, and nurseries for young, enable the proliferation of certain non-humans, support migration of nomadic species, and provide a refugium for biotic and abiotic diversity. The garden and gardener may pose risks to non-human garden inhabitants, such as hazards from pesticides, pollutants, and other direct and indirect anthropogenic threats. Non-human garden inhabitants, too, can threaten humans as undesired plants and animals take

up residence or resist the gardener's control. As such, gardens can be both productive and perilous for human and non-human garden inhabitants which perform labor and compete for power throughout their lifespans.

1.4 Hybrid Geographies of More-than-human Worlds

More-than-human worlds considers nature and its inhabitants as animate, active characters in the landscape (Abram 1997). Adopted within geography, anthropology, philosophy and beyond, morethan-human worlds is a growing vein of research that both challenges human-nature dualisms and seeks deeper ethical considerations for engagement with the more-than-human world. These approaches challenge us to accept non-humans as an active part of social networks and the material world. Hybrid geographies draws upon two influential lineages in feminist Science and Technology Studies and the Social Studies of Science. Donna Haraway's work on cyborgs, companion animals, and multispecies theory are influential in this field and that of hybrid geographies, informing discourse around hybridity and ethics. Haraway's more recent work in *Staying with the Trouble* (2016a, 2016b) including webs and composting are included in this work, drawing out more organic and dynamic renderings of relational connections and interactions with the more-than-human community. Bruno Latour and colleagues' Actor Network Theory (ANT) has also been influential, and numerous other researchers from geography and allied fields have contributed to interdisciplinary conversation building and critiquing both cyborg and Actor Network frameworks.

Actor Network Theory asserts that humans and non-humans are a part of board networks through which social and physical interactions are few of the many links that connect them to one another (Latour 2005). This inclusion of non-humans in these networks fills the gaps of labor and engagement overlooked and oversimplified by traditional approaches to sociology (Latour 1992). Latour's use of networks challenges the stabilizing and unifying use of "social" as a descriptor, employing it instead as a "tracing of associations" (Latour 2005). Latour, Callon and Law's Actor Network Theory

(ANT), and it's use of "networks" is adopted within Whatmore's (2002) concept of hybrid geographies. While "networks" have been used to represent number of relational dynamics, it has also been critiqued for a heterogeneous treatment of actors which obscures power relations and dynamic representations (Marston et al. 2005). In my analysis, I adopt "webs" as both a methophor for the organismal and dynamic relations in garden settlings, and as a multi-dimensional tracing of relations that challenges of flat ontology of "networks."

Hybrid geographies place particular interest on everyday interactions that constitute dwelling, and the ethical considerations held within. Hybrid geography is a critical tool for decentering human agency by emphasizing inter-subjectivity, or knowledge production that exists between and within actors, to intertwine subject, object, social and material components. Inter-subjectivity allows for extralinguistic engagement with non-human others, influential in the production of hybrid geographies, geographies which she (2002 p. 4) defines as:

a radical tack on social agency maneuvering between two theoretical commitments. The first is to the de-centering of social agency, apprehending it as a 'precarious achievement' spun between social actors rather than a manifestation of unitary intent (Law, 1994: 101). The second is to its decoupling from the subject/object binary such that the material and the social intertwine and interact in all manner of promiscuous combinations.

Hybrid geographies also assert the need for a more corporeal approach, one that is of the material body, to weave together social and material components of phenomenon. To achieve a more interrogative "inter-corporeality" Whatmore (2002) draws on Elizabeth Grosz's (1994) *Volatile Bodies: Toward a Corporeal Feminism,* defining corporeality of as a "living assemblage of corporeal dispositions and relations which both register and orient our senses of the world." This inter-corporeality better illustrates the material consequences of social and physical engagement in social networks or webs, rendering more genuine and tangible representations of dwelling in more-than-human worlds.

Hybrid geographies illustrate this orientation in the world through perpetual renegotiation of relational dynamics where the agency, or the ability to influence or engage in interactions, of social actors are not created wholly through autonomy of self but by relations between actors. Whatmore's (2002) hybridity "articulates the fluxes of becoming that complicate the space–timings of social life, and expressive of the creative impulse of more than human energies." Hybrid geographies build upon Latour's critique of hybridity as a mixture of pure forms, which Whatmore problematizes as "one-plus-one logic." Instead of creating hybridity as a departure from the status quo, hybrid geographies acknowledge the hybridity we (humans) already exist within, but do not recognize. Hybridity which "compels us to acknowledge that not only does 'humanity' always already 'dwell among badly analyzed composites [like nature or the non-human] but that 'we' ourselves [the human-all-too-human] are badly analyzed composites' (Ansell-Pearson, 1997: 7)" (Whatmore 2002 p. 165).

Hybrid geographies place specific interest in the hybridity arising from the orderings of everyday life, that of dwelling which are often overlooked in the writings of her contemporaries in both feminist Science and Technology Studies and the Social Studies of Science. In doing so, hybrid geographies "interrogate the ways in which nature–culture hybrids are apprehended through activities like consumption, and their interferences resisted and accommodated in the intimate fabric of social life" (Whatmore 2002 p. 6). This interrogation is that which I engage to explore the urban private gardens in Baton Rouge.

1.5 Garden Research in More-than-human Worlds

Agricultural practices and gardens are productive areas for the study of human-environment relationships in more-than-human worlds; however much this work has been applied to animals. Plants are central to garden communities and the physical environment as whole, but are frequently overlooked in the literature on more-than-human worlds. Head and Atchison (2009) attribute this under-representation in the field to be linked to circumscriptions of plants as assemblages rather than

individuals. Study of human-plant interaction is on the rise in geography and other disciplines. Paul Robbins (2007) has championed the analysis of lawns as critical social theory in this book *Lawn people: How grasses, weeds, and chemicals make us who we are.* In 2012, a panel at the American Association of Geographers Annual Meeting resulted in a 2014 special issue of *Social & Cultural Geography* focused on "vegetal politics" (Head et al. 2014). Head and other contributors emphasize the need to include plant non-humans into research given plants' fundamental importance to human wellbeing and our longstanding relationship with them. While this research explores the relations of a diverse number of more-than-human garden inhabitants, it places particular interest on plant inhabitants in efforts narrow this gap and consider them within the ethical communities of Whatmore's hybrid geographies.

Applications of more-than-human methodologies in gardens began appearing in the literature in the late 1990s and early 2000s to present, however earlier literatures discuss these engagements prior to the popularization of the term "more-than-human." Paul Cloke and Owain Jones (2001 p.649) adopt actor network theory (ANT) to analyze a Somerset orchard as a place of "hybrid constructions of culture and nature." Cloke and Jones examine the agency of orchard trees in the reproduction of humanenvironment relations and sense of place in the developing landscape of Somerset by following a campaign to identify the status and importance of orchards. For Cloke and Jones (2001), concepts of both ANT and dwelling are missing critical components that reduce the authenticity of the site and subject, and the efficacy of resulting conclusions. Actor Network Theory, though useful for tracing multiple actors, lacks deeper representations of place and specificity, rendering the dwelling perspective more static and less hybrid in the case of Somerset orchards.

Russell Hitchings (2003) also adopts Actor Network Theory to highlight plant materiality and garden performance in urban private gardens of London. Hitchings utilizes the approach as a "general attitude" for awareness and sensitivity of the numerous forces or agents around us, and how they interact. Employing semi-structured interviews and garden walk-throughs, he explores how humans

and non-humans "worked together" to create the garden. In his analysis, Hitchings concluded that an actor network approach could be effectively applied to domestic garden settings, and illustrated the coconstruction and hybridity of the garden as power shifted between humans and plants. However, Hitchings perspective of human-plant relationships seems disingenuously harmonious and perpetuates human-centered discourse of private gardens.

Emma Power's (2005) use of ANT in garden research seeks to emphasize not only the hybridity of the gardens and the shifting of power between actors, but to further decenter the human inhabitant in the garden. Power argues that the human centered focus of Hitchings (2003) and others perpetuates romanticized notions of human-environment relations and that of human-nature binaries. Instead, she presents less harmonious relations within private gardens of north Sydney using semi-structured interviews and an analysis of popular gardening magazines. Power identifies contentious relationships (i.e. weeds and weeding) and those of care. She contends that agency and power of plants shape both gardens and gardeners, and further substantiates the hybridity of gardens and the active roles of nonhumans in the landscape.

Also working in Australia, Lesley Head and Pat Muir (2006) explore spatial boundary making and native plants. Head and Muir employ Whatmore's hybrid geography to identify resilience and rupture of multiple dualisms which are overlain in the attitudes and practices of suburban gardeners. Head and Muir's work is formative to this study, also drawing from work in dwelling, and identifying boundaries between human and non-humans. They employ the term resilience to discuss the perpetuation of human separateness from nature through garden practices which seek to re-inforce binaries like native/non-native and attempts at control of the garden space and neighbors' actions. Head and Muir conclude that the hybridity which "ruptures" these dualism is achieved through labor, engagement and observation within the garden. However, resiliency of these dualisms is informed by separatist views in

ecological sciences which perpetuate colonial attitudes and anxieties surrounding belonging (Head and Muir 2006).

1.6 Methodology

This section outlines the methodologies used to conduct this research, which aims to examine everyday encounters of garden inhabitants to inform ideas surrounding garden practice and hybridity. Drawing from other garden studies including Hitchings (2003), Power (2005), and Head and Muir (2006), I adopt semi-structured interviews to target information on the ordinary, everyday interactions within garden settings. Semi-structured interviews were framed in life-history context to gain insights into past and present associations and relationships within gardens, and how they change over time. By engaging on an individual level instead of groups, these interviews help illuminate the process of dwelling for the individual rather than a recounting of historical events (Perks and Thomson 2015). For the purpose of this study, these interviews provide insights on individual engagements with gardens and the commonalities of these engagements across the Baton Rouge gardening community.

Harriet Gross and Nicola Lane (2007) adopt this life-history approach in *Landscapes of the lifespan: Exploring accounts of own gardens and gardening.* This methodology also allows the process of dwelling to emerge in the recounting of garden stories. Studies of gardens are often static representations of garden interactions. By using life-history frameworks, interviews more accurately reflect the dynamism of garden relationships over temporal and spatial scales. Such questions included "Who are people in your life that garden and what did they grow?", "What was your yard like when you were growing up?," and "How did you get into gardening?" Furthermore, interview questions sought to gain insight to participants' future plans in regards to garden. A full list of interview questions can be found in Appendix A. Interviews were structured to meet criteria for inclusion within the LSU Library's T. Harry William's Oral History Center collection, and as such, participants also submitted interview and media release forms (Appendix B) and biographical data forms (Appendix C). As an oral history centered

project, no IRB review was needed as indicated by the LSU Institutional Review Board comment found in Appendix D.

Garden walk-throughs followed each interview to gain spatial and compositional understandings of the participant's yard and garden. Walk-throughs and garden tours were also utilized by other garden researchers including Power (2005), Hitching (2003), and Head and Muir (2006). These walk-throughs served as rich sources of additional ethnographic material, including photographs, field notes, and researcher's sketches. These materials provided deeper insights into the vernacular nature of each garden, as well as the use and relation to space and spaces within the garden and the surrounding community. Examples of garden sketches can be found in Appendix G.

Participants were recruited via email (Appendix E) and word of mouth utilizing existing garden and social networks. Interested individuals completed a recruitment survey (Appendix F) to determine if their garden was eligible for the study. These garden eligibility requirements included: within Baton Rouge city limits, created and maintained by resident, and located at home residence or personal business. In total, nine participants were recorded in eight interviews. Participants ranging in age from thirty-four to eighty-four included four men, four women, and one non-binary individual, though eight of the nine participants were over the age of fifty-five. All participants consented to the use of photos (Appendix B) and their first name as identifiers, which is reflected in this document.

Chapter 2: Tracing Relations

Finding the seed that started the gardener is not an easy task, nor is examining the gardener's current multidimensional motivations. Frances Kiesling and Christie Manning's (2010) review of gardening motivations include: (1) creative expression, (2) health promotion, (3) production of food crops, (4) opportunities for knowledge enhancement, (5) connections with nature, (6) social benefits, and (7) expressions of faith. Many of these motivations to garden are relationally constructed, connected to other humans and non-humans near and far, living and dead. These relationships are dynamic, weaving the power of control and creation in the garden among various garden inhabitants. I explore these interwoven relationships as webs: organismal, organic, flexible, sticky, and under constant (re)construction. Other social theory has employed "networks" (Latour 1999), "meshworks" (Ingold 2008), "rhizomes" (Deleuze and Guattari 1987), "fluidity" (De Laet and Mol 2000), and "assemblages" (Robbins and Marks 2010) to trace the relations and engagements of social actors. I borrow this idea secondhand from Donna Haraway's (2016b) musings in Staying with the Trouble: Making Kin in the Chthulucene, who borrowed it from the spider; an often overlooked and misunderstood non-human inhabitant of home and garden. This term diverges somewhat from the framing of Whatmore's hybrid geography, which adopts Latour's network approach for its relational framework (Whatmore 2002). However, Whatmore's (2002) hybrid geography pre-dates the tentacular thinking of Haraway's (Haraway 2016a, 2016b) Chthulucene, a theoretical alternative for confronting the current proposed crisis of the Anthropocene. Webs of relations stretch beyond the garden setting into the public sphere and institutionalized bodies of knowledge and practice (i.e. corporate industry, garden centers, publications, expert groups, schools, etc.). Tracing the construction of these webs help us understand the garden as a hybrid space, which illustrates how humans and non-humans "make ourselves at home in the world" (Ingold 2000) and provides entry points into dissolving the human-nature binaries of the urban private garden (Head and Muir 2006).

The participants of this study provide insights into relations engaged in garden practice in Baton Rouge. These relations between and among human and non-human subjects, both material and social, contribute to the individual identities of garden inhabitants; and also fashion the collective identity of the garden itself. Though these relational webs differ in composition between gardens, common strands include: (1) friends and family, (2) fear and loss, (3) community, (4) labor, (5) care and discrimination, (6) addiction, and (7) reward and reciprocity. Many of these strands intersect and overlap in the garden and beyond as garden inhabitants engage in daily activities. These webs manifest as relationships of care, contention, and expectation that can exist independently or simultaneously in the garden space. These relations and interactions also render the more-than-human community of the urban garden. These communities are dynamic, and change over time as humans and non-humans interact in the garden. The following sections trace these relationships found within communities as the first step in recognizing hybridity of the garden and its application as a tool for exploring the human-nature dualism. We will explore human ties with friends, family, and community in the context of gardening through interviews and participant observation. We will find connections among people, plants, and other non-humans. We will witness affection, violence, care, and coercion as participants share their garden stories.

2.1 Friends and Family

Gardeners place meaning and construct relationships with certain spaces or non-human organisms based on connections to living and deceased friends and family, or memories of childhood. Ken, Inger, and Bob are three such gardeners. Study participants emphasized specific connections between plants, other people, and their gardening practices. Garden spaces provide ways of mourning or remembering certain people (Bhatti and Church 2001, Gross and Lane 2007), but also navigating the gardener's confrontations with personal identity (Ginn 2014). Beyond the gardener, other humans may be found in relation with the garden. Students or community members may be invited into the garden to work in preparation for an event, or as a way to pass the time. As such, these Baton Rouge gardens become sites of social networking between humans, whether for labor, mentorship, or leisure.

Ken's initial introduction into gardening was as a means to please two very important women in his life. Ken's garden started in childhood after bringing home yellow roses to his mother. She loved roses; so he rooted them at this childhood home for his mother's continued enjoyment. Overtime, the roses demanded a trellis and garden came to life as Ken experimented with seeds and potatoes. Years later at his current residence, Ken's garden was created so that his wife, a "marvelous cook," could prepare meals for family and friends with seasonal vegetables and fresh herbs. Though he has now converted the garden into something related to his own interests, his initial forays into the realms of gardening were connected to his family as forms of domestic engagement and social reproduction. Ken mentions his wife multiple times in our interview. Since her passing three years ago, the garden has given Ken a new purpose and opportunities for additional social connections (Gross and Lane 2007). Inger, a front yard flower gardener, also has established deep connections to other people through the garden. She began growing plants and gardening from a young age while playing in her grandfather's garden. She tells me "I've always loved flowers," and has been beautifying her current residence for the past twenty-four years. Inger has intimate relations of care with other garden inhabitants, which include statues, shrubs, small trees, and her beloved flowers (Figure 2). Many of the flowers were gifts from friends or family, which are especially important to her. She feels these plants give and "transform" the love that was given in the gift. "When they bloom, it means a lot," she says, and every year the plants return to her yard to give more love. Multiple rose bushes now thrive in her yard; the parent plant a gift from her husband which she had him transplant when they moved here twenty-four years ago. Inger's favorite plant, the Amarila, was given to her by her deceased mother-in-law. It too has multiplied over the years, and is found in many areas of the yard. Flowers embody the affection of Inger's husband and the memories of her mother-in-law, and many of her careful and thoughtful practices reflect the intimacies of these relationships.



Figure 2 Plants, statues, and other inhabitants of Inger's garden (Author's photo, 1/21/17) Bob, a camellia collector and native plant enthusiast, is a long term Baton Rouge resident. His garden relations are deeply woven into both the garden and Baton Rouge community. Bob's yard and garden also happens to be his childhood home and is filled with memories of his parents. His parents are also embedded in the material landscape, such as his father's camellia collection and his mother's flower bed. Bob has been involved in the Baton Rouge gardening community for over forty years, and

nearly every plant in his yard is connected to someone he cares for. Prior to retirement, Bob's leisure and work time often revolved around plants, traveling to garden shows, tours, and lectures around the southeast United States. As Bob took me through his yard, he shared many stories of cross country travels to plant shows where he procured plants from friends' nurseries. He told me about an intern who loved his camellia collection, his interactions with his parents and own children in the yard, and of the numerous groups and events that utilized the yard and garden over the years. A number of the plants in Bob's yard came from these experiences or were given to him by friends and family. His most memorable stories are those associated with Hilltop Arboretum.

Bob was inspired by his friend Emory Smith (1891-1988), a Baton Rouge resident and plant collector that purchased the site now known as LSU Hilltop Arboretum in 1929. Smith pioneered natural landscaping in the Baton Rouge area and collected hundreds of native plants which he incorporated into his farm at Hilltop (LSU Hilltop Arboretum 2017). In 1981, he donated the property to Louisiana State University as a teaching lab for university students and Baton Rouge residents. Bob continued volunteering with Hilltop as Marion Drummond (1930-2013) became the first site director in 1992. Many of Bob's colorful stories of plant procurement are associated with Marion, as are numerous plants found in the yard. Both Emory and Marion were influential in Bob's continued engagement in the gardening community. Despite their passing, they both still inspire Louisiana gardeners like Bob.

Bob is a private individual, but having other people enjoy the yard and garden is important to him. Over the years, the yard and garden have seen many events as a site of childhood experiences, neighborhood gatherings, weddings, and prestigious garden tours. These days, the garden sees much less human activity as his children are grown and his wife has recently passed away. Bob reflects, as mentioned in Gross and Lane (2007), on the missed opportunities for social engagements in the garden. "I've always thought we didn't use it enough," he says, as his grown children rarely have time to share it will him and the labor to maintain it is beyond his means. But the garden is not without visitors,

professors from Louisiana State University occasionally bring classes and use his yard as a teaching tool for landscape design students. Garden clubs have recently toured the property to learn about his diverse collection of ferns. However, maintaining the yard and garden can be an intensive process; and he is concerned about the future of the garden and the labor it requires as he ages. This concern about the manual labor required to maintain a garden is also noted by other participants.

2.2 Fear and Loss

In *Death, absence, and afterlife in the garden*, Franklin Ginn (2014) discusses gardens as landscapes of life processes, illustrating how gardeners confront both death and absence in the garden. Ginn further elaborates about loss of gardener identity that is associated with declining physical abilities. Gross and Lane (2007) recognize a similar pattern in older participants, noting the anxiety and frustration in their interviews. Many study participants felt concern about their physical ability to work in the yard as they get older. These concerns are reflected in changes to garden practice and relationships with non-human garden inhabitants.

Mary, now eighty-five, once rehabilitated birds in her garden. However, due to the time and effort involved, the holding pen is now in disrepair. While she is quite able-bodied in her eighties, she speaks candidly about the inevitability of her relocation into assisted living, about the lack of gardens and gardening opportunities in most senior living facilities. Many of her friends are already in these situations and visit her garden to enjoy what she has created. Mary describes the potential loss of her garden as a threat to her creative identity and expression, in which the garden is central. As Ginn (2014) suggests, these confrontations with loss of personal identity exiles the gardener from the garden and makes them strangers to themselves as they grapple with their own mortality.

I just know as I get older and older I'm going to need some help keeping everything happy. (Ruth 12/2/16)

I just want to be able to keep doing it...it's good exercise... I would like to continue that as long as I can health-wise. (Wally 11/29/16)

I am not a young spring chicken.... when it comes to where I have to think about a move... [to] assisted living or nursing home.... it would certainly be different... As we get older we have to adjust.... but I would definitely still have potted plants. (Mary 12/16/16

Gardeners also fear for the loss of the garden itself, including both the social and material components it entails. Bob feels unable to keep up with the labor required to meet the standards of garden tours which brings others to his home. Bob is also concerned for the fate of the house and garden when he can no longer take care of grounds and building, or no longer lives there. Bob sees the garden as an artifact itself, with needs to be preserved for its' own history and richness. Bob's home and garden was built and designed by his parents to "bring the outdoors in." We conducted our interview in his living room, looking out through a wall of windows into his lush backyard. Over the years, Bob has maintained and expanded the garden with an ever-growing diversity of camellias and native plants.

It's going to waste; I would like to find a way to sell it to one of my kids.... they don't I wouldn't want someone to move in here and cut everything down, that's probably what would happen if I sold it to a stranger... I always said I would never move away from here but actually I'm getting a little older and it's hard to maintain it ... I don't want it to end up in the hands of somebody who's going to cut everything down. I see that happening an awful lot.

Bob recounts the loss of T. Harry William's and George Lowery's homes and gardens which were in his neighborhood. Both of these individuals were well known Baton Rouge residents, and were professors at Louisiana State University. Williams is commemorated in the establishment of the LSU Library's T. Harry Williams Center for Oral History in 1979 (LSU Libraries 2017). Lowery founded the LSU Museum of Natural Science in 1936 and maintained an expansive property with forested sections and trails. Bob speaks to the loss of both of these garden spaces with great sadness, repeating that "something was really lost" when the lots were sold and altered by new owners. We have some older homes here in the neighborhood...T. Harry Williams the historian used to live right over here.... you couldn't even see his house, it was basically a wooded lot.....he had a lot of nice old camellias and azaleas....somebody bought it and opened it all up, it's just a front lawn... if you knew what it was before....something really got lost in there.

Dr. Lowery used to live here in the back of the neighborhood. He had a bird sanctuary back here.... his house is gone now.... something was really lost from what he had back there.... he had miles and miles of trails cut through that swamp...feeding stations and observation stations. We used to go back there as kids.... that's all gone now, there's just two expensive houses. (Bob 12/2/16)

Despite gardeners' concerns about the future of the garden, study participants aspire to continue maintaining it as long as possible. Many gardeners are already reaching out to their friends, family, and community to help maintain the garden or to encourage gardening activities beyond that of their own home.

2.3 Community

Bringing other people into the garden is one of the many joys of gardeners like Bob. The experiences of the garden can often lead to deep personal connections that reach outside of the private garden and into the public sphere. Many Baton Rouge gardeners find great pleasure and self-fulfillment in working and sharing ideas with the wider community. Gardeners may hire temporary student help to assist with garden upkeep and support struggling students. Others assist with volunteer projects like community or school gardens, especially those that are certified Louisiana Master Gardeners. Relations within the private garden can reach out and influence, or in turn be influenced by, larger networks and socio-cultural frameworks.

For special events or big tasks, Bob is able to procure the occasional student from Hilltop or the Landscape Design program to assist with the physical labor in his garden. Despite their academic experience, Bob finds many of the students are less knowledgeable about gardening, thus he instructs them on how to maintain the yard. Bob recounts this story of one student with satisfaction, who was inspired by his camellia collection and remains in contact to this day. Bob is not the only gardener that mentors in the garden or shares his appreciation for plants. Harold works at a school and has hired high school students to help with his yard. Harold's collection of plants is extensive, including a wide variety of tropical plants, trees, shrubs, and flowering perennials. He hires students not only to help maintain his yard, but to give them needed skills for life: "I'll teach them what they need to do. I really feel like in some ways it's imparting life skills to them... That's been a good relationship." (Harold 1/8/17).

Other participants also used gardens as spaces to teach others and contribute to the community. Aaron works both in their private garden and with Baton Rouge community gardens. Aaron invites neighbors both into their private garden and the community garden to provide members of the African American community increased access to fresh produce and the skills to grow it themselves.

Being able to bring in and teach other kids and other people that don't know about it... anytime they want they can come take a tour and see what's growing... I always enjoy being able to pass the little knowledge I do have on to the next person. (Aaron 12/4/16)

In their previous job as a teacher, Aaron installed and used gardens as a teaching tool. Wally, a vegetable gardener and Louisiana Master Gardener, installed a vegetable garden at a local school. Ruth has aspirations of turning her adjacent lot into a community garden for the neighborhood so that they can create more compost from kitchen scraps across the neighborhood, put in more beds, and get additional help maintaining the garden. Ken, a butterfly gardener, has made a second career teaching others about pollinator gardening. Ken created an online social media forum that has reached over 600 members as of spring 2017.

You meet some really fascinating people... I probably would have just sat around the house after my wife died...I'm out of the house every day now doing something, somewhere. (Ken 10/5/16)

With all the organizations to which I belong and the exposures I've had to all of these other people...It [the garden] just seems to keep growing. (Mary 12/16/16)

For many participants, gardening activities drew them into local gardening groups like the Louisiana Master Gardeners, the Louisiana and Capital Area Native Plant Societies, the Baton Rouge Garden Club, Hilltop Hodge Podgers, and community gardening around the city. Engagements with these groups not only help hone their skills and knowledge, but provide opportunities for social networking, friendships, and community service. This is especially true to retired participants. However, even volunteerism and garden clubs take work, and a number of participants find themselves quite busy with both organizational involvement and the labor required by the garden.

2.4 Labor

The labor of human garden inhabitants creates expectations for plants and other non-humans to perform or work in specific ways. Hitchings describes this labor as a performance in which some garden inhabitants exert power over others so that their performance may take lead (2003). Plants are commonly expected to bloom, to produce food for humans or non-human wildlife, to stay within established bounds, to endure wind and rain, to resist pest and disease, and to be as self-sufficient as possible. Maintaining appearances, or aesthetics, is one of many expectations gardeners have for plants in the garden. To elicit plant labor, gardeners often go to great lengths, submitting to extensive labor themselves. This labor is more than just physical work, but also entails monetary and emotional investments.

I know every plant...so I'll just sit in bed...and think about each plant...not that they have names, that would be the next step (laughs)...think about how each one is doing and what each one needs...They become really very much what they are; living entities that you've personalized and know quite well. (Ruth 12/2/16)

Outside of the occasional high school assistant, Harold does most of the work himself, spending an average of ten to twelve hours a week on yard and garden upkeep. This task is just one of many competing with his full-time employment and raising three kids. I met with Harold the day after our only hard freeze of the winter. He struggled to protect his many plants, indicating his disappointment, guilt, and frustration throughout our interview.

I need it to be less maintenance at this point because we have kids that aren't interested in gardening.... that work is still mine, plus the work that goes on in the house... It's fun

as long as it's not something I'm behind on, when you get behind it becomes a chore. (Harold 1/8/17)

Though Harold loves flowers and gardening, his limited time and large collection has become a burden. He seemed to resent his garden and the labor involved on this particular day, referencing it as a "chore" and as "work." Harold's view was in contrast to observations in other garden research in which gardening is described as 'not real work' (Groening and Schneider 1999, Gross and Lane 2007). It wasn't until much later in the interview that I gained insights into his plight, witnessing what seemed like hundreds of tropical and succulent plants, neatly packed into the makeshift greenhouse of his large patio and potting shed. It was still cold out, and even as we continued our walk through and interview Harold did his best to seal up the greenhouse and protect the plants we had left behind (Figure 3).

While Harold's garden has transgressed a threshold that exists between "hobby" and "chore," other gardeners still find much fulfilment in garden work. Mary has also gone to great lengths to plant a variety of interesting species in her garden. Her shady, tree root littered yard was not conducive to planting, so she trucked in yards of soil to build up the garden. Now in her eighties, she still does all the yard work herself and has no intention of slowing down. However, Mary also recognizes the efforts of plant and animal allies in the garden as "living things you can relate to." Many gardeners have an innate understanding of plants and other non-humans as living beings to engage *with* rather than wholly acting *upon.* Hitchings (2003) relates this sentiment to the tracing of networks in the garden (Figure 4).

When framing relations from a human perspective, the gardener often performs as a designer, selecting plants and coercing specific forms of labor from them. However, if we trace these relations starting with the plant instead of the gardener, these roles change. Plants perform a "lively struggle" (Hitchings 2003) to exist in the garden, enrolling gardeners to care for them based on appealing qualities such as presence of attractive flowers or colorful foliage. These gardeners in turn personify them and become plantspeople (Figure 4; Hitchings 2003), working with or for plants who actively perform labor

in the garden space. These plants are recognized as individuals rather than the assemblages that are so often overlooked (Hitchings 2003, Head and Atchison 2009). These active or passive roles manifest both materially and socially depending on interactions with other garden inhabitants.

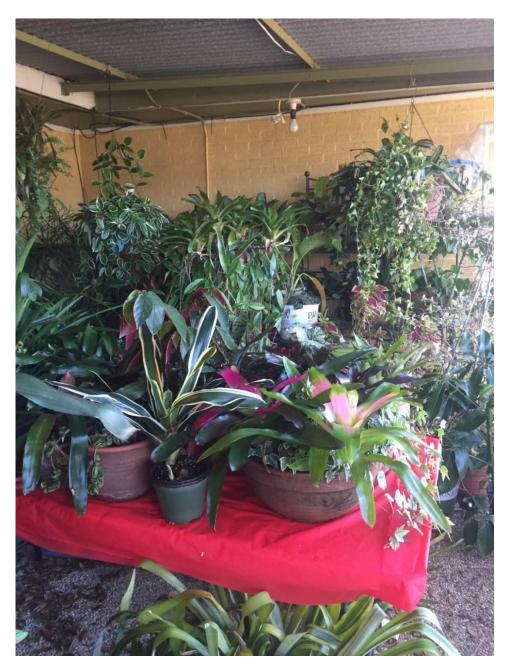


Figure 3 A selection of tropical plants protected within Harold's makeshift greenhouse (Author's photo, 1/8/17)

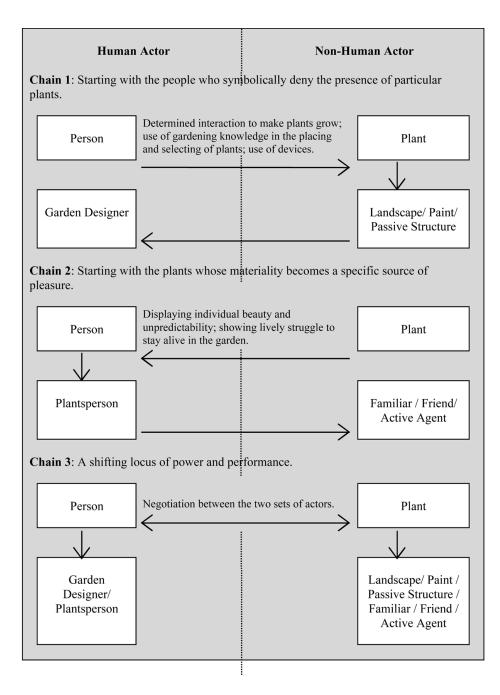


Figure 4 Chains of Enrollment in the garden from Hitchings 2003.

2.5 Care and Discrimination

Many gardeners perceive themselves as caretakers or co-creators in the garden. However, all non-humans are not extended the same forms of care or consideration. In addition, most garden inhabitants are expected to perform labor to warrant such care. Through this labor plants and animals influence the garden and gardener; but the materialization of this agency varies based on interactions with other garden inhabitants and the physical environment. Human preference for specific nonhumans, such as pollinators over plants, or flowering plants over noxious and undesired plants known as weed, can create contentious and sometimes violent relationships in garden spaces. But as Power (2005) suggests, attention to these contentious relationships are necessary to decentralize human agency in the garden, providing evidence for shifts in power between humans and non-humans. Cloke and Jones (2001) also find such relations to be fruitful areas of research, producing more authentic renderings of engagements with the more-than-human community and that of dwelling.

For Harold, flowers come first. Any pest or disease is immediately treated to protect his investments. Mary finds grass "boring" and has nearly eradicated all the turf grass from her backyard oasis of "pretties." Another contentious relationship arises from pervasive zoocentrism as gardeners show preference for non-human animals over plants. In Ken's yard, plants that rise to power are those that serve the needs of pollinators. A plant's failure to provide for lepidopterans may result in removal from the community, and sometimes even death. The resulting dynamic places butterflies in the superior position of power; and it all started with Ken's desire to help Monarch butterflies. Other gardeners also enjoy the wildlife that garden plants attract.

Watching butterflies is fun... We put plants in that butterflies like...it was immediate...so many butterflies this year. Just so wonderful to watch. (Janet 11/29/16)

The first time I seen one [a hummingbird], I was like a child it... was the most amazing thing. (Inger 1/21/17)

Monarch butterflies, a flagship species for pollinator decline, has leveraged human sympathies and increased awareness about habitat destruction and the lives of non-human others. Their charisma inspired Janet and Wally to install a butterfly garden including milkweed host plants (*Asclepias* spp.). The resulting "family" of monarchs, enthralled Janet and Wally, who invited other neighbors over to witness. "The whole neighborhood came to see them" she told me; and as the milkweeds produced new plants, the seedlings were distributed to neighbors so that they too could enjoy the Monarchs.

Milkweed (Asclepias sp.), in its support of Monarchs and other pollinators has become the "gateway drug" of pollinator gardener (Matthew Herron, personal communication, November 16, 2016). Milkweed is being propagated and spread by a number of individuals as well as programs like Monarch Watch, and the Monarch Joint Venture, the Xerces Society, local museums, and plant societies. Milkweeds not only benefit monarchs, but also provide rich nectar and forage plant for numerous species (Xerces Society 2011). Increased awareness of non-human animal and plant symbiosis has renewed the movement of "natural" or native plant landscaping. Participants rarely discussed the indigeneity of their garden inhabitants, and even those dedicated to pollinators would employ any plant regardless of origin if it supported pollinators. Native plant gardening, emphasis on wildlife value, and sustainable gardening practices have become increasingly important to Baton Rouge gardeners participating in this study, and arguably, to the general public. However, this shift towards native landscaping also has the potential to produce contentious relations and violent repercussions for nonnative plants already inhabiting the garden. Too often, the fate of plants in gardens are those of exploitation, whether it be for the benefit of human or non-human animals. Plants worthy of care are those that perform the most labor in what humans perceive as the proper way ecosystems function. This attitude towards plants and other non-humans perpetuates human exceptionalism and the humannature dualism as humans center themselves as controlling and dominating non-humans and ecological roles of the garden. Given extensive habitat loss and urbanization, increased rates of extinction, and considerations of anthropogenic climate change, it is difficult to argue this approach as entirely misguided. However, we must delve deeper into both the material and ethical implications of morethan-human communities as we attempt to control who or what deserves to thrive or die in the landscape.

2.6 Addiction

Mary is a self-described "plant addict." Mary began gardening when she married and settled in Baton Rouge forty years ago. She planted ferns and other shade tolerant plants, that have undergone

numerous iterations, now forming a large collection of plants. Mary was certain that many gardeners are also addicts that have intrinsic connections with plants, animals, and other non-humans. Other garden studies have also identified "plant addiction" (Gross and Lane 2007), and observations from social media including Facebook and Twitter also employ this phrase. Though other participants may not have used such stigmatizing language, this compulsion was none the less reflected in interviews:

We're addicts. We're compulsive, okay? And that's it! (Mary 12/16/16)

It's almost compulsion with me, I just started planting things, creating garden beds and paths, and pretty much filling in the back. (Bob 1/9/17)

Some of its almost a compulsion, if I see a bare space I start thinking 'well what can I put in there.' (Bob 1/9/17)

I went up there [to the Hilltop plant sale]. I wasn't going to buy a darn thing...I can't, I have no room...well I ended up buying a native viburnum. (Mary 12/16/16)

Much like addiction, these compulsions often feel outside of the participants control and can sometimes strain relationships with other humans. Inger's compulsion to plant and decorate every available space in her yard puts her at odds with her lawn-loving husband. Gifts of additional plants overwhelm Harold's already burdensome collection, creating resentment. Bob inevitably comes home from plants sales with something new after having no intention of buying. Ken's collection has increased beyond his control as members of his butterfly page share seeds and plants from around the state and nation.

While this compulsion could be wholly attributed to consumerist culture, there is something more to be said about "plant addiction" phenomenon. Such an addiction represents a dependency on plants or on nature, a need to escape through immersion in a different world. Stephan Kaplan (1995) attributes this connection to Attention Restoration Theory, in which the natural environment provides a reprieve from directed attention, decision making, and the mental fatigue of everyday life. Plant addicts, while perhaps feeding some consumptive impulses, may also be actively seeking the creation of what Gross and Lane (2007) call a "coherent other world." This other world allows for separation from stress,

disengagement from directed attention, and initiation of involuntary attention required for mental restoration (Kaplan 1995). Alternatively, these addicts may be afflicted by biophilia. Biophilia was first proposed by Erich Fromm (1973) and later popularized by E.O .Wilson (1984) in his *Biophilia Hypothesis*, which asserts that humans have an intrinsic tendency to find connections with nature and other forms of life (Wilson 1984). Whether gardeners seek attention restoration or experience innate biophilia, plants and other non-humans successfully gain human interest, enticing them into relations of care. Often, gardeners cannot identify what motivated them to garden to begin with. Statements such as "I've always been interested in plants/gardening" and "it's just natural" were common sentiments throughout the interviews.

I think the first time I ever went into the woods when I was little...I have memories of just wanting to dig up a little tree and bring it back with me.... try to recreate some of it. I used to camp a lot, I just love the southern woods. (Bob 1/9/17)

I just love flowers. (Inger 1/9/17)

I always did have a passion for plants. (Aaron 12/4/16)

I've always liked flowers... so I took classes in Horticulture... I worked as a florist... I just think they [flowers] are pretty. (Harold 1/8/17)

2.7 Reward and Reciprocity

These deep relations in urban gardens provide extensive reward for gardeners, whether it be relaxation, self-expression, social relations, or personal fulfillment. Many non-humans also reap benefits in gardens by enrolling human labor as the "human bumblebee." Michael Pollan (2001) popularized this idea with his publication of *Botany of Desire: a plant's-eye view of the world*, which was subsequently made into a four-part documentary by the Public Broadcasting Service in 2009. Pollan (2001) asks us to consider if we, the gardener, are being subjected to the whims of our favorite plant to spread its genetic material, reduce competition, and nurture allied garden inhabitants. Pollan (2001) attempts to take on the perspective of four plants; apples, tulips, cannabis, and potatoes, and traces the ways each appeals to human desires. These plants ultimately reward the gardener with sweetness, beauty, intoxication,

and control. Other gardeners are enthralled by the charms of non-human animals, like birds and butterflies, and install feeders and water features for wildlife to enjoy (Figure 5). These deliberate constructions of human/non-human relations are fueled by what Gross and Lane (2007) deem the "reciprocity of nature-human relationships." This reciprocity rewards the gardener for active participation with non-humans, often through observation.



Figure 5 Feeder and fountains in Bob's yard (Author's photo, 12/2/16)

Further, wildlife like birds and butterflies receive shelter and food plants from gardeners like Bob, Ken, Janet, and Wally. Ken, Janet, and Wally also raise lepidopteran offspring, and at one time Mary rehabilitated wildlife in her yard. Plants that flower in Inger's garden are rewarded with verbal and physical affection and on-going care, resulting in their annual return to the garden. Colorful flowers and fruits of certain plants recommend themselves to gardeners and garden industry, resulting in their planting and propagation in new habitats. Non-humans' role in family history or personal values also leads to protection from elements or other threats, such as removal. Reward and reciprocity motivate continued engagement and relationship building in the garden, informing garden practice and the shifting of garden relations and composition over time.

Chapter 3: Garden Practice

Garden relations and practices are continually informing one another in the vernacular garden. Chapter Two explored the webs of relations among garden inhabitants, identifying the importance of human to human relationships as an interpretive frame for relations to plants, other non-humans, and to the garden as a whole. Chapter Two also identified the active roles of non-humans, and described the intersection between human and other non-human inhabitants. As vernacular artifacts, both garden practices and gardens themselves are subject to change as ideas and relationships change (Longstaffe-Gowan 1993) or as external pressures such as climate interact with the garden community.

Chapter Three pursues the question: How do these relationships influence garden practices? The following sections will interpret relational aspects into that of everyday garden practice through: (1) planting and selecting, (2) improvisation and transformation, (3) observing and immersing, (4) talking and touching, (5) resisting and protecting, and (6) reproduction. These practices contribute to the production of hybrid garden spaces which move beyond static, human-centered interpretations of gardens. Examination of these practices offers rich insights into the boundaries between human and non-human, and how these boundaries may be perpetuated and/or dissolved through garden practice.

Garden practices are also influenced by aspects of the physical environment, including climate, topography, and soils. Gardeners have minimal control over these influences though many participants adapt their garden practices through research and trial and error. With an average of 260 growing days a year (Yodis and Colten 2012), Baton Rouge's subtropical climate provides extensive opportunities for garden practice. This climate also places Baton Rouge within the U.S. Department of Agriculture Hardiness zones 8-9 (according to the 2005 map update, USDA 2012), indicating short, mild winters. Hardiness zones are standard measure for determining areas in which plants might thrive, and are used in the marketing of plants and gardening resources. Despite Baton Rouge's mild winters, an unexpected freeze may catch gardeners off guard. One such event occurred the night before my interview with

Harold. His diverse collection of tropical plants suffered due to lack of time and resources to protect them, and his resentment was reflected in much of our interview. Gardening is "You and Nature against the elements, seeing what you created" he says. For Harold, these "elements" of the physical environment are his nemesis as he bands together with "Nature" to create something beautiful in the landscape. This othering in the garden is the basis for many gardening practices as more-than-human garden inhabitants take on roles as allies or foes. In the urban vernacular garden, the most recognizable of these allies are plants.

3.1 Planting and Selecting

Planting and Selecting are central practices in the creation of garden spaces. Here, I include the practice of plant selection as one of the elements of planting. A plant's persistence in the garden over time indicates its ongoing labor, or "lively struggle" to maintain its place in the garden (Hitchings 2003). This continued selection of the plant by the gardener reflects the ongoing valuation of the plant in the landscape as well as the shifting relationships and decisions that render dynamic, hybrid spaces under constant renegotiation. Communities of garden inhabitants undergo significant shifts in population demographics over time as plants are procured from local or commercial stores and nurseries, received as gifts from friends or family, "rescued" from less fortunate circumstances, age within the garden community, or simply move in unannounced (volunteers). Garden practices and relations change in response to these community changes. As illustrated in Chapter Two, the human autonomy and control in garden is not as complete as gardens like to believe. Many gardeners find themselves serving, intentionally or not, the means and needs of non-human garden inhabitants. Whether indirectly through evolutionary mechanisms of symbiosis, biophilia, or deeper spiritual aspects of human/non-human relations, humans too can be enrolled into action by the non-human community.

Nurturing a plant through both its establishment and maturation requires commitment to constant attention and labor. While most participants purchase and plant either young or mature

plants; some gardeners started plants from their embryonic stage as a seed. Seeds were most commonly planted by those who cultivated vegetables, including Wally, Aaron, and Ruth. For these gardeners, starting plants from seed was an important part of the gardening practice and a way to reduce monetary inputs. Starting from seed facilitates long-term observation and response to growing needs from germination to harvest. Starting from seed also provides challenge and learning opportunities valued by the gardener, strengthening intimate interactions with other non-humans.

Overall, gardeners select plants that meet their personal needs or desires. As one would expect, gardeners select for suitability to their yard, including light, substrate, and water requirements. But gardeners also selected plants based on the maintenance required, matching plants to the quantity of labor they were willing to perform. Gardeners like Inger, Mary, Janet, and Harold value the aesthetics and design aspects of their gardens, and frequently perform roles as garden designers (Hitchings 2003). They select plants for color, shape, texture, height, and other design components. However, many of these gardeners also take on roles as plantspeople, depending on the non-human they were interacting with. Inger, Mary, and Janet perform particularly sensitive roles as plantspeople, celebrating and mourning the passage of non-humans through the garden as they would a human. These gardeners enjoy the plants both for their contributions as an individual organisms and for their collective roles in the assemblage of the garden community.

Gardeners interested in pollinator or habitat gardening select plants based on wildlife value, such as time and length of bloom, nectar and fruit production, or as forage and shelter. For Ken, plants that do not provide food for wildlife are on the "endangered species list" in his yard. He pointed out a Chinese Dogwood given to him by his daughter as well as an exotic giant dutchman's pipe vine that failed to yield pipevine swallowtail caterpillars. I learned later that this particular species of Dutchman's pipe (*Aristolochia gigantea*) was toxic to caterpillars. When I informed Ken, he promptly responded that he had already pulled it up and replaced it with a native, caterpillar friendly species. Bob also focuses on

wildlife value, stating "If it [plants] doesn't provide habitat [for wildlife], I probably won't plant it". Bob justifies the continued maintenance and expansion of his non-native camellia collection not only for their diverse phenotypic traits and the memories embedded within them, but as valuable winter nectar plants for hummingbirds and pollinators.

Plant selection is also dependent on garden design, design which may be influenced by the gardener identities and values, neighborhood norms and wider social pressures. These pressures influence spatial considerations of garden practice. For some, front yards are reserved for flowers and ornamental plants to meet neighborhood norms expecting presentable front lawns and garden which showcase the residence (Nassauer 2009, Robbins 2007). Vegetation in yards add value to both the home and surrounding community (Nassauer 2009, Robbins 2007), providing additional incentives and pressures for upkeep. Aaron is a long term rental tenant and is keenly aware of the social pressures and neighborhood norms for the Baton Rouge front yard. They use ornamental plants and decorative pots to maintain the curb appeal of the property, keeping the lawn and shrubs maintained to appease the landlord and neighbors. Aaron uses the backyard for the vegetable garden as do other gardeners, and also raises chickens (Figure 6).

The backyard is often used as more creative and personal spaces by Baton Rouge gardeners. As an outdoor living room (Groening and Schneider 1999), backyards may have more plants and structural aspects like water features, benches, dining sets, fire pits, work tables, and storage (Figure 7). They are often more informal than the front yard, reflecting improvisation and personal expression in vernacular spaces (Groening and Schneider 1999). However, gardeners like Inger specifically focus on the front yard to avoid interference from her dogs and husband (Figure 8).

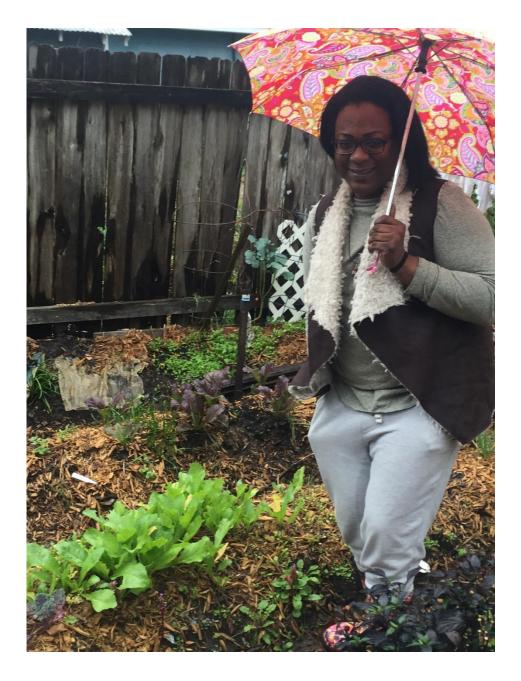


Figure 6 Aaron and their vegetable garden (Author's photo, 12/4/16)

3.2 Improvising and Transforming

Improvisation is an integral part of garden practice for study participants, who adapt and adopt new techniques and non-human garden inhabitants over time. These improvisational garden practices provide personal challenge and creative expression (Gross and Lane 2007) which many participants valued.



Figure 7 Janet and Wally's backyard patio (Author's photo, 11/29/16)



Figure 8 Inger's front yard garden bed (Author's photo, 1/21/17)

I see things [plants and statues] as art.... I love decorating, I love to sit and watch things and then I get an idea.... it's visual. (Inger 1/21/17)

I like to just go do research, dig into it deeper and deeper. If I'm not sure where to plant a plant, I'll plant it in three different locations.... it's just fun, it keeps me entertained. (Ken 10/5/16)

Any kind of hobby I have I like to do a lot of research... So I did a lot of that. (Aaron 12/4/16)

We had to cut down this maple tree right outside here... the boys across the street help us cut it down and the neighbor next door had some bricks we could have so we built a bed.... somebody had given us 6 packets of zinnia seeds.... We had zinnias in there and it was just gorgeous. The butterflies loved it. (Wally 11/29/16)

Improvisation often fulfills a personal desire to create change. As such, improvisation is a transformative practice. Following the loss of the old maple tree in the front yard, Janet and Wally transformed the stump into a flowerbed and placed potted plants on top (Figure 9). Blank slates or "boring" lawns can be transformed into art gardens filled with diverse collections of sculptures and shade loving plants that spillover onto walkways (Figure 10). These transformative practices are examples of interactions of everyday knowledge and practice which produce dwelling in the garden (Figure 11).



Figure 9 Janet and Wally's stump garden (Author's photo 11/29/16)



Figure 10 Art and ferns in Mary's yard (Author's photo, 12/16/16)



Figure 11 Ruth's vegetable garden and cat enclosure (Author's photo, 12/2/16)

Some gardeners adopt or adapt existing landscaping when taking on a new residence. These established non-human garden inhabitants hold status in the garden and demand care of the new human inhabitants. These seasoned non-humans influence the homeowner's garden practice and relationships with other non-humans as well as themselves.

This home had many beds already established around the perimeter. So there was this prompting like, "take care of these azaleas"... and there are some really old gardenias that are just gorgeous.... you're not going to just take them out... instead you're going to figure out how to care for them. (Ruth 12/2/16)

Other gardeners like Ken transform the garden through antagonistic yet creative practices that are influenced by preferences for particular non-humans. By removing mature Bradford pears, an invasive species, as well as an iconic bald cypress, Ken created favorable conditions to transform what was once a vegetable garden into a quickly expanding butterfly garden. Ken's preference for butterflies in the garden overshadows the needs and value of long standing garden residents, the Bradford pear and cypress tree. This scenario illustrates the differential treatment of non-humans in the garden and how these unequal relations influence garden practices. Removal of the trees transformed both the structural characteristics and microclimate of the garden enabling subsequent change and establishment in the non-human garden community through planting and observation. Ken's service to butterflies also threatens an object of familial connection, the Chinese Dogwood given to him by his daughter. The dogwood's poor performance as a host plant warrants complete removal from the garden community.

Garden transformations may be intentional on the part of the gardener, or may be caused by other garden inhabitants and outside forces. At one time Bob maintained a vegetable garden in the back yard. Yet as the trees matured, they began to shade out the possibilities for such cultivation. Other transformations are rapid, caused by catastrophic events outside of the garden inhabitants' control. On

September 1, 2008 Hurricane Gustav barreled into Baton Rouge, downing trees, damaging property, and claiming a total forty-eight lives in southern Louisiana (National Hurricane Center 2009). Janet and Wally's garden was severely impacted, losing several trees which damaged underground sewage lines along their back fence. Both the loss of tree cover and repercussions of city work crews turned the backyard into a "mud pit," killing citrus trees and demolishing a garden bed. Janet was devastated by the state of the garden. "I couldn't even go outside, I kept all the blinds shut so I wouldn't see it," she tells me. Slowly the repairs were completed and the city restored some of what was lost in the maintenance process. Over those arduous months, Janet and Wally had little control over the garden, creating stress and despair. Bob, Janet, and Wally were all forced to adapt to changes in the garden beyond their control; renegotiating their place and identity in the garden, disempowering and de-centering human garden inhabitants (Bhatti and Church 2001, Robbins 2007, Groening and Schneider 1999, Kiesling and Manning 2010). However, changes in physical conditions such as sun exposure created new opportunities establishment of other non-humans, such as the creation of a butterfly garden (Figure 12). This change in garden inhabitants also influence garden practice and relations within the garden as a whole, disrupting and reweaving portions of the garden's relational web.

Garden practice not only transforms the material landscape of the garden, but also the internal landscape of the gardener's emotional wellbeing and identity (Gross and Lane 2007). Working in the garden is an escape from the stress of everyday life, it transports the gardener, as Inger suggests, "into another world" where problems of the day fade away. Gardeners seek out these experiences in gardens, and these rewarding transformations of internal and external landscapes is most often achieved through observing and immersing oneself in the garden.

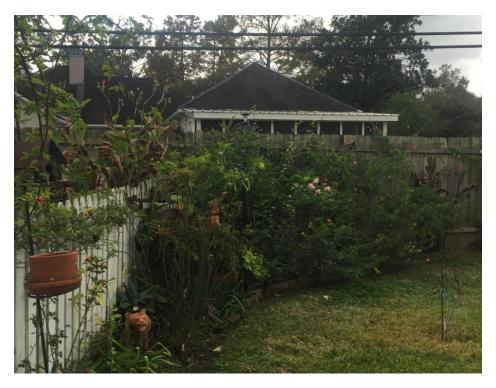


Figure 12 Janet and Wally's butterfly garden (Author's photo, 11/29/16)

3.3 Observing and Immersing

Observation and immersion are crucial aspects of engaging both spatial and temporally in the

garden. Gardeners observe plant performance, monitor visitors such as pollinators, birds, or pests.

They also take note of which garden inhabitants are successful and those that need additional labor or

care. These observations also provide great reward for gardeners, engaging them in the reciprocity of

nature-human relationships described in Chapter Two (Gross and Lane 2007). Seeing and engaging with

non-humans of the garden is a delight for many human garden inhabitants:

Now that we have sun in the back, we've put in a butterfly garden. We've really enjoyed the butterflies. We made a little terrarium and watch them go through their life cycle... We are still out there counting caterpillars. (Janet 11/29/16)

I enjoy studying nature, observing what's out there. I sit outside, sometimes for a couple hours, just watching the butterflies go from flower to flower. (Ken 10/5/16)

I certainly had a plethora of Gulf fritillaries this summer... We just stood for a few minutes...six different butterflies! That's gratifying for me. (Mary 12/16/16)

I could sit here all day and watch...we have all sorts of birds and squirrels, we have rabbits and raccoons and opossums, and now we have foxes that live in the neighborhood, foxes particularly like this yard to play in.... hawks hunt here a lot because there is so much other wildlife and cover. I often see hawks and owls swoop down and grab stuff.... that's always kind of fun when you see a big owl flying across the yard, or a hawk come down. (Bob 1/9/17)

Extended time and observation in the garden often leads many gardeners to become immersed

in the garden itself. Gardener's often "lose time" in the garden, as they are brought into "another world'

as is also described in Hitchings' (2003) interviews with gardeners in London and Gross and Lane's

(2007) work in the United Kingdom. For many, this practice is a rewarding experience of

accomplishment and highly prized time for relaxation. Many gardeners use the garden to seek out

restorative experiences (Kaplan 1995) and connections with the natural world (Wilson 1984).

It's relaxing and meditative. It's a way of taking away all the stresses of work (Inger 1/21/17)

Gardening is kind of a relaxing hobby... I could sit out there sometimes, even when I was working... I could just sit there and do like yoga and 'hum out' and just chill. (Wally 11/29/16)

It's stress relief... You come home and water that plant is going to grow, and it's not going to complain. (Aaron 12/4/16)

This immersion also transcends time and dissolves many notions of human control. In this

immersive practice, gardeners become more integrated as a member of the garden community, leaning

more on their intuition for interaction with the more-than-human community rather than intention to

dominate (Ginn 2014).

I can get lost just working out in the yard, it's kind of a sanctuary. (Bob 1/9/17)

When I'm out here [the garden], I'm in a different world... It's not work, it's comforting. (Inger 1/21/17)

I garden because...you can meditate...it transforms you...when I'm out there, there's nothing else.... I'm in that world at that time. (Inger 1/21/17)

This immersion is a way a producing everyday knowledge through participation in a larger social and material context of the more-than-human. Ingold (2000 p. 99) describes this immersive practice of knowledge production and experience in the Ojibwa peoples:

they get to know the world....by moving around in their environment, whether in dreams or waking life, by watching, listening and feeling, actively seeking out the signs by which it is revealed. Experience, here, amounts to a kind of sensory participation, a coupling of the movement of one's own awareness to the movement of aspects of the world. And the kind of knowledge it yields is not propositional, in the form of hypothetical statements or 'beliefs' about the nature of reality, but personal – consisting of an intimate sensitivity to other ways of being, to the particular movements, habits and temperaments that reveal each for what it is.

This "sensory participation" achieved through observation and immersion lead to direct physical interaction with the space, whether it be weeding, trimming, watering, or fertilizing. Many participants take notes of when these interactions occur in addition to their observations of plant performance and animal visitation. These observations are recorded in journals, photography, or spreadsheets. Written records provide gardeners insights as to what plants and practices have been successful, informing the next year's plant selection and practice. These records also help gardeners remember what plants are in the garden. Inger, Bob, Janet and Wally, Ruth and Ken have garden journals or other means of tracking garden activities. Ken's observation and record keeping are quite and involved practice, and we spent over an hour walking through his process. Ken documents flowering times, pollinator arrival and plant use, seed propagation and the development of the caterpillars he raises by hand. Every day he photographs and records the visitors of his garden and enters them into spreadsheets with substantial amounts of other data (Figure 13). This detailed process enables Ken to employ the most effective practices and plants to achieve his goal increasing the butterfly diversity in his yard. In just three years the number of butterfly species in his yard has increased from thirteen species at year end to sixty. He

now shares his techniques for gardening and butterfly husbandry through social media and public lectures.

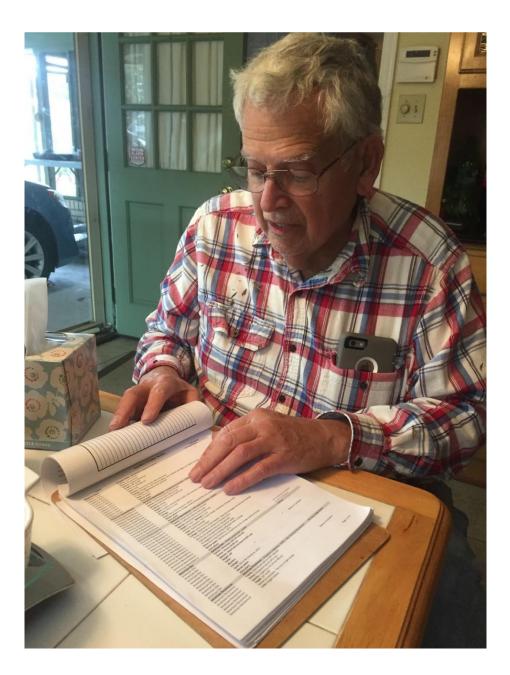


Figure 13 Ken explaining his record keeping methods (Author's photo, 12/30/16)

These observations also help gardeners recognize the seasonality of the garden and its transient inhabitants. Garden practice is also influenced by this seasonality. For Inger, this means letting her plants freeze so that they "come back beautifully" each year. Weeding is a part of "spring rituals" for

Bob. For vegetable gardeners like Janet and Wally, it means sowing seeds for sugar snap peas in winter and butter beans in the summer; and building arbors to support the growing plants. Gardeners create and "hold space" for these transient garden inhabitants. Holding space is a term of current vernacular intended to consider those who are absent without judgement or to give others space or provision to complete a process. Gardeners hold physical space for non-humans in the garden by creating beds and structures for them to utilize, or by removing competitors. However, they also "hold space" through intentionality, planning, and expanding consideration and compassion to the more-than-human community. Ken's garden practice centers around this concept, as his plantings consider the potentials for who might be present in the garden throughout the year. Plants in Ken's garden produce nectar and forage year round, a feat accomplished through extensive research, observation, and record keeping. Though I visited him in the dead of Louisiana winter, Gulf Fritillaries still munched on remnants passion vine (*Passiflora sp.*) and a handful of monarch chrysalis hung from dental floss in enclosures (Figure 14). Ken's record keeping allows him to "predict" what butterflies will be present in the garden at specific times and on what flowers, attuning him to the rhythms of more-than-human lifeways and immersing him in the garden community.

As gardens expand, many gardeners forget the identities of specific plants in the yard. These plants are usually older residents that were a part of the original landscaping, or that have been overshadowed by the gardener's interest and involvement with other non-humans in the garden. Knowing the plants in the garden seems to be important to study participants. During garden walkthroughs I asked participants to identify the dominant plants, those plants they could not name were source of frustration for most. They assured me that they would remember, or that they could refer to their records and to locate the particulars of a given plant. Forgetting a plant's name however did not exclude it from practices of care or exploitation. Unidentified or nameless plants and animals received both intimate care and disdain from gardeners. In other words, knowing a non-human by name is not

necessary for a gardener to engage with it. However, some form of performance is still expected from the non-human to receive continued care.



Figure 14 A Gulf Fritillary caterpillar enjoys passionflower leaves in Ken's garden (Author's photo, 12/30/16)

3.4 Talking and Touching

Other garden studies have compared plants to a companion species (HItchings 2003). Much like

our conversations with pets (Haraway 2003), many gardeners talk to or touch their plants,

communicating their affection, questioning wellbeing, and cursing them in frustration. Talk and touch

are practices used to care for plants in the garden. Both Inger and Mary directly engage garden

inhabitants though verbal and physical affection.

I'm always talking to them [the plants] that's just the way gardeners are. These are living entities that you relate too.... they haven't talked back to me yet, but they definitely respond by how they react, how they grow, how they don't grow when I think they should. It's a back and forth thing. (Mary 12/16/16)

I talk to them.... I tell them 'How are you? You look so beautiful! You're doing such a good job'...[they respond] by growing. (Inger 1/21/17)

I have three little plants at work, ivories, and everyone comes in and says 'Your ivories are so pretty, how do you get them to do like that?'....and I said 'I talk to them and water them (the plants)'. They say 'I talk to my plants too!' (Inger 1/21/17)

Mary checks on each of her plants daily. She praises their performance, inquires to their wellbeing, and fusses over their decline. Her husband, now passed away, would say "people might think you're crazy." But she dismissed this point of contention, responding that she is happy this way. "It's just the way gardeners are," she tells me, and proceeds to share stories of other Baton Rouge gardeners that also talk to plants. However, as discussed in Chapter Two, all non-humans do not receive the same extension of care, and in the practice of plant talk, beautiful is better than boring. While Inger talks to her flowers, she does not talk to the boxwood hedges which function as sculptable design elements rather than members of the garden community. "That's not very nice is it?" she admits. Flowers are more relatable to Inger, forming deeper relations of care by responding to her through the performance of flowering or other notable physical change. These acts of care are also linked to relationships with her family. As discussed in Section Two of this chapter, Inger engages in dual roles as a plantsperson and designer. Which roles or practices dominate are influenced by the particular relationship she had with the non-human she is engaging with. Inger recognizes the individuality and active personalities of the flowers, but in her engagement with boxwoods she is a designer, the boxwood becomes passive and malleable to her garden practice.

Gustav Theodor Fechner (1848) discussed benefits of human-plants conversations in his book *Nanna* (Soul-life of Plants). Books such as the New York Time's Best Seller *Secret Life of Plants* published in 1979 by Peter Tompkins and Christopher Bird discuss human-plant relations established or intensified through verbal and physical interaction such as the petting of leaves. Though this publication was popular with the general public, many of its claims were contested by the plant science community (Pollan 2013). However, similar practices of plant communication, including singing, chanting, and

meditation can be found in shamanic cultures around the world (Winkelman 1990). These practices seek to invoke the plant, animal, or divine beings for guidance, healing, or other ritual (Schultes and Raffauf 1992). Though comparatively little research has been done in the realms of human-plant communication, multiple experiments involving plants and sound have shown positive correlations between certain sound types and plant performance (Collins and Foreman 2001). Inger and Mary's observations of "plant responses" reaffirms their practice of care. Mary's opinion is that all gardeners talk to their plants, and though it may be common, not all Baton Rouge study participants do so. While this practice of plant talk is not adopted by all gardeners, many must still engage physically in some way with the plants to observe performance, conduct maintenance, or harvest. Ken, Janet, and Wally extend these intimate relations of care to caterpillars, the larval offspring of his lepidopteran allies, by hand raising both the caterpillars and the host plants they depend on. These forms of physical engagement with plants and other non-humans are often motivated by a desire to protect someone, be it plant, animal, or human, from harm.

3.5 Protecting and Resisting

Once a plant, animal, or garden is established, gardeners may go to great lengths to protect it from the elements, pests, or human trespass. Gardeners often relate this protectiveness to the investment of time or money, or as an act of care support a non-human's survival. Harold relies on chemical pesticides to manage organisms he considers pests, and in doing so protects his monetary and time investments in the garden. However, he avoids using pesticides on the few edible plants in his yard in an effort to reduce chemicals in his family's food. Ruth uses strictly organic practices to rid the garden of pests. Aaron, and husband-wife team Wally and Janet, also employ similar practices in their vegetable gardens to reduce pollutants from industrial agricultural practices that they feel threaten both personal and environmental health. Though this practice, gardeners are also resisting components of the status

quo of industrial agriculture and reaffirm their identities as ecologically minded individuals (Kiesling and

Manning 2010).

I know what's on and what's in my fruits and vegetables... you don't have to worry about any deadly chemicals in your backyard. (Aaron 12/4/16)

I wanted to be able to stop using them [chemicals] in flower beds where I put food. (Harold 1/8/17)

Last summer the beets were getting ravaged by worms...the only really chemical thing [I use] is the diatomaceous earth...There's organic remedies, soap and oil spray. With tomatoes radical pruning really helps a lot, urges them to get done before it gets too hot and the bugs hit. (Ruth 12/2/16)

Through these practices, gardeners protect a more fluid and seemingly intangible non-human in

the garden: the "Environment." Ruth's use of organic gardening practices and selection of native and

low water grasses in her front lawn reflect her commitment to protect the environment through more

sustainable garden practices.

There are so many factors involved. So many factors you can't control... so you are humbled by it... it's very intimate with nature. Nature that's in our hands to protect. (Ruth 12/2/16)

I think it's helpful to the environment...I think it's a contribution because people are causing the problems that we are having...This [native plant gardening] is one tiny step. Each of us can do one of these steps. (Mary 12/16/16)

In protecting the Environment, gardeners are also looking after their own wellbeing and that of other humans and non-humans for whom they feel affection or responsibility for. Many gardens and public spaces are undergoing an "ecological turn" recently popularized by entomologist Doug Tallamy's (2007) book *Bringing Nature Home* and co-author of *The Living Landscape* with Rick Darke (2014). Gardeners in Baton Rouge and throughout south Louisiana are engaging with these ideas. In 2016, both Tallamy and Darke made appearances at the LSU Hilltop Arboretum Symposium, returning in 2017 for the Winter Gardening Symposium hosted by the Louisiana Master Gardeners of Greater New Orleans. Tallamy was also featured in Catherine Zimmerman's native plant case study documentary *Hometown Habitats* (2016), which was screened in Baton Rouge as a part of the Center for Planning Excellence's Smart Growth Summit in 2016. Tallamy advocates for the reduction of lawns in urban and suburban places, encouraging instead the planting of native plants which provide the basis of food webs. However, Tallamy advises that not all native plants are created equal, advocating for the planting and propagation of those plants that appear to support the most biodiversity. This practice comes with a promise to protect habitat, insects, and the subsequent trophic levels that depend on them. Planting native plants is also a form of resistance to the thoughtlessness of urban development and habitat destruction, much like organic gardeners' resistance to industrial agricultural practices through the production of their own food.

There is something to be said for growing native plants... bees and the butterflies, their population is diminishing... so if we can give them food and support... that's always good. (Aaron 12/4/16)

It's so basic... I've never thought of it and I suspect other people hadn't. If you have natives you're going to be supporting all kinds of natural growth...microbes.... the birds...the wildlife... I'm also an environmentalist, so it's all kind of tied in. (Mary 12/16/16)

Tallamy's work encouraged Mary to invest in native plants. Other more local influences, like the Louisiana and Capital Area Native Plant Societies, and Maypop Hill Nursery, have fostered Baton Rouge gardeners interest in native plants by providing educational resources and a variety of native plants for purchase. Despite this ecological turn in local interest, no participant was a purist when it came to native/indigenous plants. Both native and non-native plants, including Lantana, an invasive species listed in the Louisiana Department of Wildlife and Fisheries' Wildlife Action Plan were planted in gardens as popular nectar plants. Similar relationships formed with this particular plant, lantana, are also observed everyday garden practices in suburban home in Australia (Head and Muir 2006). Violent practices, such as Ken's determined removal of low performing plants may be beyond the norm for most Baton Rouge

gardeners, but others still engage in the process of weeding and thinning. However, greater numbers of gardeners seem to be displacing current non-human garden inhabitants for those that invite/produce/support additional community members. Such activities perpetuate "separationist" views in human-nature dualism (Head and Muir 2006).

3.6 (Re)production

It appears that all garden practice inevitably leads to (re)production facilitated through planting and selecting, improvising and transforming, observing and immersing, talking and touching, protecting and resisting. These practices are achieved through labor and relations intended to encourage the material reproduction of plants, fruits, flowers, pollinators, and other wildlife. Gardeners may attempt to reproduce a physical space of memories of spaces to resolve feelings of displacement (Head 2000, Brook 2003, Ginn 2007). However, gardens also contribute to the social reproduction of self (Gross and Lane 2007), family, and social relations (Clarke 2001) as social ties to other humans become embedded within the garden itself. As discussed in Chapter Two, many study participants were older, and felt their identity and garden was threatened by future declines in physical ability (Ginn 2014, Gross and Lane 2007). Gardening identity is produced and reproduced through many different relations and practice in the garden, and gardeners may hire students to help reproduce the labor and knowledge needed to maintain the garden when it is beyond their own abilities. This reproduction of knowledge and practice is also undertaken by organizations and institutions, such as the LSU AgCenter's Master Garden Program, whose mission is to expand the horticultural education and research efforts of the LSU AgCenter.

Reproduction practices in the garden may be hindered by lack of ownership. Aaron is the youngest participant in this study, and the only participant who lives in rental property. Aaron spoke about the concerns of mobility and relationship with the landlord, but continues to invest time and money into the development of their private garden. Aaron has adapted their gardening practices over

the years to accommodate a more mobile lifestyle, maintaining many plants in pots, including a producing lemon tree and a variety of herbs. Death or absence in the garden may also impact the social and material reproductions of garden communities. Collectively, the productions and reproductions are reflective of the perpetual becoming of garden spaces and communities in which reflect the multidimensional more-than-human aspects of hybrid geographies.

Chapter 4: Hybridity

Chapter Four seeks to answer the third question posed by this project: How do relationships and practices create hybrid garden spaces? To create, or perhaps more in step with Whatmore, to recognize hybridity, is to expand more ethical communities to acknowledge more-than-human subjects not just as social actors, but as inter-corporeal entities engaging in social and material connections (Whatmore 2002). This analysis also draws heavily on that of Donna Haraway's (2016a, 2016b) *Staying with the Trouble* concepts which either by happy accident or subconscious influence, my metaphors parallel. Haraway's tentacular thinking and webby analogies draw out similar ideas articulated in Whatmore's 2002 *Hybrid Geographies*, and as such I employ them as complementary tools for interweaving relation, practice, and the grip of human-nature dualism on the urban vernacular gardens in Baton Rouge, Louisiana.

Chapter Two traced garden relations, identifying numerous entry points for examining both dwelling and hybridity in urban gardens. I identified seven relational strands that are applicable both to gardens and to components of many everyday practices, including family and friends, fear and loss, community, labor, care and discrimination, addiction, and reward and reciprocity. These relations influence garden practices as described in Chapter Three, manifesting as planting and selecting, improvising and transforming, observing and immersing, talking and touching, resisting and protecting, and reproduction. These practices and relations contribute to what Head and Muir (2006) consider "resiliency and rupture" of dualisms in the hybrid private gardens.

Whatmore's hybridity reminds us that we do not create hybrids by bringing homes, nonhumans, and gardeners together, but that through our everyday existence we are hybrid, perpetually proliferating hybridity through dwelling in the more-than-human world. This hybridity blurs boundaries and dissolves many problematic human-nature dualisms by resisting "one plus one" logic and embracing webs of multiple agency (Head and Muir 2006). I will trace these potentialities through literal and figurative accounts of control, kinship, and compost in Baton Rouge's urban private gardens. I hope

these insights not only diversify literature on gardens, plants, and more-than-human worlds, but further illuminates the richness and implications of everyday engagement and embeddedness within hybrid communities on multiple scales.

4.1 Control

Gardeners' attempts to control the garden are enacted through a number of relations and practices, many of which are contradictory expressions of the gardeners' values. Garden practice is motivated by desires for beauty, personal expression, and connections to both human and non-human garden inhabitants. However, these same motivations can create contentious relations and discriminatory practices that illustrate the complexities of the garden community, including implicit and explicit considerations for more-than-human inhabitants. Selecting plants and planting in the garden is one way in which gardeners attempt to exert control over the garden community, centering themselves as a dominating force. This view is well articulated by Pollan (2000 p. xiii), stating "[Gardeners] tend to think such choices are our own sovereign prerogative: in the space of this garden, I tell myself, I alone determine which species will thrive and which will disappear." These attitudes are also reflected in Baton Rouge gardeners who grapple with their roles as caretakers and community members in the vernacular garden.

If we trace these relations and practices starting with the gardener, notions of human separateness and control, and thus that of human-nature dualism, are perpetuated in the gardener's performance as a garden designer (Hitchings 2003). This performance of labor by the gardener is intended to enroll the labor of plants and other non-human garden inhabitants. To identify non-human labor, gardeners critically observe the performances of non-human inhabitants and deduce the amount and type of labor or care needed to manifest their intent. However, external forces such as catastrophic storm events and internal forces of rebellious non-humans interact and disrupt a gardener's well laid plans. Gardeners must adapt and improvise to achieve some semblance of control. Though these unexpected interferences challenge and often frustrate the gardener, many find this creative,

improvisational process of great personal satisfaction and enjoyment. Many gardeners are unable to identify what drew them to gardening, but the creative and restorative qualities of gardens and gardening motivates their continued engagement in the garden community. These engagements provide reward through intrinsic feelings of accomplishment and the "reciprocity of nature-human relationships" which reaffirm the gardener's practice (Gross and Lane 2007).

Though seemingly harmonious, this engagement with the garden community becomes one of contention, control, and domination of nature. Those claiming to co-create with "Nature," like Harold, are selective in their definition of what nature encompasses, presuming that Nature is the plants which inhabit the garden. The insects that he confronts are not of nature, but of "other" that is pest. The presence and life this pest is not only unwelcomed, but sought to be eradicated. Gardeners like Bob and Ken give preference to native plants or those with observable ecosystem services for wildlife. Parallel to that of Head and Muir's (2006) research in Australia, these well-intentioned gardeners provide additional habitat but also perpetuate human separation from nature and dualisms of native/non-native. This discrimination of certain non-humans in the garden exacerbates both the unequal power relations between human and non-human inhabitants, and positions non-human against non-human for the sake of human desires. However, these relations in practice are motivated by fears which threaten the garden's identity of autonomy in the garden and the interests of that which they desire to protect. What they are protecting may include investments, aesthetics, and particular non-human garden inhabitants to which they attach value.

A gardener's agency or control in the garden may also be compromised by loss of mobility, time, or other means of engaging in the garden community. Many gardeners confront fears of losing their gardener identity as they age or the loss of the garden community itself. To compensate, they may rely on friends, family and other members of the community to assist in garden labor. Gardeners like Harold and Bob seek out students in need of work, others like Aaron and Wally share methods of food

production. These practices reproduce the garden communities and that of the gardener's agency in labor (i.e. the social reproduction of gardeners). These practices also facilitate the material/biological reproduction of more-than-human garden inhabitants and the ways they engage in the garden.

While some gardeners feel their control undermined by the intrusion of uninvited non-humans such as weeds, pests, and disease; other gardeners directly engage and nurture more-than-human community members. Non-human animal inhabitants are particularly adept at enrolling the labor and affections of the gardener. Many gardeners give preference to non-human animals, allowing the preferences of butterflies and wildlife to determine the vegetative population of the garden community. However, plants are not without their charms, encouraging gardeners to act as "human bumblebees," spreading their genetic material and offspring into the wider circles of the more-than-human community (Pollan 2001). A plant's service to animal non-humans can be of great importance in the garden community. Nearly all gardeners in this study select butterfly plants and other vegetation to attract/support wildlife (Ken, Bob, Inger, Mary, Aaron, Janet and Wally). This enrollment of human labor leads to intimate practices begin to blur the boundaries of human/non-human worlds. One of these practices is talk and touch, in which gardeners engage either verbally or physically (or both) with nonhuman garden inhabitants. Ken, Janet, and Wally raise butterflies by hand in enclosures, providing necessary forage and protection from predators so that they might reach adulthood. These practices provide services and infrastructure we might equate to free room and board, child care, and medical facilities. This also manifests as "plant talk," in which gardeners directly engage with plants through conversation. Mary and Inger both talk to their plants, and while they do not respond verbally, they respond "by looking beautiful" or growing. Physical engagements of care, such as raising butterflies or seedlings also comprise the intimate relations of more-than-human garden communities. Gardeners also "hold space" for non-human inhabitants through intention and planning. This consideration of nonhumans shifts gardeners towards the extralinguistic engagements of inter-corporeal hybridity

necessitated by Whatmore's hybrid geographies. Here, gardeners take on roles as plantspeople (Hitchings 2003), or in the case of the greater more-than-human community, naturepeople.

Gardeners may take on either, or both of these roles within the garden depending on which more-than-human inhabitant they are engaging. Many gardeners' entry into more intimate human/nonhuman relations are through existing relationships with other people. Family and friends, near and far, living or passed, many be embedded in particular plants or particular spaces of the garden. These human to human relationships can serve to intensify human relationships with plants or other nonhuman garden inhabitants, further encouraging intimate interactions of reward and reciprocity. However, these human to human mediations perpetuate Whatmore's (2002) critique of "who gets to be human," and undermines possibilities for materialization of a more-than-human ethical community. For example, Inger has the deepest relationships with flowering plants that were gifts from family and friends. These plants embody the love of other humans, taking on more anthropomorphized characteristics and receiving more care. Boxwoods on the other hand lack these human to human relations, and are used solely for their functional roles in the landscape. Boxwoods are shaped and controlled by Inger's aesthetic manifestations, whereas flowers are coaxed, encouraged, and respected.

Gardeners awareness, relation and practice surrounding plants and animals are generally those of exploitation. They are most often nurtured for the labor they provide, fulfilling a role of domesticated organisms. Outside of these relationships mediated by human to human interaction or utilitarian use, many gardens professed an intuitive and untraceable connection to the more-than-human world of plant, animals, and non-human others. Gross and Lane (2007) propose that these connections may be attributed to Attention Restoration Theory (Kaplan 1995) or biophilia (Wilson 1984). These ties to nonhumans are that of affinity, defined by Haraway (1987). as relations by choice and not by blood. Affinity may also be defined as symbolic ties of kinship that begin to blur the boundaries and dissolve aspects of human-nature dualisms (Haraway 2016a, 2016b).

4.2 Kinship

Kinship with the more-than-human world is one way in which hybridity may be recognized. Kin can take form as biological or blood relation, or symbolically through affinity (Haraway 1987). Kinship of blood or marriage ties the garden are evident through family centered events like wedding, reunions, and as a place for childhood experiences and upbringing (Kimber 2004). However, gardens are also sites of social reproduction and the memories of friends and family embedded in the garden through various plants or animals (Bhatti and Church 2001). Symbolic kinship (or kinship of affinity) also materializes between human and the more-than-human community. For gardeners like Inger, plants embody the love of deceased or living family members. Flowers give love to her and faithfully return, providing a connection for kinship relations to grow between plant and person. Similarly, Bob's stories of individual plants and people, and connections with the garden assemblage itself as family history, create similar ties of kinship. Loss of the garden is emblematic of loss of a loved one, a memory, or identity as a gardener.

Non-human animals can also become kin in the garden, where language of kinship, such as "families" of butterflies and "children" are used by gardeners like Mary, Janet, and Wally. Raising butterflies, included within the practice of talk and touch, provides for the needs of plants and non-human animal others as if they were human kin (Hitchings 2003). This "making of kin" and disruption of human-centered concepts of kinship are central to both the argument of Haraway's (2016b) *Staying with the Trouble* and Whatmore's (2002) *Hybrid Geographies:*

by releasing the spatial imaginaries of ethical community from both the geo-metrics of universalism and the confines of propinquity and genealogy, they disturb the territorialization of self, kinship, neighbour-hood and nation and invite other 'languages of attachment.' (Whatmore 2002 p. 167)

We need to make kin symchthonically, sympoetically. Who and whatever we are, we need to make-with — become-with, compose-with — the earth-bound. (Haraway 2016b p.102)

Disrupting these boundaries open doors to alternatives for more-than-human ethical communities. Inhabitants of these communities may become known as the "earthbound" (Latour 2013) who actively engage in the extralinguistic world. One example of this engagement occurs when gardeners hold space for non-humans and humans who are not present in the garden, inviting and anticipating the needs and growth of the garden community. This making of kin is rewarded by reciprocity, sanctuary, or attunement with the more-than-human community that connect the gardener with long lost relatives, as Haraway (2015 p. 162) suggests:

I think that the stretch and recomposition of kin are allowed by the fact that all earthlings are kin in the deepest sense, and it is past time to practice better care of kinds-assemblages (not species one at a time). Kin is an assembling sort of word. All critters share a common "flesh," laterally, semiotically, and genealogically. Ancestors turn out to be very interesting strangers; kin are unfamiliar (outside what we thought was family or gens), uncanny, haunting, active.

For some gardeners, these acts are compulsive, or described as "addictions", and these intimate connections immerse human garden inhabitants within the relational webs of the more-than-human garden community. This immersion is accomplished through observation and engagement in transformative practices, talk, touch, and reproduction where non-human inhabitants become "living entities you can relate to" rather than dominate. The immersive qualities of dwelling in the garden begin to breakdown the perceived divide between the world of humans and that of nature. Time is measured in seasons, and becomes less about where one should be than who should be present. Gardeners like Ken describe that they can "predict" what butterfly will be in the garden at certain times, and influence garden composition so food, shelter, or beauty persists in the garden. Dwelling and kinship in the garden is entering a world of seasonality and change, of transient allies and persistent foes, which breakdown and reassemble themselves over time. One way to describe the creation and dynamisms of these ties and practices is through compost.

4.3 Compost

Composting, the recycling of organic waste, is a practice employed by many Baton Rouge gardeners. For gardeners like Ruth, Aaron, Bob, Janet, and Wally; composting is a means of recycling and reducing waste, as well as creating rich substrate to fertilize the garden. In Bob's yard, compost has a life of its own. Two huge stalls of compost (larger than his pick-up truck) are found in the corner of the yard. These piles require meticulous care, measurement, and nourishment which Bob happily supplies. This compost pile is made of, and returns to the place of dwelling: Bob's home and garden. Leaves from the oaks, maples and gum trees provide mix in together with the tender bodies of spring weeds pulled up from the garden, food scraps are colonized by bacteria, fungal mycelium, and detritivores. Overtime it becomes the rich humus that feeds the many plants and animals inhabiting the yard. To compost, one must celebrate life and death; recognize their connection and perpetual makings of hybridity, of bodies in process between whole and dissolved, compound and elemental.

We may employ this metaphorically, as Haraway suggests, to think through mechanisms which breach and dissolve boundaries between more-than-human subjects. For Haraway (2016a, 2016b), compost is the reality of post-humanism. Composting is a process of decomposition and transformation; the dissolution of boundaries between one object/subject and the next, to create fertile and diverse soil. A process that does not require linguistic engagement but immersion in the heap of organic and inorganic bodies all becoming hot steaming potentiality. Composting is a slow and selective process. As things become porous, certain organisms may slip through the divide. They may be gradual at first, making slow progress, but as more tender flesh is exposed more opportunity arises, more connections are made, and more creatures colonize.

Human relations with non-humans in garden arise in a manner not so different from composting. Many Baton Rouge gardeners find connections with the non-human garden community come "naturally," or perhaps they have connections to specific plants. For those that lack these innate recognitions, memories of family members create vulnerability or fissions for which non-human

relations crawl through. Through those cracks other relations with the more-than-human world form which may change garden practice and the process of dwelling. To build these relations within the more-than-human world is just the beginning of decomposing dualisms which separate earthbound kin. As such, gardens are a place of forgetting who we are and where we think we came from, remembering our kinship with natural world, and re-learning how to engage ethically with the more-than-human community.

Conclusions

Hybrid geographies and the allied work of Haraway and Latour are productive tools for examining human-environment relations in Baton Rouge gardens. Hybridity and co-creation in these spaces is not "humans and non-humans working together" in an utopic and harmonious world as Hitchings (2003) implies, but more contentious and dynamic as asserted by Power (2005) and Cloke and Jones (2001). Tracing relations and practice within the garden brings awareness to the more-thanhuman community and identifies contentious phenomena of dwelling in the garden. Dwelling is a means by which hybridity may be recognized and made visible/tangible, though extensive time and engagement in the garden may be the most effective means of immersing oneself in the garden community. These communities may still be navigated as a site of dwelling for garden inhabitants through frameworks of kinship and compost.

The conclusions of this research align with the findings of Head and Muir (2006), illustrating that everyday relations and practice in gardens both destabilize human-nature dualisms and perpetuate them. The gardener's own recognition of dualism and hybridity exists along a temporal and spatial spectrum which is place-specific, yet these insights on human-environment relations are resonant with work in Australia, London, Somerset, and beyond. Unlike Actor Network Theory methodologies for garden research, hybrid geographies emphasis on dwelling allow more genuine, dynamic representations of what everyday life is like in Baton Rouge's urban gardens.

Semi-structured, oral history framed interviews provided rich insights on for individual relations with the environment. This is also illustrated in the work of Hitchings (2003), Power (2005), and Head and Muir (2006). Had I utilized surveys, which was a methodological aspect of earlier formations of this research, the information I collected would be more sterile and static than the richness and dynamism provided in the interviews. I gained insights not only on what relations and practice are present in the urban vernacular garden, but how these considerations come to be and change over time. Garden walk-

throughs were critical in uncovering many stories of practice and dwelling as specific plants and spaces triggered memories. Due to challenges of carrying the recorder and simultaneously taking notes during walkthroughs, I was unable to record some gardeners' stories. Instead I recorded these stories in field notes and sketches of the garden, along with a list of garden plants. Future studies will find greater intimacy and depth if more details of these garden stories could be recorded.

The intimacies of the urban private garden are a practicable research site for any of those delving into dualisms and the more-than-human world. However, research practitioners must consider temporal engagements within the garden. A gardener's immersion in the garden is a critical step in recognizing existing boundaries and beginning to dissolve them on an individual scale. Immersion is not an instantaneous process, and extended time in the garden may be required to achieve this more participatory state of engagement in the garden community. Gardens provide purpose and activities for retirees like Mary, Ken, Wally, Janet, Bob, and Ruth, who all spend substantial amounts of time in the garden. These gardeners framed interviews as positive affiliations with the garden as leisure, unburdened by time constraints and competing domestic activities like childcare. The pressures and expectations of employment and family obligations are sources of stress for those gardeners who are not retired. These circumstances compete for the gardener's time, limiting their time engagement with the garden community. Additionally, the stress from work and social activities can also be drawn into the garden through the gardener's internal reflections. While some gardeners actively use the garden space for reflection, others may find it counterproductive to the desired restorative aspects of garden. Kaplan's (1995 p. 178) work on Attention Restoration Theory states that "continuing to struggle with the old thoughts in a new setting is unlikely to be restorative," as involuntary attention provided by gardens cannot be activated in these situations. Additionally, the activities which take place in the garden must be conducive to involuntary attention. Prior to my interview with Harold, an unexpected freeze had descended upon Baton Rouge. To protect his investments, Harold directed substantial amounts of labor

into protecting as many plants as he could. Harold's mixed success in protecting the plants framed the interview with negative perceptions of the garden as damaged, messy, a chore, and a burden. I also expect this negative tone was also relation to Harold's anxieties (fears) about the fate of these investments as the garden recovered in the future. This lack of time, and concern for investments is also related to the ways in which he defines and engages with "Nature," using chemicals for quick results when protecting his plants from insects. Lack of leisure time, commodification of nature, and stressors from work are likely related to larger socio-economic conditions of western capitalism.

In this study I have not ventured into deeper realms of capitalist production and political ecology as does Paul Robbin's (2007) *Lawn people: How grasses, weeds, and chemicals make us who we are.* It is evident however, that the incongruences between identity, values, and society do manifest an "ecological anxiety" in which gardeners' practice is at times counter to their environmental awareness (Robbins 2007). Examples of this "ecological anxiety" in Baton Rouge gardens can also be illustrated by Harold's definition of "Nature", pesticide use, and treatment of food crops. Gardeners' relation to corporate agendas also influences relations and practice in the garden. Resistance or aversion to industrial agricultural practices, concern for personal health or environmental degradation caused by capitalist production, validation or condemnation for human domination or control of the environment, are all found within the fabric of relational webs and practice in Baton Rouge gardens.

Future research regarding these implications, especially if framed by the influence of institutionalized bodies of knowledge of university Agricultural Centers, local gardening groups, and horticultural trade, would provide an additional dimension for which to consider these dualisms within the urban vernacular garden of Baton Rouge. Both hybridity and dwelling in the garden could also be further explored and substantiated through seasonal interviews with study participants which would illustrate additional temporal considerations and relationships in the garden and consumptive practices.

As an environmental educator, environmentalist, naturalist, and a member of the more-thanhuman planetary community, my interests lie in determining how we form relationships with the world around us. Though my studies of plants, education, natural and cultural heritage, I have come to realize that insights to these relationships may be found in the workings of everyday life. As a Baton Rouge native, I too dwell in what many consider an ordinary place filled with ordinary people doing ordinary things. I've attempted to illustrate in this study that the ordinary, the contentious, and the home also has richness and value in exploring troubling questions of dualism that are difficult to apprehend. Creative thinking tools are of great need in our present socio-ecological crisis of what many call the Anthropocene. Just as gardeners' fear of loss exiles them from the garden, so do human-nature dualisms exile humans from the possibilities more-than-human ethical communities that Whatmore (2002) maps though *Hybrid Geographies*. It is my hope that this study not only contributes to discussions exploring human-nature dualism in academic arenas, but also engages gardeners and the general public in an accessible and relatable conversation about how we interact in the more-than-human world.

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Appendix A: Interview Questions

1. What is your name? Where are you from? Education?

2. Where plants, gardening, or gardens a part of your education?

3. What was your first job? What other jobs have you had?

4. Who are people in your life that garden? What did they grow? How did they influence you?

5.What was your yard like when you were growing up? Do you remember any memorable plants from your neighborhood, friends' houses, or public places?

6. How were gardens used or valued when you were growing up? Do you think people still feel the same way about them?

7. How did you begin/get into to gardening?

8. What motivates you to garden? What is the MOST important Reason you garden? Does anyone else work in the garden?

9. What kind of plants do you like to plant? Why? Do they change with the seasons? Or have special meanings?

10. How do you select plants for your yard/garden? What is the MOST important factor in selecting plants for your yard/garden?

11. What resources do you use to inform your gardening practices?

12. Where do your plants come from? How much do they cost?

13. What might your garden look like in the future? What is your ideal garden look like?

14. Why is your garden or gardening important to you? What does it do for you? What is your favorite part/aspect of your garden?

15. What do you do with products, skills, or experiences from gardening? Do you share them with others?

Appendix B: Interviewee Release Form



Garden Lives A project of the Department of Geography & Anthropology

Interviewee Release Form Photography, Audio & Transcripts

I, _______(Interviewee), do hereby give to the Garden Lives Project at LSU all right, title or interest in the audio-recorded interviews conducted by _______(Interviewer) on _______(Date). Should this interview also meet the criteria of the LSU T. Harry Williams Oral History Center, I, ________(Interviewee), allow this interview to be included in the Center's Collection. I understand that these interviews will be protected by copyright and deposited in the LSU Libraries for the use of future scholars as well as the general public. I also understand that the photography, audio and transcripts may be used in public presentations including but not limited to audio or video documentaries, Internet publications, slide-tape presentations, or exhibits. I understand that this gift does not preclude any use that I may place restrictions in the set recordings.

CHECK ONE:

Photography, audio & transcripts may be used **without restriction**Photography, audio & transcripts are **subject to the attached restrictions**.

Signature of Interviewee	Date		
Address	City	State & Zip	
Telephone Number	Email Address	Email Address	

Appendix C: Biographical Data Form



Garden Lives A project of the Department of Geography & Anthropology

Thank you for your interest in participating in this project. Please answer the following questions to help us to structure our questions appropriately and place your story in its proper context. Please use extra paper to complete your answers if needed. Once complete, please email this form to Lauren Hull, <u>lhull3@lsu.edu</u> or mail to 227 Howe-Russell Geoscience Complex, LSU Baton Rouge, LA 70803.

Your Name: (please print)	Date of Birth:	
Location of Birth:		
Current Address:		
Phone Number(s):	_Email:	
Education/Degrees/Certifications:		
Current Occupation:		
Brief Resume of Past Positions/Occupations:		
If LSU Alumni, Year of Graduation:		
Brief summary of military service (if any): (branch of service, rank, dates, locations, etc.)		

Appendix D: IRB Review Exemption

4/30/2017

IRE Application - Lauren A Hull

Institutional R Board

IRB Application

The 11/10/2016 1:32 PM

TeLauren A Hull < hull3@isu.edu>;

CoKent Mathewson <kentm@isuadu>;

HI,

The IR8 chair reviewed your application, Garden Lives: Exploring the Lives of Gardeners and Their Gardens, and determined IR8 approval for this specific application (IR8# E10231) is not needed. There is no manipulation of, nor intervention with, human subjects. Should you subsequently devise a project which does involve the use of human subjects, then IR8 review and approval will be needed. Please include in your necruiting statements or intro to your survey, the R8 looked at the project and determined it did not need a formal review. Elizabeth

LSU

Elizabeth Cudaratite IRB Coordinator Office of Research and Economic Development Louisians State University 130 David Boyd Hall, Baton Rouge, LA 70803 office 225-578-6692 | fax 225-578-5983 partol1@iau.edu | jau.edu | www.nesearch.iau.edu



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Appendix E: Recruitment Email

Dear Gardener,

My name is Lauren Hull and I am a graduate student at Louisiana State University researching people's lives and exploring their uses and connections with their gardens. We are focusing on private gardens in Baton Rouge, Louisiana. Gardens at your home, business or other residence will be considered. All types of gardens are needed for this study, big and small, potted or in the ground. Would you like to share your garden story with me? Follow this link to sign up: <u>https://goo.gl/forms/s7Ku2BnKmmQ4i2xI3</u>

More information can be found in the file attached to this email. If you have questions, feel free to contact me at Ihull3@lsu.edu with "Garden Study" in your subject.

Thank you,

Lauren Hull Ihull3@lsu.edu Graduate Student Dept. of Geography & Anthropology Louisiana State University

Appendix F: Recruitment Survey

Garden Lives Project

Thank you for your interest in the Garden Lives Project at LSU! My name is Lauren Hull and I am a graduate student at Louisiana State University researching people's life history and exploring their uses and connections with their gardens. The following questions will help identify if your garden qualifies for this study and provide me with contact information so I may follow up with you for an interview. Due to time limitations, completion of this survey does guarantee you or your garden will be included in research. Your personal information will not be shared with anyone other than the researchers (me), and will not be used for any other purposes unless permission is specifically granted. If you have questions, feel free to contact me at Ihull3@lsu.edu.

As a notice and for your re-assurance, the Institutional Review Board (for human subject research) at LSU has reviewed this study and determined that formal review and approval are not needed.

Name:

Phone number:

Email:

Address:

Preferred method of contact: O Phone O Email

When are the best times to reach you?

(Ex. Weekdays, Weekends, Mornings, Afternoons, Evenings, or particular times that work for you)

Is your garden within the city limits of Baton Rouge, Louisiana? O Yes O No O I don't know

Is your garden at your home, apartment, business or other residence? O Yes O No O I don't know

Do you, a family member, or friend create or maintain this garden? OYes O No Was your garden created or designed by a landscape professional? (Examples of landscape professionals include horticulturalist, landscape architect, yard service, etc.) O Yes

O I don't know

Would you be interested in participating in an interview about your life and your garden? O Yes

O No

Briefly describe your interests or motivations for gardening.

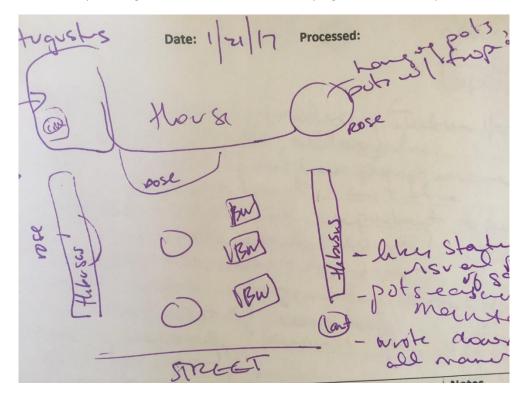
Briefly describe your current or past gardens. (Gardens can be of any type, in the ground, in pots, hydroponic, etc.)

Comments or Questions?

Appendix G: Garden Sketches



Example of a garden sketch: Janet and Wally's garden (Author's photo)



Example of a garden sketch: Inger's garden (Author's photo)

Lauren Hull is a Baton Rouge native who received her Bachelors of Science in Natural Resource Ecology and Management and a particular passion for plants from Louisiana State University in 2012. She is a grateful inhabitant of the more-than-human world who seeks to discover alternative ways of thinking about and engaging with Nature. Lauren has pursued these answers in her role as an environmental educator, teaching and developing education tools for K-12 students and educators in Louisiana and across the Gulf South. She values community engagement and collaboration; and works with local nature-centric organizations including the Capital Area and Louisiana Native Plant Societies, as well as the Louisiana Master Naturalist Association, for which she coordinates workshops and other educational events.

During her graduate pursuits in the Department of Geography and Anthropology, Lauren served as the Coordinator of the Cultural-Historical Collaborative (Fall 2016-Spring 2017); a professional peer group dedicated to the study and application of qualitative, cultural, and historical methods in geography, anthropology, and allied fields. Lauren is also involved in ongoing research projects in collaboration with other department faculty, students, and alumni. Following her anticipated confirmation of her M.S. in Geography in August 2017, Lauren intends to continue this work through non-profit and educational organizations, possibly pursuing a PhD or alternative certifications.

Vita