

AT THE INTERSECTION OF HEALTH, HEALING, AND JUSTICE: ANALYZING THE
AFRICAN BOTANICAL LEGACY IN BRAZIL

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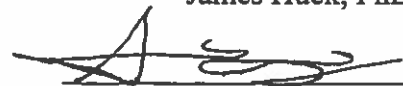
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TABLE OF CONTENTS

| | |
|---|------------|
| ACKNOWLEDGEMENTS | ii |
| CHAPTER 1: INTRODUCTION | 1 |
| CHAPTER 2: PUBLIC HEALTH RACE & HEALTH DISPARITIES: An Analysis of Race and Health Outcomes in Afro Descendant Communities | 27 |
| CHAPTER THREE: THE AFRICAN BOTANICAL LEGACY & CANDOMBLÉ | 51 |
| CHAPTER FOUR: ETHNOGRAPHY AND EXPLORATORY RESEARCH | 81 |
| CHAPTER FIVE: THEORY: Applying Yoruba-based Healing Philosophies to Examine Health and Social Inequalities in Brazil | 91 |
| CHAPTER 6: CONCLUSION | 102 |
| APPENDIX 1: INTERVIEW QUESTIONS (ENGLISH AND PORTUGUESE) | 107 |
| APPENDIX 2: HERBS AND PLANTS | 108 |
| BIBLIOGRAPHY | 110 |

CHAPTER 1: INTRODUCTION

Examining the different contexts and uses of traditional modalities in a modern world that heavily relies on pharmaceutical therapies, health services, and biomedical technologies speaks to many facets of society. The use of these practices suggests prominent social values of health, points to the strength of the connections between society and Nature, and perhaps the lack thereof, and calls attention to how people face health disparities. As it is known, many forms of traditional or local medicine systems apply a holistic view on human health (Leonti and Casu, 2013). This implies the healing process is not linear; it requires the recalibration of the mind, body, and spirit, all of which are innately connected to Nature and its forces. I evaluate how these values of wholeness in health translate and manifest in Afro descendant communities in Brazil as Black Brazilians have complex relationships to land, Nature, and Spirit. bell hooks' chapter "Touching the Earth" in *Sisters of the Yam* (1993) emphasizes the importance of self-healing and communal healing through human connection with Nature, a practice heavily rooted in ancestral knowledge that are evident in the complex realities for people of the African diaspora:

"Recalling the legacy of our ancestors who knew that the way we regard land and nature will determine the level of our self-regard, black people must reclaim a spiritual legacy where we connect our well-being to the well-being of the earth. This is a necessary dimension of healing" (hooks, 1993).

hooks emphasizes the importance of intimate relationships between Black people and relationships with land as a healing praxis. There are various dimensions of healing; in the holistic sense, the physical body is only one element that undergoes transformation as healing is a dynamic, multifaceted process that channels constant, ritualistic attention and action. The healing potential that hooks refers to is multidimensional and ultimately

rooted in agency; a contrasting narrative to that which chattel slavery perpetuated as an abasement of power, identity, and liberty. Accessing ancestral knowledge for African descendants of slaves in the Americas is a critical dimension of healing as it calls upon information systems that may have been lost due to divorces and separations between families, lands, and cultures. While working with these concepts of religiosity and spirituality surrounding nature in this project, I adapt Nature as a proper noun to recognize Nature as an entity, opposed to a generic place or thing. *Ancestral knowledge*, in this context, is an information system of diverse origins that connects an individual or individuals to parts of their cultural heritage. I would like to highlight how Afro-descendants in Brazil apply their ancestral knowledge of land and Nature, thereby revealing their perspectives on health, healing, and well-being as many healing traditions are sourced from Nature and land. This thesis explores the nuances of ethnobotanical relationships between African descents in Brazil and the plants of the African Botanical Legacy. I also offer a paradigm shift in the way that health and health systems are regarded by centering on health philosophies and contesting political definitions of health.

Cultural and historical realities shape health outcomes as well as perspectives on health and healing. Many holistic experiences and cultural practices of Afro-descendants, such as for people in Salvador, Bahia in Brazil, are tied to the African Botanical Legacy that lives on throughout the country. These continuities and parallel cultural heritages in countries in Latin America and the circum-Caribbean which have also maintained, restructured, and reclaimed traditional healing practices for centuries, involve plant technology and intimacy with land and Nature. Historian Judith Carney (2003) provides

an informative article on African traditional plant knowledge and outlines how plants were used in response to poverty and lack of access to healthcare in the nineteenth century, two prominent realities for Afro descendants today. Carney notes that impoverished Black majority populations relied upon “folk medical heritage” that they assumed from their enslaved, marron, and free Black ancestors after the abolition of plantation slavery in the early nineteenth century. She records that people of the Caribbean who live in rural areas rely on the *materia medica* of roots, leaves, bark, fruits, and gum resins of diverse plants for healing. In a country, such as Cuba, where alternative medical systems are valued in the contemporary society, green medicine (*medicina verde*) draws upon medical traditions that enslaved Africans developed during the era of plantation slavery (Carney, 2003). The spiritual legacy that promotes healing based on these components is also alive within the African-based religious traditions in Brazil, specifically referencing to the traditions of Candomblé, as well as in the daily lives of others, including Afro-Brazilian women who use this technology as a form of cultural memory, ancestral veneration, justice, and resistance.

Background

Many descendants of enslaved Africans in the Americas have a rich and an extensive history of healing practices that have been retained, altered, and, for some, lost to time. These practices involve ancestral veneration, communal gatherings filled with music and dancing, and, most prominently, they involve intimate relationships with Nature as rituals may require specific plant material or body of water for example. Afro descendants across the diaspora in Haiti, Cuba, and the United States South, have maintained, restructured, and reclaimed traditional healing practices for centuries, or

some type of “folk” medicine using medicinal plants, such as that of Lucumí in Cuba, Haitian Vodou, and Brazilian Candomblé (Volpato, 2009; Mitchem, 2007). The use of nature in food and spiritual-religious practices by Afro descendants in the Americas is evidence of the continuation of the African Botanical Legacy, a cultural heritage of intuition as it is a knowledge system that employs the use of African native plants by people of African descent for the various socio-cultural reasons. In other words, the African Botanical Legacy points to the various uses of *plant technology*—a concept that I would like to introduce to the field of ethnobotany—and highlights people with extensive knowledge of plants as important social actors who effect change. Plant technology characterizes the ingenuity and problem-solving potential that is achievable and accessible through plant alchemy through tea making, herbal baths, burning incenses, and other applications. This legacy of botanicals of roots, flower essences, herbs, and leaves is a direct extension of the African diaspora of people that have significant histories and narratives in Brazil and across the region. Some cultural studies scholars chose to analyze certain aspects of the African Diaspora by performance and expressions of popular culture as means to shed light on ideas of political consciousness, ethnic identity politics, and cultural production (Clarke and Thomas, 2009). Analyzing how people of the African diaspora utilize plants sheds light onto cultural origins and historical experiences that may not be regarded otherwise.

Studies by ethnobotanists, anthropologists, and historians, such as Robert Voeks, John Rashford, and Judith Carney, evaluate the various presentations and uses of African biodiversity and plants that thrive in the Americas as well as the flora that traversed the Atlantic and reached African, European, Asian, and American soils. These studies

provide a theoretical foundation that evaluates the scientific and social values of the botanica within ethnic contexts from anthropological and historical purviews, however they do not expound upon how these relationships influence social constitutions. I would like to expand this groundwork and to critically reflect on the transatlantic movement of plants and the circumstances in which they migrated, thus divulging deeper into some of the narrative histories about the lives of Afro descendants and their ancestors. In this work, I employ an ethnobotanical approach to explore the interrelationships between Afro descendants in Brazil and their relationship to plants as way to evaluate medicinal plant use to develop discourse surrounding health perspectives for communities who do not fully embrace the political definition of health because their cultural beliefs deem the parameters inadequate. While also calling attention to the health disparities and deficits that exist for these reasons, it is my aim to underscore how cultural values influence health perspectives through evaluating the use of plants of the African Botanical Legacy by asking the following questions: how do people who face historical and social marginalization in the health sector deal with the effects of institutional violence? What elements influences ones' perceptions of health and wellbeing? My argument is centered on the following ideas: (1) how the cultural legacy of plant medicine speaks to issues of health justice, institutional violence, and the inadequacy of sole dependence on the biomedical health model as a method of health evaluation; and (2) how health is a cultural phenomenon shaped by experience and histories that are influenced by social constitutions, such as gender, ethnicity, race, and class.

The African Botanical Legacy in Brazil

In this work, I refer to the *African Botanical Legacy* as a living, breathing system of knowledge that manifests in the everyday, ceremonial, personal, and communal uses of plants for their therapeutic, spiritual, and medicinal properties. Here, the botanical legacy also functions as a conceptual device that helps to trace historic trail of experience that function in duality and influences the present realities of many African descendants. The African Botanical Legacy focuses on the transmission of cultural knowledge of African descendants and describes the heritage sites of knowledge, not as historical appendages but rather as legitimate sources and cultivators of information. Carney (2003) notes the diversity yet specificity of African ethnic groups—such as the Fulani, Yoruba, Dahomean, and Ashanti—who were repeatedly regarded by Europeans slavers as incredibly skillful with plants. Much like the concept of an African diaspora of people that are connected by geographic origins and cultural similarities, I adapt this idea of an African Botanical Legacy which suggests that Afro descendants have both maintained and reassigned meanings for various botanical elements that serve many needs and purposes. which is often recognizable, especially in *terreiros* and some public spaces, as it will be decorated with a white cloth, and often times the site of important rituals and sacrifices. For example, *Iroko* is a sacred plant and spirit which represents ancestry and time. *Iroko* is also known as African Teak (*Milicia excelsa*), however in Brazil this tree does not exist and can non subsist, so practitioners of Candomblé very wisely replaced and honored the spirit of *Iroko* with a tree called “gameleira” (*Ficus insipida*). Ascribing meaning to this species of tree to honor *Orisha Iroko* (Iroco) is just one of the many examples of resistance and resilience. The transmutation of species to suit the geographic, ecological, and symbolic needs of the people is an example of the ingenuity

and resourcefulness that is associated with the botanical legacy and the people who carry it out.

Healing traditions of West-Central Africa represent one of the world's most developed ethnomedical systems alongside those of China and India (Carney, 2003). The African Botanical Legacy was established by enslaved Africans and supplemented by slave traffickers who boarded plants that would be used for their voyages and later be grown in the New World. Plants of the African Botanical Legacy are used in traditional meals to make *acarajé* or *vatapá*; they are used to make instruments, the like the *berimbau*; and they are employed as medicinal healing for religious and nonreligious purposes. The transatlantic slave enterprise was not only a forced movement of enslaved people across the Atlantic, but it also unrooted people and their knowledge, traditions, and identities. To that effect, the botanical legacy highlights the continuation and reinvention processes that Africans and Afro descendants underwent as they were brought to Brazil from many regions in Africa, including what is now known as Mozambique, Nigeria, Angola, and Benin (Werneck, 2009; Pinto and Hardening, 2016).

In Brazil, particularly in the Northeastern region in the State of Bahia, there are many traceable elements, or cultural continuities, linked to the African provenance, such as food like okra, guinea fowl, and African oil palm, that are specific to the Yoruba ethnic group's culture. Other plants, like the kola nut and rosemary, have spiritual and religious connotations in African derived traditions in Brazil, like Candomblé, as they are used in spiritual divination sessions and herbal baths, respectively. Linking the ethnobotanical knowledge of medicinal-therapeutic properties with their cultural significances as well the scientific connotations (i.e. the scientific name, geographic

location, plant physiology) fortifies the understanding and the importance of plant medicine as an ancestral healing practice, especially in the way that the knowledge is used and transmitted, thus calling attention to the power of plants, cultural heritage, and ancestral knowledge. Conversely, scientific classifications created by biologists and ethnobotanist mainly categorize plants based on morphology, chemical composition, and attempt to classify them by local names. Considering the cultural significances of plants alongside the scientific methods that classify them offers a dichotomous approach to plant medicine. Utilizing both of these perspectives attempts to bridge the gap between the philosophical tenants of social and biomedical sciences by evaluating different methods of knowledge production and retention.

Therefore, I use this framework to focus on the voices and narratives of Afro descendants in Brazil, especially Black women who are politically underrepresented and historically marginalized yet embody an overwhelming sense of resilience and ancestral knowledge. Mãe Beata, elder ritual leader and activist from Rio de Janeiro, wisely stated,

“I believe that *Olorum* has determined that our most important function is when we embrace a cause. We can always plant a seed, no matter where we are. Politics must not be disconnected from our daily lives. When we talk about women's health or when we discuss the cost of living in the supermarket, we are doing politics. One woman's struggle helps another to grow ”(Mãe Beata de Yemanjá, 2000).

Recognizing that the issues that attempt to diminish Black women's agency is a part of the work that Mãe Beata de Iemanjá refers to. Scholars posit many ideas about the politics that concern Afro-Brazilian women and how Candomblé serves as a practice that serves Afro-Brazilian in “their negotiation of the racial, sexual, social, political, and economic hierarchies that structure the Brazilian world” (Sterling, 2010). To this effect, I attempt to use this frame of reference of agency and power through a wide lens that reflects the realities of Afro-Brazilian women.

Tracing the circulation of knowledge and the historic transmission of the African Botanical Legacy lends insight into the secrets of the past while weaving the fragmented ends of today's present. African descendants in Brazil are hosts to this vast knowledge as they have complex relationships to the land due to traumas of chattel slavery, longstanding interrelationships with Indigenous communities, and the effects of urbanization. The African Botanical Legacy lives on in various facets and aspects of life in Salvador, Bahia and other areas of Brazil, yet it is most perceptible in the use of sacred plants within the traditions of Candomblé.

Candomblé

Adherents of Candomblé, cultivate the essential connection between humans and Nature on multiple levels as Candomblé is a spiritual heritage passed on for generations that promotes ancestral medicine, health, and healing through tending to nature and natural forces, offerings of song and dance, ancestral veneration, and teaching principles of respect and community. Sacred leaves, or *ewe*, are very important to the physical and spiritual healing processes in Candomblé. Many plants also have a spiritual and cultural value, such as the bottle gourd, or *calabash*, which represents the Yoruba material and the spiritual worlds (Voeks 2013). Moreover, many of the plants that are used to carry out rituals and healing are both native and non-native to Brazil and African territories as approximately 25% of plants used in Candomblé traditions are known to originate in the Old World. For example, beach morning glory, also referred by its Yoruba name *aboro aibá*, is dedicated to the *orixá* Nanã, one of original divine feminine energies who represents rains, soil, and mud. This plant crossed the Atlantic using its natural floatation device and continued to be used in spiritual baths in West Africa and Bahia.

Candomblé is a religious tradition that creates intimate relationships with the sacred cosmology of music, dance, and other incorporations of the physical body (Mota and Trad, 2011). The theological and philosophical tools used in Candomblé provide an interesting framework to assess health, healing, and medicine in a holistic model. Many of the traditions can be traced back to their ethnic origins in Africa as demonstrated by various nations of Candomblé, including Angola, Ketu, Jeje, and Ijexá, each with their rules and rituals. Each uphold “...its own lexicon, chants, ceremonies, spiritual entities, and offerings. Each also sustains its own medicinal, spiritual, and magical crop plants and wild species” (Voeks 2018). Many of these continuities can be examined in the diverse religious matrix of Candomblé through the vernacular and scientific classification systems. For the purpose of this project, I will reference the Ketu (also referred to as *Nagô*) traditions since this nation follows many traditions of Yoruba philosophy and cosmology. I think that the Yoruba ethnic group receives much academic attention in Brazil due to its prevalence as well as its prominence in the diaspora, especially in Afro-Cuban culture, Lucumí. The seemingly common focus on *Nagô*-centered perspective as a cultural currency was fed by, first, the prevalence of Yoruba-speaking people in Bahia by the early nineteenth century. Secondly, the academic attention brought to this ethnic group by scholar, Raimundo Nina Rodrigues in which he argued that the Yoruba were more intellectual advanced because “they maintained a complex mythology of relations among the orixá” (Harding, 2000), therefore established a hierarchy of value among the African diaspora of cultures in Brazil.

Health, Healing, and Justice

Considering the tragedies and traumatic effects of chattel slavery for Afro descendants, I would like to highlight how these experiences have shaped Black health and how Black people view health. To this effect, I think there are many sensitive areas to consider and to consult when discussing matters of health and well-being, such as personal and social history, medical experiences, trauma and violence, and religious and spiritual perspectives. Colin Airhihenbuwa (2007) notes the importance of recognizing health as a cultural practice as environment, exchange, and belief heavily shape health outcomes and perspectives on health. As such, health should be evaluated as a cultural practice, one that is shaped by experience, history, environment, and by personal and collective decisions that change over time. I address the inadequacies of the Western biomedical model to address the holistic health needs in detail in Chapter Five as the healing practices reflect social relationships and concerns. Institutional differentiation, the process by which the various institutional spheres in society become separated from each other, encourages an exclusive focus on physical conditions and presentations of disease, thereby insufficiently deals with suffering and subjective adversarial experiences (Freund et al., 2003).

With this lens I aim to generate a discourse that reveals the different theoretical approaches to health promotion and the various socio-cultural realities that inform them. It is necessary to discuss the complexity of health, and in this work, I have found this concept to be one that subjectively assesses and considers the myriad of human conditions and realities—a perspective supported by from my research participants. The philosophical debate on what constitutes medicine and health lies at the basis of the methodological tactics that are employed to define them. Valuing health as cultural praxis

and cultural product offers a lens to evaluate the factors that influence health outcomes. How health or wellness is evaluated speaks to cultural values and priorities by those who are in a position of power. In other words, in a society that promotes busy work schedules and condemns rest while feeding illness with temporary treatments rather than focusing on disease elimination and curation is cultural health. I want to draw attention to what measures are taken when someone complains about a neck pain or insomnia—are pills the answer or an herbal remedy and rest? The responses to these questions can vary but the root of the questions point to an essential motif for this discussion: health and justice are interconnected as health is an assertion of one's autonomy and agency, while also a reflection of societal values and connection to Nature. bell hooks speaks to the power of the interrelationship with land (space), Nature (spirit), and healing for black people which sets the stage to discuss structural inequity, cultural legacy, and political definitions and identities that shape the existences of many who are politically disenfranchised and largely unrepresented. It is not my aim to redefine or rename the structures that create inequity, however I aim to examine them with a wide lens that is congruent to the views of those who experience inequity and inherit the impacts.

By focusing on alternative definitions and manifestations of health, I would like to credit some of the experiences and philosophies of health and healing that do not appear to gain much attention in the institutional realm of public health or cultural studies. In this quest, I center on the experiences of Afro descendants and their African ancestors in Brazil, and how their knowledge and experiences speak to ideas of justice and healing through the use of the ancestral medicine of plant technology. *Ancestral medicine* is a phrase that I would like to utilize to refer to the healing modalities that are

inherited by honoring either a direct or indirect lineage or ancestor. I use the concept of ancestral medicine to frame both the idea of continuity and discontinuity for Afro-descendants, people whose ancestral ties were physically, psychologically, and geographically severed, yet remain connected through reconnection and reinvention.

Public Health and Holistic Health

The Western biomedical model is heavily fixated on presentations of pathology and reliant on empirical data. Its treatment methods have largely informed views on health and well-being in the Western hemisphere. Operating chiefly on treatment rather than prevention, the biomedical model has influenced the relationship between disease and healing in ways that commodifies and impersonalizes healthcare. Given that Afro-descendants of Brazil statistically face health challenges on the basis of institutionalized violence, assessing health needs by applying the traditional Yoruba Model of Equilibrium challenges how health disparities are conceptualized. In communities that rely on their fundamental understanding of healing as a connection between the natural and supernatural, such as the various nations of Candomblé in Brazil—meaning not just the Yoruba/Nagô—the traditional biomedical model is not a sufficient model to follow alone. In belief systems that use non-Western scientific parameters to measure wellness, such as divination sessions or consultations, concrete observations alone are obsolete. For example, the physiological explanation behind a vision problem who probably could indicate a deficiency in a certain nutrient or to an obstruction in the structure of the tissue. A spiritual healer could use a divination system to pinpoint the spiritual issue that caused its physical manifestation and suggest and/or implement a remedy. On the other hand, some practitioners rely on a complementary use of biomedicine along with spiritual

healing. In some African-derived religions that exist in Brazil, such as Candomblé, health and healing are associated with the praxis of *axé* (*ase* in Yoruba), a sustaining life-force that exchanges between all entities. Therefore, *axé* is another essential element in understanding the philosophy of internal and external balance according to the Yoruba tradition. Many sacred plants of Candomblé, along with rituals, sacrifices, abstinences, and other practices are employed to cultivate *axé* thereby restoring a holistic balance to the individual, group, family, community, and society. Wellness and well-being, in this context, are not just concepts, rather they are doctrines.

Quoted from Mãe Beata de Iemanjá, “A cabeça é o jarro cheio de rosas maravilhosas e o corpo é a mesa que sustenta esse vaso. Se a mesa estiver com o pé quebrado o jarro vai cair e quebrar” which translates to “The head is the jug full of wonderful roses and the body is the table that supports this vessel. If the table has a broken foot, the pitcher will fall and break” (Silva, 2007). This beautiful expression embodies the essence of Yoruba healing philosophy of equilibrium, a doctrine based on holistic wellness. In Brazil, public health data indicates that Afro Brazilians face health challenges due to institutional violence, such as perceived racism and the lack of quality care from health care providers. Existing measures and initiatives that promote black health advocate for health equality versus equity in Brazil. The concept of health and social inequalities are complex, multidimensional, and requires a systematic approach in order to effectively comprehend how these structures influence health outcomes across various populations. Health should not be evaluated using a universal methodology for all due to variations in biological needs, access to health care, health advantages, and health behaviors. Relying on singular-level solutions to health care issues is problematic;

approaches to health should not be equal but rather, equitable. This requires an assessment of cultural practices, social norms, political interventions, economic policies, and other entities that influence how health is perceived and maintained. Defining the differences between health inequity and inequality sets a foundational basis to understanding how certain factors influence health outcomes within a given population or community. Health inequality refers to the inevitable differences in timing, frequency and survival within populations. Health inequities arise from economic and social inequalities that inhibit communities from achieving optimum health. Determining the difference between health inequities and inequalities can be evaluated by examining the differences in exposure and vulnerability to developing a health condition, timely diagnosis and treatment, and the impact of health conditions on other dimensions of human experience. From an interdisciplinary perspective, the residual impacts of slavery, colonialism, environmental injustice, and social corruption all contribute to the many of the aforementioned inequities and inequalities that Afro-Brazilian communities face.

In contrast to public health studies on black health in Brazil that centers on statistical, demographic data, Jose Marmo da Silva (2007) offers an alternative approach to measure health equity. Silva engages in a philosophy that focuses on justice, balance, and health called the Yoruba Model of Equilibrium (YME). The YME is a system operates on the basis of “holistic justice”, the manifestation of equity in all areas of life and existence. Holistic justice heavily relies on the equilibrium between the natural and spiritual world, or in other words, human to human, Nature to human, and human to spiritual entities that exist in Nature. Managing this equilibrium is a complex process that involves collective and individual efforts and exchanges. For example, tending to a

garden or swimming in a river are ways to connect to human physical experiences and power while acknowledging the power of nature and the powers of the spiritual forces connected to these natural elements. Silva (2007) presents a theoretical framework that centers Afro descendants in Brazil and the Yoruba model of equilibrium as a means of health justice through the work of Rede National de Religiões Afro-Brasileiras e Saude (RENAFRO), the National Network of Afro-Brazilian Religions and Health. RENAFRO utilizes Afro- Brazilian religious concepts and praxis, such as solidarity, indiscrimination, and inclusion into promoting health and wellness for Afro Brazilians in Brazil, a historically marginalized group in the context of public health. More specifically, I use the YME to highlight how Afro Brazilian women use their ancestral knowledge of the botanical legacy to restore the equilibrium of holistic justice for themselves and their communities as a part of a larger diasporic narrative and experience.

Afro-Brazilian Women at the Center

Many scholars point out social dominance dynamics in between social hierarchies, and they examine gender constructs to do so. Scholars paint Afro-Brazilian women as occupying a subaltern social position because of their relative power position to the social dominant entity and attempt to find other spaces and performance examples that suggest otherwise. According to social dominance theory, dominance is maintained through institutional discrimination in the allocation of “desirable resources”, including healthcare and financial services (Pratto and Stewart, 2011). Arguably so, Afro-Brazilian women experience and historically experienced marginalization from these sectors, thereby fall into this subaltern position by its definition. On the other hand, my approach to this question regarding the social positioning of Afro-Brazilian women is political and

holistic in nature. I argue that they do not invert these power structures, because the idea of power inversion or the idea that power is “given” or redistributed to the powerless negates the very power that people have by simply existing. Instead I attempt to draw attention to the idea that Afro-Brazilian women who work with plant technology of the African Botanical Legacy are “balancing the scales” with their connection to Nature and land. This is a holistic approach that is committed to well-being, wellness, and restoration that leads to a balance of power versus achieving a renegotiation of power. Attempting to elevate and generate an epistemological framework of equity, this thesis centers the work of black women who are entrepreneurs who utilize sacred plants of the African botanical legacy for their medicinal, therapeutic, and spiritual properties to heal physical and spiritual traumas. Where identity, power, and justice are highly contested in Brazil, especially for Black women, analyzing the interrelationships between nature and African descendants in Brazil and their ancestors highlights how the African Botanical Legacy created and influenced many cultural practices in the African diaspora in the Americas. This analysis sheds light on the various demonstrations of resistance to long standing hegemonic powers, thereby serving as a reminder of the legacies of slavery and enslaved Africans and their descendants.

The black body, both collectively and individually, was the instrument of capital and reproductive labor during slavery, yet it was the same medium that embodies the spirits of the Divine forces of African and Amerindian origins, such as the *orixá*, *voduns*, and *caboclos*, and honored their African heritage through adornment practices and ceremonial rituals. This double entendre of corporeal utility under the guise of a capitalist economy and reality reflects how enslaved Africans created and maintained a sense of

autonomy and power under the duress of slavery (Hardening, 2000). The notion of gender is important in this discourse about agency and healing, especially in the traditions of Candomblé. In Salvador, Bahia, Candomblé is a matriarchal religious tradition where *iyalorixas*, or *mãe de santos*, are responsible for carrying out many of the rituals, caring for their godchildren (*filhos/filhas/filhxs de santo*), as they are guardians of the sacred knowledge and are highly respected individuals in their communities. Scholars point to *iyalorixas* as emblems of political power inversion as their social positions in their communities serve counter examples of long-standing narratives regarding Afro-Brazilian women. Many of the Yoruba religious tenants and cultural manifestations are present and are carried out through celebration, ritual, and ceremony particularly involving plants from the African Botanical Legacy.

I refer to power, a concept synonymous to agency and liberation, in this discourse to refer to energetic exchange between interrelationships. Adapting a critical sociology approach highlights the intersection of social inequity, power in terms of agency, and social control in producing illness and health (Freund et al., 2003). Assessing energetic distribution across power structures reflects the intrinsic nature of a concept heavily referred to in public health and social justice work as “equity.” Healing, health, and well-being, according to the philosophical tenants of Nature-based religious traditions, like Candomblé, relies on a system of equity and energetic balance. This work recognizes the complex networks of traditional values within the intersystem of the African diaspora in Brazil and exemplifies the Yoruba model of equilibrium in praxis that operates within a system of disequilibrium. According to the Yoruba model of equilibrium, imbalance causes natural (physical or material) disarray. One of the ways to balance this

disequilibrium is through *restorative justice* via respecting natural resources. Restorative justice is a concept that I would like to employ to reinforce the notion of holistic balance. Within this framework of wellness and well-being, the phrase *restorative justice* calls attention to deficits of justice or societal imbalance. In accordance with this cultural philosophy and imparting the wisdom of bell hooks, healing is an on-going practice. Within the Yoruba religion, ancestral healing modalities are used to channel and to manifest this healing process, especially modalities that utilize plant technology.

Ethnobotanical Approach

I investigate the use of plant technology by mostly Afro Brazilian women who are both directly and indirectly affiliated with the traditions of Candomblé as a way to catalog the prominence of ancestral medicine. The history of the Black woman in Brazil is complex, yet necessary to unearth and to amplify. I chose my research site in a city known for its vast cultural and geographical history of African descendants; it is a landmark where various healing and religious-spiritual traditions have mixed, survived, and emerged over time. One of the elements of this mixing and emergence is the use of plants, especially of the Yoruba-based cosmology, to cure both physical and spiritual infirmaries. An ethnobotanical approach to understanding the various biological properties and social values of plants is useful in this discourse given that Brazil is full of natural resources and has an equally interesting ecological history as Brazil and the West African regions experienced dramatic changes due to anthropogenic activity, such as plantation agriculture and mass migrations between continents.

Ethnobotanists study of the relationship between people and plants. Outside of the scientific interests of nomenclature, taxonomy, and utilitarian classifications,

ethnobotanical methodology serves this project as a reference point to analyze the socio-cultural connections between Afro descendants and the flora in Brazil. While it is important to be able to identify plants by a universal standard and language, it is equally essential to understand the similarities and differences of their uses between communities and societies as this provides indication about the cultural, social, political, and ecological history of plants, people and land. Ethnobotanists and other scientists have accounted for the usage of plants as medicine in Candomblé mainly for their magio-religious value, healing capacities, and botanical properties, yet there are limited studies on the use of sacred plants or the plants of the botanical legacy as a response to institutional discrimination and neglect within the public health sphere in Brazil. Gaps in scholarship regarding the magio-religious provenance of the African botanical legacy in Brazil highlights the need for an epistemological and paradigmatic shift. Applying principles of ethnobotany helps to highlight the complex intersection of health disparities and cultural orientations about health, healing, and well-being. This line of thought challenges the philosophical status-quo that fuels the entities that create inequity. Furthermore, the Yoruba model of equilibrium can be used to highlight the medicinal, magio-spiritual, and therapeutic uses of *ewe* in Candomblé as an act of resistance and cultural memory.

Objectives

This investigation of the relationships formed between people and plants in their cultural context sheds light on the historical and lived experiences of Afro descendants in Brazil in hopes of igniting a transatlantic dialogue as the African Botanical Legacy is carried across the African diaspora through various spiritual-religious traditions. I

underline themes of ancestry and healing through the use of plants by black women in Salvador, Bahia of Brazil given the rich context that throughout centuries of slavery in the Americas, enslaved Africans and their descendants managed to retain their magio-religious and spiritual relationships with one another. These continuities can be observed through music, linguistic, and agricultural practices. The objective of this master's thesis project is to explore the various facets of healing and restorative justice by focusing on African spiritual and ancestral continuities using plants as medicine in their therapeutic and religious-spiritual contexts. Toward this goal, the project is designed to engage with Black women and their experiences that have shaped their understanding of healing and wellbeing while working to reveal the immense diversity within health perspectives outside of the biomedical model. This thesis is an interdisciplinary and exploratory study of diverse scholastic approaches (e.g. anthropology, history, cultural studies and public health).

Methodology:

In the Spring of 2019, I received the Foreign Language and Area Studies (FLAS) fellowship to study Brazilian Portuguese in São Paulo for six weeks. With the assistance of a travel grant, I was able to extend my trip to three months and visit three additional cities. First, I traveled to Belém, Para in the North of Brazil where I was introduced to the strong presence of Afro Amazonian culture, then I traveled to São Paulo for my fellowship and cultural exchange program, next I spent a few days exploring Rio de Janeiro. The last leg of my travel, I spent three weeks in Bahia exploring and networking while gaining my own perspectives and experiences about the local culture opposed to relying on written academic texts by US scholars.

Though my short time in Salvador was relatively short-lived I gained much knowledge and insight on how certain systems operate and most importantly, how people interrelate with their communities, land, and the different spiritualities that link them together. I began to think critically about how to explore my research question regarding health equity, presiding health perspectives throughout the various Afro Brazilian communities, and African-based spirituality, while considering which questions to ask and to whom I should ask. During my last two days in the city, my dear friend who treats me like her daughter recommended that I visit a store in the historic center, *Pelorinho*, called Botica RHOL (*Rede de hortos de plantas medicinais e litúrgicas*). Per her advice, I arrived at the store and was greeted by aromatic scents and a kind saleswoman. I browsed the store and realized that the store sold all-natural cosmetics, like cremes and soaps, as well as medicinal syrups. Moments later, I went upstairs to the other part of the building to meet the owner, Dr. Sueli Conceição, who is also a dancer, choreographer, biologist, and anthropologist. Dr. Conceição was finishing her dance class with a group of Black American tourists and she decided to meet with me afterwards. We met in the courtyard area of the shop and talked about her organization, Botica RHOL, and her work as a scientist and entrepreneur. I was truly blown away by her approach to plant medicine—it did not follow the scientific schema of other scholars. Dr. Conceição spoke of it as a way of life, as if she were a conduit of knowledge and healing as she spoke on the behalf of the spiritual healing power of the sacred plants of Candomblé. She invited me back to the shop to give me additional materials to study: one booklet called “Cartilha da rede hortos de plantas medicinais e litúrgicas” (Network of Medicinal Plants and Vegetable Gardens) and the other a booklet on traditional knowledge, scientific knowledge

pertaining to the botanical culture of the traditional Candomblé *terreiro* communities in the municipality of Lauro de Freitas. I returned to the United States early the next morning with a heavy heart and mind, ready to plan my return trip to Brazil to build upon my knowledge and expand my networks.

In February 2020, I traveled to Salvador, Bahia in Brazil for four weeks to conduct exploratory ethnographic research and to interview at least five members of the community who use medicinal plants in their work. During the planning stages, my selection criteria for research participants was geared towards self-identifying Black community members who work with plant medicine in any capacity. In the end, each participant was selected based on their association and experience with ancestral medicine via plant technology, and how they use them to promote wellness in their communities. While in Bahia, I was able to connect with four Black women who use medicinal plants in their entrepreneurial ventures to make natural cosmetic products, such as soaps, incenses, and perfumes. My ethnographic process was spontaneous and intuition-lead: I met each individual in a different space—some I met by word-of-mouth, social media interactions, and general networking. For example, while I was attending a dance intensive on the Island of Morro de São Paulo, I met the owner of *Medicina da Terra* who sells natural oils for hair and skin. Though I connected with her at the intensive, I found out that she had a business working with ancestral medicine while we were at open mic night. So, I invited each individual to participate in an informal interview with me based on the nature of their work and personal identification with their work. Within this time frame, I was able to connect with four women and able to facilitate an interview one participant. Using a semi-structured interview method, I

prompted questions that spoke to the relationship between the use of sacred plants of as medicine to illuminate prominent features of the holistic nature of healing, ancestry, and health perspectives within Black communities in urban Salvador, Bahia.

When I was unable to ask certain questions due to time constraints, I consulted social media platforms, such as Instagram and YouTube, to gather other preliminary information for this thesis to learn about the products that each person offers as well as how they interact with their target audiences. To my surprise, I was garnering the use of the relatively new field of digital anthropology methodologies, an area of study that engages with online communities to learn about their worldviews whereas other anthropologists website data to conduct research. The interview questions and data tables displaying the different plants that are used in the participants' work are accessible in Appendix 1 and Appendix 2, respectively.

Conclusion

Given the importance of the various healing traditions in the history and lived experiences of black people in Brazil, I seek to generate an international, trans-diasporic discourse that focuses on how ancestral medicine influences health perspectives, well-being, and the narratives of Afro descendants. The concept of well-being is important to ideas of political power, identity, and justice. At the center of this dialogue is the question of the ecological and spiritual relationship between black communities and their health for several reasons: Afro Brazilians face significant health challenges due to the social and historical structure in Brazil, such poverty, internalized discrimination, and lack of political representation; Afro Brazilians in Brazil are hosts to much plant knowledge and ancestral traditions using plant medicine, yet receive little academic attention on the

subject; and there is a need for a shift in the evaluation methods on health advocacy, promotion, education, and competency. Michelle Mitchem proposes that “Healing—of self or of others—is an act of power” (2008), fueling the idea that operating within this source of power and agency is worthy of recognition on many levels as enslaved Africans and their successors were divorced from their homes, traditions, and identities and reestablished them on a completely different continent. They redefined their ethnomedicine, adapting and redefining their magic. Concurrently, there are many practices, systems of knowledge, and beliefs that were lost to time, trauma, circumstance, and the lack of written history by those who experienced it, so it is appropriate to claim that chattel slavery and the voyages of the transatlantic slave trade cultivated many mysteries and locked away many truths. So, that which is practical, tangible, and observable of these histories in these contemporary times is precious and valuable.

Attempting to speak for those who are marginalized and politically oppressed perpetuates the idea that the “subaltern” need an outsider to advocate for them in order to change to be implemented. Rather, passing the microphone and amplifying the voices those who have experienced and continue to fight to be heard is a form of recognizing the Yoruba model of equilibrium in praxis—as black women are “balancing the scales” by employing medicine based on ancestral knowledge, thereby curing and healing diseases of the physical body, spiritual body, and the social body through restorative justice. To frame this analysis, Chapter Two challenges the political definitions of health, then provide context surrounding Black health in the Brazilian public health field. Then I explore the ethnobotanical use of sacred plants the Afro-Brazilian religious traditions of Candomblé in Chapter Three. In the subsequent chapters, I elaborate in Chapter Four on

my ethnographic adventure of this project as an exploratory study of how black women in Brazil use plants as a healing modality in spiritual, physical, and entrepreneurial endeavors as a part of the botanical legacy of the Black Atlantic. I expound upon the Yoruba model of equilibrium as a philosophical paradigm in Chapter Five, and conclude with my final thoughts in Chapter Six. Following the wisdom of bell hooks, I aim to reevaluate what equity and justice means pertaining to health while using a philosophical and epistemological lens that challenges the preexisting one that solely relies on objective sensibilities.

CHAPTER 2: PUBLIC HEALTH RACE & HEALTH DISPARITIES: An Analysis of Race and Health Outcomes in Afro Descendant Communities

Brazil, one of the five largest countries in the world, with an estimated 212.5 million inhabitants is divided into 26 states and a Federal District, and 5,570 municipalities (PAHO, 2017; United Nations 2020). The country is organized into five geographical regions (North, Northeast, Southeast, South, and Central-West), with stark cultural, demographic, and economic differences. Like its geographic regions and cultural composition, the complex racial history of Brazil is nuanced, and its consequences are evident in unlikely spheres of society, such as the health sector. To this effect, there is also a lack of considerable research and public health studies on how racism informs health outcomes, especially for Afro-descendants in Brazil. The Afro-descendant population represents, not only the majority of the Brazilian population, according to the latest census data, but also represents the vast majority of users of the *Sistema Unico de Saúde* (SUS), United Health System (IBGE estatísticas). There are indications that black populations in Brazil face higher illiteracy rates, lower wages, poor housing conditions and access to sanitation, and other consequences of living in poor socioeconomic conditions (Amorim, 2018). Health inequities and inequalities exist globally, still it is important to discuss the facets of this form of inequity based on social structures and trends on the grounds of race and discrimination (Faro and Pereira, 2011). Race, according to social constructionist theory, is contextual and multidimensional, hinging on factors, including “self-perception, ascription by others, interactional cues, institutional contexts, and prevailing cultural understandings of consequential markers of human difference (Bailey et al., 2013). Race does not indicate ethnic origin, whereas ethnicity

implies a lineage of descent as it is rooted in ancestry and “can unleash or elicit the inherent historical effects and influences of colonialism and perceptions regarding ancestry” (Okediji, 2004). Jurema Werneck (2005) suggests that racism is an ideological phenomenon, an important factor in the conversation regarding the violation of rights and the production of inequities, especially in the health field. Research on racial dynamics in Brazil usually includes a range of identification practices: white (*branco*), brown (*pardo*, or “mixed”), and black (*preto*). The longstanding myth of a racial democracy in Brazil’s contemporary society is debunked by the use of racial stratification principles. Many ideas surrounding race were created based on the notion of miscegenation, or *mestizagem*, a term often used to describe racial mixing and to advocate for a racial democracy, which was claimed to prove racial harmony because of interracial reproduction in Brazil (Aidoo, 2018). Due to increasing globalization, scholarly debates over the Brazilian national identity intensified regarding Brazil’s mixed-race population, particularly at the end of the twentieth century, as this period was marked by the abolition of slavery in 1888 and the restructuring of the elite and middle classes (Campos and Nascimento, 2008).

Epidemiological data provided by Brazil’s Ministry of Health and other federal entities also indicate that black populations in Brazil have high rates of maternal mortality, high incidences of preventable diseases, and experience institutional racism and discrimination which ultimately affects their health outcomes and quality of life (Chor and Lima, 2005; Nações Unidas Brasil, 2017; Oliveira, 2014). These indices pinpoint race as constituting factor that structures health inequities, thus highlighting correlations between the discrepancies of conditions and quality of life and one’s

vulnerability to illness (Gonçalves, 2017). Furthermore, economic and social inequity play a role as contributors to these indications. Brazil's public health sector has implemented policies for social inclusion, according to the Pan American Health Organization (PAHO 2017). Efforts on local, state, and federal levels seek to diminish the effects of these inequities, such as state policies, institutional programs, and campaigns, such as Mais Medicos, *Rede Nacional de Religiões Afro Brasileiros* (RENAFRO), and other entities work with these issues. This chapter discusses some of the prominent issues that Afro-descendant communities face due to racial discrimination, as presented in public health data, underlines what measures are implemented on various institutional levels, and provides suggestions for future studies. Various sources were reviewed, ranging from the documents from the Brazilian Ministry of Health, federal institution blog sites, and scientific databases. They were selected based on their relevance to the discourse and investigations on race, health, and institutional interventions for black health.

Argument:

Chor and Lima (2005) propose the following hypotheses to explain the scarcity of epidemiological data and investigations regarding the prevalence and distribution of diseases according to ethnicity and its connection with health outcomes in Brazil: (1) the “myth of racial democracy” accepted as a cultural and philosophical tenant; they suggest this may have influenced the lack of academic questions related to ethnicity due to its perceived irrelevance and ideological inappropriateness; (2) ethnic classification is difficult to pursue and prone to measurement errors; (3) ideologically separating class and ethnicity, thus treating them as mutually independent variables. Overall, ethnicity is a

relevant factor in the social understanding of culture, history, and lived experiences, however, it should not be the defining factor in these determinations. Sansone (2003) refers to ethnicity as a complex, dynamic social construction, especially in the context of racialization as it one of the many ways to express and experience ethnicity. The difference between race and ethnicity lays in their respective societal operations. Rejecting biological notions of race because of its futility and inaccuracy, however, does not undo the historical reality of the effects of colonization, slavery, and other forms of violence on Indigenous and Afro-descendant communities. On the other hand, it is important to consider how interpretations of the causes of high mortality and morbidity are formed; here, this evolves into a question of access, quality of life, and lifestyle, rather than one of quasi scientific assumptions. The question of access to care should not be addressed with a singular lens. Access to care is a “complex mixture of cultural factors and individual preferences of patients, characteristics, and practices of healthcare professionals (such as racism, stereotyping, bias, discrimination, and lack of cultural safety), and the system of delivery of health care” (Pearce et al. 2004). All the combining factors that make up these elements should be evaluated and assessed fully and holistically. Evaluating the use of racial categories speaks to its historical and social function in the realities and political identities of Afro-Brazilians and their health experiences.

Background:

Brazil’s Public Health system is based on a universal healthcare model called the *Sistema Unica de Saúde, SUS* (United Health System), which was created as part of the Federal Constitution of 1988 recognizing health as a human right in response to the

democratic movement after the military dictatorship, (PAHO, 2017; Massuda, 2018). The following reforms in health system governance and primary healthcare coverage are reported to have a positive impact on health service, coverage, and health outcomes. The system was founded upon a universal, comprehensive model and it is organized and managed on tri-tiered, decentralized management system: the federal level maintained by the Ministry of Health followed by the state health secretariats then the municipal health secretariats (PAHO, 2017). The three basic principles of SUS are universalization, equity, and integrality (Ministério da Saúde, 2019). Universalization promotes the idea that health is a right to all citizens and should be guaranteed by the state, thus services must be available to all persons, regardless of gender, race, occupation, or other social or economic indicators. The principle of equity aims to reduce inequalities, given that people do not have equal life experiences and have different needs, therefore investments are directed where the need is greatest. Integrality strives to meet all their needs. To this end, the integration of actions, such as health promotion, disease prevention, treatment and rehabilitation, are prioritized in this model. This principle of integration presupposes an intersectoral approach for the different areas that impact health and quality of life of individuals (Ministério de Saúde, 2019). SUS developed several essential indicators for health planning and management, including demographic, socioeconomic, mortality, morbidity and risk factors, resources, and coverage —and are periodically supported by the surrounding health services. After considering the initial purpose and central objectives of SUS, it is necessary to evaluate the concept of race in the health field, including the application of this concept by professionals in the field (Gonçalves, 2017).

History of Race, Slavery and Identity in Brazil:

In Brazil, slavery left a significant mark on the social position of Afro-descendants for generations to come. Prior to the slave trade, Indigenous people were also subjected to the horrors of slavery and exposed to epidemic infectious diseases, resulting in high mortality rates and social disorganization and, in some cases, marginalization (Chor and Lima, 2005). Beginning to understand the significance and importance of these studies, not just for their scientific merit, is a step towards understanding the various factors that impact health outcomes. Given the complexity and historically nuanced discourse on race and racism in Brazil, it is important to understand racism as an ideological construct whose practices are embodied in the different processes of racial discrimination. Racism is perpetuated and utilized as a tool for social control and exclusion, as it is used according to the interests of those who benefit from it (Gonçalves, 2018). Some of the country's socio-racial dilemmas are based on the still-existing myth of racial democracy that suggests that Brazil's racial harmony is due to the society's racial diversity (Brasil and Trad, 2012). Miscegenation, the term meaning racial mixture, is a term assumed with numerous meanings and conflicts. According to Aidoo, miscegenation in the social and historical context in Brazil "... functions almost exclusively within a heteronormative framework — we think of it primarily as sex between black or indigenous women and white men" (2018). At the end of the nineteenth century, slavery was abolished in 1888 and Brazil's African population significantly outnumbered the white population, resulting in international political dismay from European countries and the United States. So, white Brazilian elites encouraged an *embranqueamento*, or whitening, process that functioned as an open-door immigration

policy geared towards Europeans, hoping to “absorb” the black population (Sterling, 2010; Amorim, 2018). It was a process that encouraged interracial reproduction and in its modern context, it allegedly proves the idea of Brazil as a “racially harmonious” nation, however it affirmed efforts to maintain racial hegemony as racial-mixing was an attempt at diminishing the black populace in Brazil (Campos and Nascimento, 2008). The myth of racial democracy in Brazil works “to hide and mask the goals of elitist whites to fulfill their purposes of power, control, pleasure, economic gain, slave reproduction and humiliation” (Aidoo, 2018). Using this epistemological framework, miscegenation is a term used to mask the violent motives that affected the lives of enslaved women, men, and children. Consequently, it was a catalyst for other forms of institutional violence in Brazil, such as poverty, discrimination, and health injustice, based on ideas racial inferiority on a systematic level.

In the late nineteenth century, Brazilian national identity was cultivated under the guise that considered Brazilian slavery less malevolent compared to other countries, yet these myths and social structures, however, are part of what made modern Brazil (Aidoo, 2018). The image of harmonious race relations greatly contradicted the reality of the pervasive abuse and exploitation of slave men, women and children, especially as scholars attempted to an erroneous image of benevolent slavery in Brazil in comparison to other region, like the United States or the Caribbean. During the colonial period, many of the mechanisms of white supremacy were driven by economic and psychological power. In order to ensure a constant supply of slaves and subsequently uphold their economic position, slaveholders asserted control over enslaved women, thereby controlling abusing their reproductive capabilities. Black women were subjugated to the domination of the

demands of slavery, including mother of nurse for the children of slave quarters, manual laborer and servant of sexual acts. While it was considered a commodity, their body and workforce were exploited (Correa and Rocha, 2014). Sterling provides a historical account of the experiences of black women during slavery:

“Like all diasporic societies, enslaved Afro-Brazilian women were forced and coerced into providing sexual services to white men. Gilberto Freyre, in his seminal work, *The Masters and the Slaves*, refers pointedly to the sexual accessibility of enslaved women, who were often made into prostitutes and objects of sexual abuse by white men. The “sexual fire” of these women, remarked upon by Loretto Cuotto, a traveler in the late 18th century Brazil, excited and tempted these white men” (2010).

Freyre’s work perpetuated the mythic construction of racial harmony and encouraged interracial sexual relationships because they produced mix-raced offspring to justify the relative racial tolerance in Brazil. Within this information, “the act of sex was central to the perpetuation of slavery, and race, and patriarchal hegemony, maintaining violence to control, degrade, torture and kill slave men, women, and children and to solidify white male supremacy” (Aidoo, 2018). Ultimately, enslaved black women were the target of sexual abuse primarily because of her ability to reproduce more slave children and contribute to the slaveholders’ legacy. In plantations, enslaved black women created the wealth used by plantation owners and owners — including white elites, mulattos, and free slaves. Children inherited the legal status of their mother rather than their father, and consequently, enslaved women reproduced the perpetuated slave labor force. In history and time, the black woman became a symbol for labor, her health lacked in social priority, and she landed at the bottom of the social hierarchy.

Gender, the Physical Body, Class and Health

Afro-Brazilian women served as maid, *mãe pretas*, sex workers, sex slaves, or mistresses, and they continue to be underpaid and largely occupy mainly low-paying service positions and are also subjected to greater levels of unemployment (Sterling, 2010). According to Werneck:

“Black women do not exist. Or, to put it another way: black women, as identity and political subjects, are the result of an articulation of heterogeneities, resulting from historical, political and cultural demands, to face the adverse conditions established by the western Eurocentric domination throughout the centuries of slavery , colonial expropriation and racialized and racist modernity in which we live”(2009)

As Afro-Brazilian women are disproportionately represented in the domestic labor force, Silva highlights the following: “The pressures they suffer in their daily lives are motivated by the prejudices with which they are forced to live, not only in the workplace but in society in general” (2000). Lingering ideologies of slavery promote the idea that black women should occupy the labor market with manual labor, lower-income economic positions. Black individuals — male or female, whether in health care or not — are still surrounded by stereotypes and stigmas: “Brazil being one of the countries that concentrates the largest number of blacks and where the discourse of racial democracy is maintained, why is it so painful to be black? Even in the face of democratic country discourse, blacks in Brazil continue to be considered second-class citizens” (Silva, 2000). To Silva’s point, one’s socioeconomic status, economic mobility, and race are closely intertwined with social narratives and discriminatory practices which are sustained by society at large. Chor and Lima report racial discrimination “as differentiated treatment based on race that disadvantages specific racial groups” (2005). Racial oppression

predicts the economic mobility of the oppressed people, weakening and affecting educational opportunities and fundamentally, their quality of life and health.

Particularly in the health sector, Silva (2000) points out that black professionals occupy some spaces, adding representation in a historically unrepresented area. Most health professionals, such as a doctors, dentists, pharmacists, and veterinarians are usually occupied by white men and it is rare for black women to fill these positions. Although the number of black women in these areas has increased, the entry of black women in these areas has always been very difficult because of existing barriers to educational opportunities (Carrea and Rocha, 2014). The number of black women who can attend a university is not enough to represent 1% of this population: "In universities, they usually occupy only subordinate functions, washing bathrooms and mopping the floor" (Silva, 2000). Speaking to representation, it is necessary to analyze the factors that perpetuate economic oppression on both racial and non-racial terms.

Economic mobility, in several cases, ensures a good quality of life, educational opportunities, and ultimately increases the likelihood of good health. Whereas, facing oppression and fighting poverty adds stressors and pressures to one's life and ultimately increases disease vulnerability. Silva highlighted the following: "The pressures they suffer in their daily lives are motivated by the prejudices with which they are forced to live, not only in the work environment but in society in general" (2000). To exist as a black woman in any social segment, as the obstacles that she needs to navigate and conquer are monumental, including in the job market. Subjugated by discrimination and racial prejudice, she is also a victim of machismo and prejudices against black women in any profession, even those with less prestige (Silva 2000).

Racial oppression diminishes economic mobility of those who face oppression, weakening and affecting educational opportunities and fundamentally, quality of life and health. Current race relations and racial identity politics in Brazil reflect its complex political history of slavery and colonial development. Conceptually and intrinsically, miscegenation, as explained by Pavão et al. (2012), is associated with Brazilian history and currently serves as a sign of “racial tolerance,” yet individuals of African descent have poorer social and health indicators compared to white individuals. In this context, the concept of “whiteness” is a reference point and social boundary for group distinctions where it influences the structure of the social mold (Faro and Pereira, 2011). For Pavão et al., racism is belief of racial superiority between groups and it is used to “devise and justify actions that create inequality between racial groups” (2012). To this point, empirical data demonstrates that perceived racial discrimination is correlated to a class of stressors that could have negative consequences for health (Pavão et al., 2012). The effects of environmental, social, and psychological stressors due to perceived racial discrimination are worthy of investigation given that it presents as a public health issue and a threat to welfare.

Health Determinants: Socioeconomic factors and Race

Additionally, race has been applied biologically to distinguish groups that are assumed to be genetically related (Pearce et al., 2004). Current debates on biological definitions of race state that it is futile classification system considering the genome project, which ratified that human races cannot be distinguished on a genetic basis (Geiger, 2006). Since 99% of DNA is shared information within the human genome, biological arguments for race are null given that studies on population genetics indicate

genotypic differentiation does not exist (Faro and Pereira, 2011). This way, race cannot be prioritized genetically, and these findings suggest there are other methods for social structure discriminants based on skin color. On one hand, race is a social construct based on physical presentation and on the other, ethnicity is another construct but defined by biological, historical, and cultural orientations and practices, including but not limited to language, religion, and lifestyle (Pearce et al., 2004). There are distinguishing factors that define race versus ethnicity both biologically and socially. Operating within these distinct definitions, it is worthy of consideration that epidemiologists, anthropologists, and other scholars contemplate the scientific and social value of these classification methods.

There is a close correlation between the effects of Brazilian social history, race relations, and health outcomes of Afro descendants in Brazil. According to Chor and Lima (2005), race should be examined as a strong predictor of “variability in mortality.” These are serious claims, yet they are supported by the small amount of data declaring early mortality is more frequent among indigenous and black Brazilians; mortality rates from stroke and especially maternal mortality rates are exceedingly higher among black women; violence occurs predominantly among young black men (Chor and Lima, 2005). The *Pesquisa Nacional de Saúde* (PNS), or National Health Survey, reports that Afro descendants in Brazil face more disadvantages in terms of quality of care, accessibility, and vulnerability to disease (ODS, 2018). Also, analysis of perceived discrimination and health revealed a significant negative effect of racial discrimination on physical and mental health outcomes, especially due to stress-related circumstances (Pavão et al., 2012). In the same regard, “racism does not necessarily come in the form of explicit discriminatory attitudes. In institutions it can occur in the form of coded language

(symbolic violence) and neglect (indifference to need)” (Oliveira, 2014). It is important to note these variable expressions of racism because they are not overt in explicit language or actions, as it can be subliminal, thus it requires different methods of evaluation for effective future planning on institutions.

Chor and Lima (2005) note that there are limited data on racial discrimination in the health sector in contrast to the amount of data on the subject in the areas of education, the workforce, and law enforcement. In this sense, this lack of attention is a structural factor with underlying economic and social disadvantages experienced by both racial and ethnic minorities. Brazil is recorded to have the largest population of individuals with African ancestry outside of the African continent (Pavão et al., 2012; Chor and Lima, 2005). According to the 2010 census data, 50.7% of Brazil’s population of 191 million individuals self-identified as *preta* and *pardo*, or black and mixed race (IBGE estatísticas). Though black identity politics in Brazil remains a contested subject, I will adhere to these self-identification practices, many of which evolved due to Brazil’s black liberation movements, to define blackness for the sake of this study. Moreover, reports on race and health in Brazil reveal that social determinants of health—defined as the conditions in which a person lives and works that influence a population’s vulnerability to disease—such as race inequality, are shown to affect health outcomes on various levels (United Nations Brazil 2018). The majority of public health studies reviewed for this paper that report findings on the relationship between health and race bring attention to the following statistics:

- Black women face higher rates of maternal mortality compared to white women (Nações Unidas Brasil, 2017; Oliveira, 2014)

- 80% of the population who use the federal healthcare system self-identify as black (Nações Unidas Brasil, 2017; UN Brazil, 2018)
- Syphilis, leprosy, and tuberculosis are more prevalent in black populations (Objective Strategies of Sustainable Development; UN Brazil, 2018)
- Sickle cell anemia, type two diabetes (diabetes mellitus), and arterial hypertension are the most common illness among the black populations in Brazil. (Ministerio de Saúde, 2017; Campos, 2018; Saúde da População Negra)
- In 2016, 55% of registered AIDS cases were among black people while 43.9% were among white people (UN Brazil, 2018)

This measurement of inclusion could fulfill another amendment in the WHO Constitution: “The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition” (WHO 1946). This inclusive model of care could be one of the first steps to generate discourse on the magnitude of which Afro descendants face health disparities.

Researchers propose the following five factors that negatively impact health outcomes: “economic and social deprivation; toxic substances and hazardous conditions; socially inflicted trauma (mental, physical, and sexual); targeted marketing of commodities such as junk food and psychoactive substances; and inadequate or degrading medical care” (Pavão et al, 2012). Racism is a factor that affects working conditions, employment opportunities, income and access to information, goods, and services, and it can determine the quality of care and care provided (Batista, 2013; Amorim, 2018). Therefore, chances of assuming higher levels of economic mobility is

difficult to achieve and maintain for black people in Brazil due to various reasons that are linked to institutional discrimination, historic marginalization, and state violence.

Discussing Race and Health in Brazil: Black Feminist Approach at the Forefront

Jurema Werneck, one of the coordinators from *Criola*, a social activist group based in Rio de Janeiro, Brazil, proposes that confronting institutional racism must be combined with other measures to reduce racial inequities (UN Brazil 2018). Measuring inequality based on political, economic, and social dispositions provides a foundational basis for future plans to address them systematically (Faustino, 2000). And not adopting wholistic measures aimed at combating inequities based on race can perpetuate the existence of those inequities. A report by the United Nations Brazil (2018) calls for a well-rounded, comprehensive health study of Brazil's black populace in which health for the black population in Brazil is assessed for data collection methods, policy review, and there should be an examination of the external causes and sources of health trauma to understand this social inequity. In order to understand how needs are being met or unmet, data collection methods and measurements should also be evaluated and improved. Fernanda Lopes from the United Nations Population Fund (UNFPA) points out the lack of the use of data disaggregation as a management tool (Nações Unidas Brasil 2017), as inequities are evident when data are disaggregated by race categories. It is difficult to assess needs, execute plans and programs, and change living conditions when these indicators are not considered (Nações Unidas Brasil 2018). This does not indicate that data are insufficient, rather the quality and breadth of the data should be taken into consideration so that investments, surveys, policies, plans are effective and efficient. If ignored, inequities are perpetuated, and needs remain unmet.

The 1988 Constitution was designed to reform the issues that stifle women as it “guarantees equality before the law regardless of sex, race, profession, religious, or political beliefs. It ensures women access to the labor market, equal pay, maternity leave, and rights to contraception and abortion... It also allows for social security benefits for domestic workers, land rights, and protection against domestic violence” (Sterling, 2010). Afro-Brazilian women, however, were left out of this “journey to empowerment”, and like Afro-Brazilian philosopher and activist Sueli Carneiro points out, this practice further widens the gap between theory and praxis (Carneiro, 1999).

Race as a measurement tool:

Faro and Pereira (2011) note social inequality is a prominent force in the causality of health inequalities, thereby generating an additional disparity based on stress prevalence. Factoring in the functions of racism, it both creates and sustains life stressors in social relations by provoking fundamental limitations in the individual’s life, which influences the residual stress experienced. In this light, the correlation between the deleterious impacts of racism and the principle of social distribution of stress is one necessary of systemization and investigation; it becomes a question based on socio-cultural, economic, and political merit. Faro and Pereira propose that “inequity seems to be a remarkable feature in societies based on racialized, social relationships, in which skin color usually leads to segregation of minorities and a discrepancy in access resources needed for human development” (2011). In a society such as Brazil where race is a culturally ambiguous and socially debated concept, how can investigators measure its functions and effects on health? Like in other countries, there is a lack of consensus on the best method for employing ethnic categorization in Brazil and it remains one of the

most frequently cited classification issues (Chor and Lima 2005). Given the evidence indicating that racial discrimination is one of the structuring factors of the economic and social disadvantages faced by ethnic minorities in Brazil, this framework can be used to analyze its effects on health. At the same time, if race is a social construct and a scientifically obsolete method of measurement, how can these analyses prove effective?

Studying health outcomes according to ethnic classification are theoretically hindered and challenged by the definition of race and classification barriers in Brazil. The traditional biological concept of race was defined in terms of alleged “genetic differences” between groups, however only about 7% of the complete human genetic variation is distinguishable by race. Additionally, genetics can only account for a few ethnic differences in health, so race is not epistemologically functional as a biological category. By interacting with other social markers of position (e.g. gender, education, income), ethnicity could be used to assess greater or lesser exposure to different health risks (Chor and Lima, 2005; Pearce et al., 2004). Contrarily, using race as a social construct, not a biological category can reveal information about identities, access to resources, and the valuation of society. It is only effective, however, if there is priority in finding “the most appropriate classification for each historical-social context, as well as the strategy (eg, self-classification vs. classification by a third party) that achieves results appropriate to the objectives of each investigation (Chor and Lima 2005). In other words, racial discrimination, as argued by Kazarian (2001), that functions on institutional level and within intergroup relations is fueled by racist ideology. To this effect, to Faro and Pereira (2011), health and racism are bound by the following axes: economic disenfranchisement found amongst discriminated groups, negative self-perception as a

member of said marginalized group, and lastly, the lingering threat of being a victim of racism. Based on this hypothesis, the dynamics of racisms are based on (the effects of) racial identity and constant threat to welfare.

Actions and Initiatives:

Some of the actions, initiatives, and organizations that work towards challenging and eliminating discrimination and health inequity on the basis of race work on federal, municipal, and local levels. One historical example of public health action and collaboration that address the issue of racial equality is one that began in Brazil during the 1980s. Activists of the Black Social Movement spoke to these issues at both the state and municipal levels (Brasil and Tred, 2012). As a result of their advocacy and demands of the *Marcha Zumbi dos Palmares*, these efforts lead to the creation of the Interministerial Working Group to Appreciate the Black Population, followed by national conferences and seminars to speak to racial issues in health on an institutional scale.

On the federal level, the Ministry of Health has several initiatives that specifically work against this issue of health inequity, including but not limited to the following: the *Não fique em silêncio* (Don't Stay in Silence) campaign, the *Política Nacional de Saúde Integral da População Negra* (PNSIPN), National Policy of Integral Health for the Black Population, and Programa Mais Medicos. In 2016, the Ministry of Health launched the “*Não fique em silêncio*” campaign which is a federal effort that advocates against racism in the public health care system. The slogan, “Racism is bad for your health. Denounce and Call 136” was publicized on television, radio, print, and social media networks to encourage the country to speak out against racial discrimination and violence in the SUS.

Contrarily, there are no notable reports on the effectiveness of this campaign and the reduction of health inequities on the basis of race.

The *Política Nacional de Saúde Integral da População Negra*, is a federal program created by the Ministry of Health intended to highlight the importance of racism as a social determinant of health (Batista et al. 2013). It is a policy that affirms the principles of SUS, such as universal accessibility, comprehensive care, equal health care and political-administrative decentralization (Campos 2018). The PNSIPN seeks to reduce racial inequalities, include socially vulnerable groups, complement, improve and make universal policy feasible. Among PNSIPN's interventions, the following initiatives stand out as indicated by Batista (2013):

- Implementation of a state health plan, which proposes to guarantee healthcare for the black population
- Organize an annual operating plan
- Utilization of race categories in SUS information systems, particularly in the Hospital Information System and Outpatient Information System

Applying racial categories in SUS informatics were considered “fundamental for the institutionalization of the health care policy of the black population in the state of São Paulo” (Batista et al 2013). The main guidelines focus on strengthening comprehensive health care for the black population at all stages of life; implementation of the monitoring and evaluation of actions that fight against racism and the reduction of ethnic-racial inequalities in the health field; and development of information, communication, and education processes that deconstruct stigma and prejudice while reducing vulnerabilities (Saúde da População Negra). Brasil and Trad (2012) note that PNSIPN is a historical

resultant of the actions of various social organizations, particularly the Black Social Movement. As a result, the efforts and documents launched during this process lead to the establishment of ethno-racial equity standards in Brazil's universal health policy.

The *Programa Mais Medicos* is a federal program, supported at both state and municipal levels, that seeks to improve care for people who utilize SUS services by bringing more physicians to rural municipalities and city peripheries in Brazil, places that experience a shortage or absence of health professionals. The program was launched in 2013 and invests in renovating, constructing, and expanding basic health units. *Programa Mais Medicos* works to extend access to healthcare to patients by placing more doctors in areas with great need, to improve primary care services by way of intensive medical education to promote stronger patient-doctor relationships, and to make infrastructural improvements (Programa Mais Medicos). Reports indicate that *Programa Mais Medicos* covers 73% of Brazilian cities and 34 Indigenous Special Health Districts. PAHO (2016) reports how the presence of medical professionals in *Quilombola* communities, particularly in the Pernambuco region, has improved the lives of the residents in the city of Alagoinha. *Quilombolas* are descendants of formerly enslaved Africans who escaped slavery and created independent communities with other *quilombos* and/or integrated with Indigenous societies. *Programa Mais Medicos* has also been reported effective for a large rural *Quilombola* community in the municipality of São Mateus, where local medical attention was virtually absent (PAHO 2015). Reports on the implementation of this integrative federal program are consistent in expressing how *Programa Mais Medicos* meets the needs of Afro descendant communities that have been historically marginalized.

Lastly, *Rede Nacional de Religiões Afro- Brasileiras e Saúde* (RENAFRO), or the National Network of Afro Brazilian Religions and Health, is a prominent entity that promotes the social and health interests of Afro descendants in Brazil and adherents of Afro Brazilian religions in various locations in the country. RENA FRO was founded in 2003 to fight for the right to health, vouch for respect and the valorization of traditional health practices, and to promote dialogue with SUS about the health concerns of Afro descendent communities (Silva, 2005). With more than 23 centers in 12 states, RENA FRO advocates for human rights, such as the right to health care services, and denounces racial discrimination and intolerance. They develop various activities aimed at empowering leaders of Afro Brazilian religious traditions to exercise social control of public policies that directly and indirectly affect the health and wellbeing of Afro descendants. Their goals are as follows:

- to fight for the human right to health;
- enhance the knowledge of the terreiros in relation to health;
- monitor and intervene in public health policies exercising social control;
- combat racism, sexism, homophobia and all forms of intolerance;
- legitimize the leaderships of the terreiros as holders of knowledge and powers to demand of the local authorities a quality service, in which the culture of the terreiro is recognized and respected;
- and establish a channel of communication between the adherents of Afro-Brazilian religious tradition, managers, health professionals and health advisers

Reports indicate that the organization has made progress towards their goals as they have built visibility on the three spheres of government (federal, state, and municipal); inclusion of *terreiros*, religious spaces or temples, in SUS actions in various cities; and have greater representation of *terreiro* leaders in public health policy activities, such as participation in health council conferences.

The studies reviewed for this chapter deal with questions on race, health, and equity for Brazil's black populace. They center on some epidemiological data which underscore prominent health rates and statistics that black people face, such as sickle cell anemia, hypertension, and high maternal mortality rates. Furthermore, critiques regarding the United Health System (SUS) are centered on its racial demographic identification methods and ability to meet the needs of Afro descendants in Brazil by way of challenging social determinants of health due to institutional racism. In epidemiological research, SUS occasionally uses racial categories a matter of recording an accurate indication of the living and health conditions of black population in Brazil. Additionally, it is necessary to evaluate the efficacy of institutional involvement and action on the federal, state, and municipal levels with programs, such as *Programa Mais Medicos*, *Política Nacional de Saúde Integral da População Negra* and *Rede Nacional de Religiões Afro- Brasileiras e Saúde*. This approach offers insight into how the right health is being protected, integrated, and advocated on various levels. Despite sociocultural challenges to data collection regarding the black population and health in Brazil, existing reports articulate how socioeconomic status and the privileges associated with high levels of status has a profound effect on health outcomes.

Discourse and research on race, racism, and health outcomes will ultimately provide a multifaceted approach to evaluate how social structures both directly and indirectly affect lives. In Western societies, race is a social stratification tool (Faro and Pereira, 2011). Rather than accepting race as the only suitable measurement of human experience, health status, or classification system, it could be used to understand self-identification practices and commonalities within and across groups that use race to construct their social reality. While searching for methods of social inclusion for historically marginalized groups, it is necessary to analyze what fundamental theories are applied to categorize people, groups, and communities, especially if the historic implications of these theories is also rooted in oppression and disenfranchisement. This broad analysis of race and health for Afro-descendants attempts to underscore the various socioeconomic, cultural, historical, and epistemological elements that ultimately affect health outcomes and quality of life. Finally, evaluating appropriate research methodologies for marginalized groups requires a prioritization of resources for policy review, investigative research, and implementation of the necessary actions to resolve them in hopes of reducing health inequity for Afro-descendant populations in Brazil on an institutional level.

Conclusion:

Existing public health data about Black health in Brazil points to the health disparities for the demographic and the historical reality for many Black women in Brazil is one of survival. Centering the health experiences of Afro-descendants, especially women, in public health is to unearth the subsequent historical exclusion and marginalization that their descendants adapt. According to the Federal Constitution and

the World Health Organization, health is a right, yet data on Black health does not reflect these written constitutions. Within this conservative framework, health appears to be reflected in what resources are available, rather than actual indicators of health, such as quality of life. Public health surveys and studies provide statistical and demographic indicators of a given population, however there are a series of limitations in the methodologies that are implemented to obtain this data.

Large institutions, such as the World Health Organization, consider the definition of “holistic health” but by similar standards of the Western biomedical model that seeks to empirical validation. In order to offer a paradigm shift in how health is evaluated, the next chapter provides an in-depth analysis of the use of plant technology of the African botanical legacy of the traditions of Candomblé to demonstrate an alternative view of health that promotes holistic wellness. With this framework, conversations centering on health and healing emphasize the importance of restorative justice and balance.

CHAPTER THREE: THE AFRICAN BOTANICAL LEGACY & CANDOMBLÉ

African Heritage in Brazil

African legacies and heritages in Brazil remain potent and visible, especially as Brazil has the largest population of African descendants outside of the continent of Africa. Approximately 12.5 million Africans were a part of the economic enterprise and subjugated to slavery and disseminated across the Americas from the sixteenth century to the mid-nineteenth century, bringing about six million enslaved Africans to Brazil from 1538 to 1851 exceeding numbers in all other colonies and countries (Voeks, 2018; Voeks, 1997). In the name of colonial expansion and the order of the Catholic church, the forced exportation of Africans also channeled the migration of African technology, culture, microorganisms, and other biodiversity, such as plants and animals (Conniff and Davis, 1994). Capitalist ventures, like sugar plantations, tobacco cultivation, gold mining, and coffee harvesting, laid the foundation for Brazil's labor force, social control mechanisms, and race relations. Some indigenous populations in Brazil, who are considered the hosts of abundant traditional knowledge of the Brazilian terrain and biodiversity, were first targeted and exploited by Portuguese colonists for captive labor. Later with the enforced arrival of enslaved Africans, "the similarities between Amerindian cultures and those of the many slaves brought to Brazil sometimes fostered African-native cultural exchanges and collaboration" (Conniff and Davis, 1994). *Quilombo*, or maroon, communities were created between formerly enslaved Africans who escaped slavery and natives of Brazil, hence the interactions of these two marginalized groups presents a prominent example of the creolization process as observed in land and spiritual practices both inclusively and exclusively due to

displacement and hegemonic domination on behalf of slave owners and European colonizers. To this effect, the ensuing “botanical experimentation” by slaves later lead to a developed sensibility for familiar plant families that served as subsistence and medicine in Brazil.

The ethnobiological knowledge of the Afro botanical legacy is quite extensive and employs plants native to both the New World and the African continent. This chapter examines some of the main uses of the *ewé*, or the sacred leaves and plants, within the Candomblé religion and practice as an extension of the African botanical legacy. I will briefly engage with the histories of how enslaved Africans maintained their sacred practices, extensive botanical knowledge, and ancestral medicine despite their forced and violent migration to a new landscape, while acknowledging how remarkable and challenging this endeavor was. Carney (2013) provides a historical analysis of various agricultural practices that originated in Africa that migrated to the Americas to meet the subsistence needs of enslaved Africans in the Americas during slavery. The continuation and assimilation to certain agroecological practices for sustenance and labor production during peak of slavery in Brazil is characterized by cash crops, such as sugar and coffee.

Northeastern Brazil witnessed a series of economic cycles following the arrival of Portuguese merchants and settlers in the early sixteenth century. Extraction of the dye-wood pau brasil (*Casalpinia echinata* Lam.) and piassava palm (*Attalea funifera* Mart.) was followed quickly by the exponential spread of sugarcane plantations and, later, gold-mining operations in the interior state of Minas Gerais. During the subsequent three centuries, over 10% of the total African slave population that would be unloaded in the Americas was transported to the captaincy and later state of Bahia, Brazil. Although these captive laborers arrived from various point in sub-Saharan Africa, the provenance of over 70% during the final decades of the Brazilian slave cycle was the Yoruba, Ewe, and Fon peoples of Bight of Benin. Counted among the many thousand of late arrivals were captive priests and religious leaders, important potential sources of traditional West African medical and magical traditional knowledge, sold into servitude from their homelands during the Yoruba wars” (Voeks 2013).

At little surprise, the African botanical provenance of Afro descendants does not receive adequate academic attention, which reflects a need for it to be re-centered in historical, anthropological, and ethnobiological scholarship. Traditionally, ethnobotanists focus their research on indigenous people who are considered “environmentally conscious stewards of ancient biological wisdom, transmitted vertically as ossified oral text from generation to generation” (Voeks, 2013). Under the notion that indigenous groups are hosts of much rich botanical knowledge and experience, scholars until recently seldom consider nonnatives to be generators of this knowledge. Voeks (2013) notes that little academic attention focuses on the biocultural relationships between people of the African diaspora and the flora of their “immigrant landscapes”, being deemed as unworthy of academic investigation. Another focus in ethnobotanical provenance studies is the role of Europeans in the transcontinental dispersal of plant species via the “Columbian Exchange”, even though plant migration occurred in the millennia prior to European expansion (Carney, 2003). Considering how Indigenous, African, and European cultures have shaped cultural practices and identities in Brazil is to also highlight how these elements have shaped Afro Brazilian identity and ideas of creolization and synchronism. Instead of focusing on the dichotomy of cultural retention versus loss, this chapter speaks to the power, creativity, and agency of discussing experiences, and events of the past. Scholars like Whitten and Torres note “the discourses about past practices may be taken as a model of cultural continuity and a model for transformations in present ideology and cosmology” (1998). Therefore, addressing black or indigenous historical dynamics reveal other significant troupes outside of the dominant inscription regarding “purity” of ethnic and cultural origins in African and Indigenous history in the New World. So, I argue that

the theory of creolization can be used as a mechanism to underscore important ethnobotanical advancements and achievements assumed by adherents of Candomblé and to highlight the historical experienced Afro descendants encountered and survived in order to establish, retain, and maintain their magio-religious traditions and relationships to the earth.

Ethnobotany: Approaches, Methods, Applications, and Limitations

Ethnobotany methods can be applied to understand the various contexts in which African subsistence, medical, and culture practices were sustained and transferred across the Atlantic. Ethnobotany is the study of the interrelationships between people and plants and an interdisciplinary field that analyzes the interactions between societies, people and their local ecology. Environmental historian, Alfred Crosby, uses the phrase *Columbian Exchange* to refer to the overseas expansion that promoted the exchange of plant and animal species (Voeks, 2013; Carney, 2013). After the so-called Age of Discovery, economic botany, the forebear of ethnobotany, was derived from European colonial expansion as it established many historical and scientific traditions based on the interests of colonial industries seeking to exploit natural resources, such as precious metals, significant plant medicines, and even people for their labor. Once they encountered spices, like cinnamon, black pepper, vanilla, cinchona, and turmeric, they recognized their potential for trade, flavor, and medicine, thus feeding the drive of colonial entities (Voeks and Rashford, 2013). Over time, the international spread of other botanical species changed the demography and daily food practices and patterns in Africa, Oceania, Asia, and the Americas. In pursuit of exploration and expansion, many natural ecosystems, viable food production systems were destroyed along with massive genocide

of Amerindians and the kidnapping and enslavement of millions of indigenous Africans (Voeks and Rashford, 2013).

Cotton (1996, pp 64-65) outlines three main approaches to the study of traditional botanical knowledge: the utilitarian approach collects information about how plants are used and managed, assuming that plants are used largely due to their objective characteristics, such as physiology, anatomy, and color. This approach fails to recognize that different cultures have diverse perceptions and relationships to the natural world which significantly influences how plants may be used. The cognitive/cultural approach studies cultural symbolism and social structure to understand the ways in which different plants are interpreted by an individual or community. The ecological perspective considers how selection methods for plant usage can affect the local environment.

African Diasporic use of Plants as Medicine

The harsh conditions of the Middle Passage and the demands of slavery heavily affected mortality rates and the selection process of enslaved Africans; slave owners preferred African from regions who were physically and technologically apt to carry out the captive labor in Brazil that they wanted. Entering a legacy of servitude because they were chosen for their prowess in horticulture, husbandry, and physical aptitude, enslaved Africans upheld skills in identifying and recognizing indigenous plants for their sustenance and medicinal value (Carney and Rosonoff 2009). The sheer volume of people transported to the Americas originating from Senegal and the Gambia, the Bight of Benin, the Bight of Biafra, West Central Africa, and Mozambique, greatly shifted the cultural demographics in Brazil. In many ways, it is abundantly apparent that African cultures and lifeways have an indelible imprint on the development of the Americas.

Existing historical accounts of African diasporic traditional plant use of the African botanical legacy highlight the use of this cultural knowledge to obstruct hegemonic powers. To this point, their expertise is even mentioned in how “Portuguese slave ship captains hired African healers as nurses and surgeons to treat the captives” (Carney, 2003). Throughout the diaspora, enslaved medical practitioners—who are also referred to as root doctors, root workers, conjurers, medicine people, nurses, and midwives—relied upon pharmacopoeias of roots and herbs and occasionally, spirit possession, to treat medical problems. Many of these healing traditions using African plants are important in the liturgical practices of other “syncretic” religio-spiritual practices, including Haitian vodou, Brazilian Candomblé, Cuban Lucumí, and Jamaica Myal, derived from Nigerian Obeah.

Plants like the kola nut (*Cola acuminata*) is referenced as having many medicinal properties, such as being a stimulant and an aid for thirst, and cultural uses; it was documented to be valued by Muslim slaves, used as a beverage in Belize, and consumed as an ingredient in medical tonic in the U.S. (Carney 2003). Many plant species native and non-native to the New World, Africa, and Asia make up the botanical legacy of the African diaspora as they are historically accounted for their functionality as medicine and tools against spiritual warfare and illness. Tracing the African botanical legacy that thrives in Brazil attempts to create a framework to analyze and to discuss the diverse circumstances and values that inform medicinal plant use, such as the protection of one’s personal or collective agency as an act of resistance. This section’s examination of the plants of the African botanical legacy of the African diaspora shifts the focus from the European role in transatlantic plant dispersal to that of enslaved Africans in the Black

Atlantic, including the circum-Caribbean and Latin American countries. The ethnobotanical knowledge of enslaved Africans in the New World laid the foundation for rich traditional healing systems that are still practiced and safeguarded today as evidenced by the botanical legacies of Candomblé in Brazil.

Geographic and Ecological History of Africa and Brazil

In considering the geological and ecological composition of Brazil and the tropics of West-Central Africa, it is necessary to weigh the fact that millions of years ago, the “hump” of Brazil’s eastern coast used to join at the mouth of the Gulf of Guinea when the geographic composition of the world was known as “Pangea” (Conniff and Davis, 1994). The exportation of enslaved Africans across the Atlantic eventually created a bridge that linked the African and Brazilian flora once again, leading up to the creation of the African botanical heritage. Voeks (2018) points out some prominent features regarding “plant diffusion”, or the distribution and movement of flora, and plant traditions as a simultaneous consequence of the transatlantic slave trade. Moreover, some specimen managed to independently float across the Atlantic and land on the shores of the New World and *vice versa*, some even prior to the transatlantic slave trade (Carney, 2003). For example, before Europeans began enslaving Africans in the fifteenth century, plants were exchanged via maritime and overland routes between Africa and Asia. Most enslaved Africans, approximately more than 90%, were originally from tropical landscapes, such as savannas, rainforests, and wetlands, and were relocated to very similar ecological landscapes in Latin America. So, within this “tropical-to-tropical enterprise”, enslaved Africans found stark familiarity the New World climate, soils, and vegetation structure (Voeks 2018). Arguably so, this integration and adaptation process

was not one that should be considered under the guise of ease, rather one considered under survival and necessity. Enslaved Africans in Brazil continued to face many atrocities, yet they realized the tropical and subtropical environments that they were forced into resembled those they were forced to leave. They found environments suitable for growing foods—such as yams, plantains, millet, sorghum, rice, and beans—that are profoundly familiar to their homelands (Carney and Rosomoff, 2009).

Enslaved Africans developed strategies to access plants necessary for their religious practices, protection, and overall well-being, thus new system of botanical meaning developed in both Africa and Brazil, transforming nature into culture (Barros, 2011). In other words, “Africa’s botanical legacy traveled with its peoples and improved subsistence of millions across vast intercontinental trading networks” (Carney and Rosomoff, 2009). For example, prominent plants from the African continent, such as corn, white pine nut, sweet potato, and tobacco were introduced to Brazil (Barros, 2011). The removal of African persons and flora drastically transformed intercontinental networks of subsistence in the Americas, Asia, Africa, and Europe in which “Many of the plant introductions to tropical America are known in colonial languages by their African vernacular names. This draws attention to enslaved African who initiated their cultivation to the sites in plantation societies where they established them” (Carney 2013). For example, the kola nut, castor bean, palm oil, okra, and variations of fruit trees, such as tamarind, jackfruit, and others, that originated in Asia and later integrated into the African flora and foodways in Brazil. Carney provides a detailed account of the cultural and ecological significance of foodways that also highlights the rich African traditions and continuities in Brazil:

A regional favorite of Maranhão, Brazil, is *arroz de cuxá* (rice with sorrel—the loan word *cuxá* deriving from West Africa’s rice-growing Mandinka, who still cultivate and make several food preparations with sorrel, *Hibiscus sabdariffa*, which evolved among the local rice plantations whose slave populations included people from Senegambia and Guinea-Bissau). Until recently, Maranhão led Brazil in rice production by state, mostly by its mixed-race smallholders. In this former rice-growing area, *quilombo* descendants of runaway slaves narrate a history of rice beginnings. They attribute the crop’s introduction to an enslaved woman who placed some rice grains in her hair as she disembarked the slave ship. Slave-ship captains often filled their stories with less-expensive unhusked grain from African rice-producing societies. Significantly, unmilled grain left from a slave voyage could have served as seed for planting (Carney 2013).

Rice, a staple in Brazilian cuisine, is just one of the many crops that offers a rich historical narrative about its ancestral uses before, during, and after the transatlantic voyage. Nonetheless, “for whoever survived the Atlantic crossing would have been greeted in Brazil and other colonies and possessions with a considerable list of Africa’s most useful species, including those often used in medicine and magic” (Voeks 2018). The process of finding familiarity in strange, unfamiliarity is arguably an example of creolization in motion that influenced the creation of the botanical legacy. Voeks argues that in “immigrant ethnobotany”, or non-native ethnobotany, people undergo an acculturation process when they are exposed to new cultures and their existing knowledge of traditional healing flora and associated traditions becomes more expansive rather than condenses. He suggests that in case of African forced immigrants in Brazil, “they developed over time a rich and highly creolized plant pharmacopoeia, some via chance, others via intentional assimilation” (Voeks, 2018). The botanical legacy of Afro descendants in Brazil is one that incorporates a myriad of plants from various socio-cultural contexts. So instead of accepting the idea that African forced immigrants

“intentionally assimilated” to use certain plants, I think that they renegotiated how they interacted with plants independent of this creolization process.

Creolization and Adaptation of Land and Values

This ethnic intermixture and contact of Amerindian biocultural relations, African, Portuguese, Italian, German, and Japanese, created an inevitable sequence of cultural syncretism and creolization of beliefs and practices. The Bantu Africans who arrived from the ports of Cabinda, Luanda, Benguela, and Mozambique, and the native Amerindians found commonplace in their perspectives on Nature, environment, and ancestral veneration (Lopes, 2008). The geographic differences between the African and Brazilian landscapes presented a challenge for ecological assimilation for enslaved Africans. Learning and adapting to their new landscape and ecological surroundings was not only necessary for their survival, but also for the continuation of their agricultural, spiritual, and healing practices.

Some cultural anthropologists use ideas of creolization as tool to measure cultural continuities through language, objects, and performance. Abrahams suggests that “Creolization invokes a cultural, social, political, and artistic imaginary with echoes of home or place of origin, a registering of a historical coming together resulting from the dispersion and relocation of peoples” (2011). Creolization is often described by scholars as a dynamic process of blending and intermingling that manifests in various forms but are most easily identified in cultural practices, such as musical techniques, performance stylings, and linguistic patterns. Scholars, like folklorists, ethnomusicologists, and cultural anthropologists, utilize this concept to underline observable cultural continuities usually in communities that have experienced some notable historio-cultural phenomenon

or experience which has influenced their values and lived experiences. Scholarship on cultural continuities in the African diaspora in the Black Atlantic, as demonstrated through studies of religious ceremonies and performance, often highlights interesting points of intersections of sociocultural and historical events.

Confronting the idea of creolization as a dynamic process of exchange between groups also requires that one analyzes the historic pretenses that promoted and incited these interactions. In doing so honors the legacies and histories of those who sustained inconceivable amounts of hardship, death, and survival. The application of creolization as an epistemology to examine and explain notable commingling between unlikely groups should not ignore the circumstances that led to their interactivity. These circumstances usually point to structures of power and domination, such as conquest and enslavement, as well as a subsequent process of liberation and resistance. Speaking to power and liberation, the relationship between the dominated and oppressed is dynamic and volatile. Whitten and Torres explain that “while hegemony may come into being, it never lasts, for people are conscious actors attuned to their life situations” (Whitten and Torres, 1998). Speaking to the process of creolization as one that involves a point of intersection between foreign groups, the interactions between European colonizers, enslaved Africans, and Indigenous natives in the Americas created a society in which agricultural and botanical practices were contested, exchanged, adapted, and negotiated. The process of creolization, however, should also underline the implications of these exchanges that are associated with the consequences of colonial hegemony and displacement, at the same time, articulate ideas of survival and power. Here I argue how the use of land and natural resources in the tradition of Brazilian Candomblé typifies how the process of

creolization points to a legacy of resilience and survival rather than one of ideological syncretism.

Using “creolization” or “syncretism” as blanket terms to describe any and all forms of cultural blending and interaction discredits its ability to effectively highlight the stories and experiences of historically disenfranchised groups. Mindful regard should be upheld and acknowledged for the communities in consideration as to maintain a wholistic approach in its methodology and application. The ethnobotanical, magio-religious, and subsistence practices within the Yoruba-based cosmology of Candomblé in Brazil is an abstract exemplar of creolization taking place under inauspicious, adversity-filled space and time. Given this, traditional ecological knowledge and spiritual practices within Candomblé reflect a long-standing African heritage, botanical legacy, and tradition of resistance and resilience throughout the Brazilian African diaspora. So, the historical events that usually lead to the blending and mixing of creolization usually involves a form of displacement, reinvention, and adaptation as a means of survival. Africans in the Americas adapted not out of choice, but out of necessity, resistance, and survival, and successfully managed to uphold their medicinal and spiritual traditions, subsequently creating a botanical legacy that distinctly points to their African heritage, cultural values, and historical experiences. I place emphasis on the creolization process of Candomblé and the traditions of Candomblé to frame the various cultural origins that influence the traditions but to also to critique the limitations of this measurement tool.

Ethnobotanical research centering the use of plants in Candomblé and other religious groups usually points to their medicinal value and scientific classifications. So, the question stands: if these traditions and principles stood in Africa, how did enslaved

Africans brought to Brazil maintain their religious botanical relationships in the vastly different ecological landscape? This a question of assimilation and adaptation as a result of a dark historic phenomenon involving the arrival enslaved Africans to the Americas and the drastically altered the ecological and cultural landscapes, especially as Africans and their descendants began to outnumber the other ethnic demographics. The geographic differences between the African and Brazilian landscapes presented a challenge for ecological assimilation for enslaved Africans. Learning and adapting to their new landscape and ecological surroundings was not only necessary for their survival, but also for the continuation of their agricultural, spiritual, and healing practices.

Ethnobotany and the Traditions of Candomblé

Two million enslaved Africans were brought to Brazil over the course of three hundred years and were transplanted to the northeastern region of Brazil. Their ethnic and cultural origins, which are from present-day West Central African countries, like Nigeria and, Benin, informed their relationships with the land, plants, and animals (Voeks, 1997). Brazil, where more than half of the population identifies as being of African descent, has a complex history of enslavement and racial identity politics as reflected in Brazilian race relations, expression of cultural forms, and social structure. Portuguese colonists enslaved diverse groups of indigenous Africans and brought them to the developing Brazilian colony, which resulted in the various African-derived religious forms that survived into the present day. Historian Rachel Harding (2000) expounds upon the African diasporic ethnic composition particularly in Bahia, Brazil:

Most of the Africans arriving in Bahia in the nineteenth century, then, were from ethnic and lineage groups which predominated along the coast of the Bight of Benin and farther inland. Principal among these were Jejes from old Dahomey (present-day Togo and Benin) and the eastern regions of Ghana; and Hausas,

Tapas (Nupes), and especially Yorubas from what is now Nigeria and eastern Benin. The Yorubas, called *Nagôs* in Bahia, shared a language, a culture, and a ritual tradition linking them all to an original ancestral homeland in the kingdom of Ife. Although some Yorubas in Bahia were Muslim, most belonged to the *orixá*-based religious tradition which served the important role in both Africa and Brazil of establishing ritual connections among the various sub-ethnic division within the larger group.

One important concept of their daily lives and spiritual practice was their relation to plants and animals as healing forces. As unlikely as it was, due to the varied locations and spiritual traditions, a cohesive Afro-Diasporic religion, Candomblé, was born within the inevitable intermixing of African, European, and Indigenous traditions (Voeks, 1997). Candomblé, is a religion with many spiritual forces, such as *nkisis*, *voduns*, *orixás*, and *caboclos* (Amerindian spirits) who are to be honored for their work in the maintenance of daily equilibrium and for the role that they play in our spiritual and material lives. Candomblé is historically regarded as an “adaptive African faith” in Brazil as it is an Afro-Diasporic religious and community-centered tradition that was born in Brazil within the enclaves of enslaved Africans (Coffin and Davis, 1994). One of the most important aspects of this religion is the observance of elemental forces as well as plants and animals for self-care, protection, healing, and worship. The complex rituals and mysticism of Candomblé, such as the beliefs, symbolisms, and specific practices are preserved mainly by oral traditions as “such a cosmological explanation of the world, life and death helps to frame the experience of suffering, giving it meaning, an explanation and a possibility of ritual action” (Mato et al., 2011). The botanica of Candomblé of the Yoruba (*Nagô*) cosmology plays a significant role in how people within Candomblé relate and interact with natural elements. Despite the unbearably oppressive and violent system that was chattel slavery of

Brazil, Africans in Brazil were determined to resist domination by preserving their ancestral practices, knowledge, and religions.

The fact that many botanical elements of Candomblé are, in fact, native to Brazil, existing without a similar African equivalent supports the idea that the process of creolization in Brazil for enslaved Africans of Yoruba belief interacted with the land, Indigenous Americans, and European colonizers in a way that influenced what flora was identified and incorporated into their religious network. Barros notes that the plants undergoing trade and geographic transition were primarily for “meeting the needs of commercial interest of the colonizers in Brazil, yet also fulfilled the needs of the African contingent installed here, as well as the adaptation of certain species that became spontaneous in the new habitat” (2011). It is documented that several New World species, like sesame, tamarind, yams, black-eyed peas, African palm oil, watermelon, bitter melon, and the African guinea fowl are used in [religious] offerings (Carney and Rosomoff, 2009). The pharmacopoeia of sacred foods and leaves are instrumental in serving several functions in Candomblé. For example, the African seed, kola nut (*Cola acuminata*) and common name in Portuguese, *noz-de-cola* is important to this legacy. 40 thousand seeds were sent to Brazil from West Africa in 1862 and they were exchanged between Brazilian merchants and Africans in Brazil. Voeks (2018) notes that kola exports served the needs and wants of former slaves who purchased their freedom, like José Francisco dos Santos who eventually established a successful enterprise selling slaves and kola nuts to the northeastern coast of Bahia. The kola nut is mostly used in divination sessions and medicinal preparations, and still considered a “primordial” continuity of the black religious perspective (Barros, 2011). Today kola nut, or commonly known by its

Bantu name *mamona*, is regarded amongst the personal pharmacopoeia of *orixá* Omulu (Obaluaye), the guardian of diseases and cures (Voeks, 2013). This sub-Saharan African native plant is used to treat skin disorders, ear infections, sexually transmitted diseases, joint pain, gastrointestinal problems, and parasitic worms (Carney, 2013). Historian Judith Carney (2013) also reports how kola nut, was an African medicinal keen for its ability to preserve drinking water and notes how slave ship captains adapted the practice during transatlantic voyages. The castor bean plant (*R. communis*), also known by Europeans as “Palma Christi”, or the hand of Christ, also has a botanical history in Africa, Asia, and South America, has been known for its medicinal properties for centuries (Voeks 2013). Another native to sub-Saharan Africa, the castor bean plant served as a remedy for many ailments caused by the brutality of chattel slavery as it was used as a potent laxative, treatment for skin ailments, headlice, and even as lamp oil and a hair tonic. In the article, “Seeds of Memory: Botanical Legacies of the African Diaspora” (2013), Carney notes how the castor symbolizes an important part of a family’s African heritage and culture:

In Minas Gerais, one elderly *quilombo* leader grows the castor plant in his kitchen garden for lamp oil to commemorate his ancestors. João Ribeiro recounts the boyhood stories his great grandparents told him of the horrors of the Middle Passage crossing from Angola. He lights the castor-oil lamp when offering devotional prayers to the family’s protective saint. In the state of Maranhão, medicinal castor is frequently encountered in *quilombos*.

The botanical legacy is also evident in the use of African oil palm (*E. guineensis*) as a cooking oil used in preparing *ebó* (offering) to *orixá* Exu as well as traditional meals dedicated to other *orixás* or for general consumption. Okra (*Abelmoschus esculentus*), is referred by its Bantu name “quiabo” is a sacred food of *orixás* Xangô, Iansã, and Ibeji (Voeks, 2013). The spiritual relevance of many of these plant species is carried

throughout the use of their African names and utilities which speak to the different circumstances that charged these plants to migrate across the Atlantic and onto the altars, dinner plates, and other sacred spaces and places of many people today.

Early scholars studied creolization from a linguistic purview, which analyzed language formation and linguistic “continuities” and divergences that are closely tied a *lingua franca* and a derived, “origin” language. Linguistically, the retention of African vernacular names is evidence of African presence and influence on agricultural practices in colonial Brazil. So, the names and uses of vegetation and subsistence practices in the Americas reflect both Indigenous and African presence and influence; this phenomenon is most evident in ethnobotanical practices of Brazilian Candomblé. Where classification and knowledge of species is concerned, these components function as “part of the cultural context of a particular group whose cognitive system is being investigated, being an intrinsic part of a worldview, a way of knowing, experimenting, classifying, organizing and relating to the natural and social world” (Barros, 2011). The way that systems of knowledge are organized also draws attention to how African names, such as *banana*, *dendê*, and *quiabo* (banana, palm oil, and okra in English, respectively) from Kimbundu regions were retained and adapted by European colonial language (Carney, 2013). South Central African Bantu cultural influence in Brazil is significant and widespread as most contemporary Brazilian-Portuguese terms denoting Afro-Brazilian religions, dance, and communal forms, such as *samba*, *batuque*, *quilombo*, *calundu*, etc., are of Bantu origin (Harding, 2000). Before the word “Candomblé” was used to refer to religious ceremony, it was used to signify black dance, music, and instruments, particularly percussion. “Candombe,” was the name of a common dance on coffee plantations.

Moreover, the Bantu word “kandombile” also means “prayer.” Hence, the etymology of Candomblé suggests devotional or prayer, most likely through song, music, and dance.

The transatlantic enterprise displaced millions of Africans culturally and geographically, subsequently this massive dispersal and displacement of people resulted in various manifestations of technological advancements and ecological shifts. Therefore, creolization, or renegotiation and integration, through relationship to land is exhibited in traditional ecological knowledge and praxis in Brazilian Candomblé. Candomblé is celebrated through the reverence of nature, homage to ancestral heritage, and a pantheon of African deity as it is a traditional religious cosmology that divides the two realms into the natural and material world, *Aiye* (Yoruba for “Earth), and the spiritual realm, *Olorun/Orun*, (Heaven), as the cosmology of Candomblé emphasizes the systematic differences yet the complex nuances of the interrelations between the material world and the spiritual. Candomblé, particularly of the *Ketu*, or Yoruba tradition, uses land resources, such as sacred plants and animals to facilitate spiritual connections and healing through offerings by sacrificing goats and chickens for orations, spiritual baths, and food preparations. Traditional healing in the *terreiro* mainly involves the use of sacred plant medicine to maintain the life force, *axé*.

The process of maintaining and cultivating *axé* is multifaceted and requires specific offerings as “*Axé* emanates from various sources, but especially from the blood of sacrificial animals, such as goats, chickens, and doves, and the blood of plants...the white latex, the oil, and the clear liquids emanating from their leaves” (Voeks 1997, p. 189). There is important instruction when it comes to how the leaves are collected, prepared, and administered provided that sacred plants are used in virtually every

ceremony, ritual, and celebration, such the *ebó* (offering), which utilize herbs and leaves for baths, blessings, drinks, and cleanses of the body and spirit. Moreover, the connection between adherents of Candomblé and land resources is one that is important in facilitating connections between *Orun* and *Aiye* and cultivating the vital, dynamic life force of *axé* that inhabits all beings, including plants, through a dynamic and complex process. The various yet ethnic-specific rituals promote holistic well-being in both natural and supernatural realms in its philosophical intersection of balance and wellness. In the Yoruba-based tradition of Candomblé, the philosophy of healing and wellbeing are based in balance between the natural and supernatural worlds through connecting with the Earth's natural resources. One of the major conduits of this system of equilibrium are the pantheon of African deity, that are known as the *Orixá*. Offerings and ceremonies require these natural elements of *Aiye* to connect to *Orun* in order to restore balance between them--"The help of the orixás demarcates an exchange system and reciprocity between men and deities, in which religion plays the role of mediator of the sick to achieve healing. These means are linked to sacrifices, jobs or donations to the orixá that will perform the cure" (Mato et al 2011). The *Orixá*, are energetic forces that have archetypical traits--some people associate the *Orixá* with human propensities--each associated with colors, numbers, and sacred plants called, *ewe*. In the Yoruba tradition, Olodumare is the Supreme Being, creator of all things. Most consider *Olórun* inaccessible by humans. Therefore, the pantheon of *Orixás* in Yoruba culture, such as Exu, Oxum, Yemanjá, Xangô, Oxalá, Omolu, Ogun, Ossâim, Iansã, Oxumarê, Oxossi, and Iroko make up the principle spiritual entities and serve as earthly liaisons. Each *orixá* is associated with notable characteristics and energies while also embodying the four

natural elements: earth, wind, fire, water, as well as energetic forces and natural elements, such as storms, oceans, rivers, rainbows, snakes and forests. For example, Exu is popularly known as the “trickster” orixá but also as the *mesengeiro*, or messenger, who plays an important role in the healing process as he functions as one of the great communicators between *Orun* and *Aiye*. Exu must always be acknowledged before any other entity or orixá is acknowledged in different rituals and ceremonies, especially when an *iyalorixá* or *babalorixá* seeks to understand an ailment or answer a practitioner’s questions during a divination or healing session. The forest, home to the warrior orixás, like Oxossi, Ossâim, and Ogum, is considered sacred as well given that resources of the forest facilitate the dynamic and reciprocal aspect of human interaction with the spirit world. Some of the fundamental doctrines of Candomblé encourage its adherents to make connections with nature and charge them to act as Earth’s stewards. The natural elements play fundamental roles in Candomblé as they are used in divination and healing practices. Water is a conduit for natural and spiritual manifestations, necessary for all forms of life, such as the growth of plants, agriculture, cleaning, cooking, spiritual baths and more. Fire and air cleanse the air and associated with drive and determination and the earth is abundant with resources that are used for all forms of subsistence.

Candomblé is rooted in communal support and wellness. *Terreiros*, temples, are the physical spaces where people gather for rituals, community events, and ceremonies; they symbolize freedom and possibility as they provide the space for healing. The *iyalorixas* and *babalawos*, are priests and priestesses in Candomblé are some of the main beholders of this traditional knowledge ecological as well as upheld and carried out through these spiritual leaders. They facilitate healing through carefully and wisely

prescribed treatments, such as herbal baths, divination sessions, animal sacrifices, and ceremonies. For example, the *jogo de búzios* (game of cowrie shells), that also goes by the Yoruba names *dilogun*, *dologun*, or *erindilogun*, is a specific form of divination practice central to the healing process in Candomblé as the process helps to relegate messages between the moral and supernatural realms, or rather humans and the *orixas* (Neto, 2012). According to Pai J. de Ogum, Caruaru, terreiro of the Keto Nation, “The function of the búzios in Candomblé is the same function in medicine that would use an exam or an ultrasound. For everything you consult the *búzios*. The doctor asks an exam for everything, he will consult everything, to see how the disease is, and what it is and what it isn’t” (Neto, 2012). They are employed during divination sessions to foresee the future or answer the questions of the one seeking guidance or healing. It is a way for the person receiving consultation to receive a diagnose of an infirmity, many of which are spiritual issues that present in physical form—“The care offered by the terreiros varies from according to the reasons that triggered the affliction, with a constant allusion to the difference between spiritual causes and material or physical causes” (Mato et al., 2011). Within the healing tradition, the *ialorixá* or *babalorixá* is the leader of the religious community who is responsible for protecting and transmitting the traditions of the Candomblé household as they are trained for many years, sometimes starting at a very young age, before assuming the position of spiritual leader, and must spend a considerable amount of time working, performing service, and oftentimes living within the Candomblé *terreiro*. Once they have assumed leadership, they are tasked with exercising their knowledge and wisdom of herbal healing modalities to serve and to facilitate healing their community, especially in the *terreiro*, by way of communicating

with ancestral entities, and facilitating spiritual healing for their *filhos* and *filhas* (godsons and goddaughters) of Candomblé. This wisdom has transcended time and survived as part of the fundamental knowledge and praxis of Candomblé (Voeks, 1997). Though there are several different sects, or nations, of Candomblé with their own ways of celebrating and cultivating *axé*, they share a fundamental healing praxis through providing divination sessions with *jogo de buzios*, advice, meals, and spiritual guidance, protection, and healing. In Yoruba-based traditions in Brazil, the therapeutic process involves active listening, attentional care and community involvement (Braga, 2018).

Ethnobotany of Candomblé

Tracing the African botanical legacy in Brazil, there are several factors that influenced which plants were used, and how the plants arrived in Brazil and African coasts. First, though tragic as it may be that enslaved Africans were often worked so brutally that their life expectancy at birth hovered around 19 years old, there was a constant importation of enslaved Africans which encouraged a constant exchange and contact between the two continents (Hauser, 2011). From an historical ecology standpoint, "...the vast majority of enslaved people, probably over 90% were forcibly removed from one tropical landscape, especially rainforest, seasonal forest, savannas, and wetlands, and relocated to another, mostly in Latin America" (Voeks, 1997). With the tropical landscape, Africans in Brazil utilized the land, especially for spiritual purposes, with much proficiency due to its ecological familiarity and assigned value to the plants that were unfamiliar.

The New World's soil composition, climate, and vegetation operated as the agricultural foundation for the establishment of the botanical legacy for Africans in

Brazil. Their relationship with land resources operated based on their understandings of the earth in both places. Given that Brazil hosts a grand cultural and ecological diversity due to its historical legacy, the landscape can be traced to both “New World” and “Old World” trends and traditions. Voeks (2018) notes how slave owners valued the economic profitability of importing “fresh hands” versus the maintenance of upholding a healthy population of slaves, thus Brazil’s captive labor force was comprised of people who share cultural heritage. So African culture as “reintroduced” or as a “cultural ‘rescue effect’ that continuously reinvigorated ancestral traditions and values among the enslaved and free black population” (Voeks, 2018). This is significant as it speaks to the movement of people as well as their knowledge and how this knowledge traversed the Atlantic, spread throughout Brazil and continues to serve value in the present.

Brazil’s cultural composition and identity--language to food traditions, music and dance--is unique and identifiably influenced by African heritage. One of the most striking manifestations of African presence, adaptability, and survival is evident in the emergence of the Candomblé and her botanical legacy considering amongst those who were enslaved and brought from Africa were important healers in their respective spiritual or religious traditions, like sacerdotess Domingos Álvares of Dahomey. One major consideration to keep in mind is that though there are significant parallels with the characteristics of the West African region of Yorubaland, Candomblé descended from a mixture of various African religions, from differing climates, and with varied plant healing possibilities.

As colonizers and freed people alike traveled back and forth from Brazil, many of the “weedy plants” or invasive plants were transported—sometimes accidentally—and many survived the Bahian climate. Other plants were purposefully imported by African

freedmen who brought goods or were shipped back to Brazil from those who had the means (Voeks, 1997). Those plants that were not imported or could not survive in the new Brazilian climate, were often replaced by similar plants in the New World. Often these plants that replaced the Old World plants were from the same family or of a similar smell, texture, or taste. Voeks (1997) notes in his study of magic-religious flora, approximately 25% of the plants he documented that were from the Old World, meaning they did not originate from Brazil. Geographically speaking, “the combined effects of continental drift, 100 million years of geographical isolation, pronounced climatic oscillations, and taxonomic divergence add up to a relatively minor shared floristic ancestry between these distant biomes” (Voeks 1997). Hence, South America and Africa share subtle similarities, yet differ in their ecological composition. The similarities and differences point to trends in transcontinental transfers and transformations of the landscape. The history of the botanical interrelationship between West Africa and Brazil is one in which plant species were negotiated and experimented with based on availability and familiarity. This exchange points to profound historical and cultural ties that traversed the Atlantic.

Candomblé and the Natural World

There is a famous Yoruba expression in Brazil: “Ko si ewe, Ko si orisa” which means, “Without the sacred leaves, there is no *orixá*” which speaks to the important role of plants in Candomblé traditions and the importance of Nature. Makota Valdina (Pinto and Harding 2016) outlined the essence of Candomblé in space, identity and time:

And I believe that the first moment, the beginning of African religious expressions in Brazil came in the quilombos (fugitive slave communities). The first forms developed without buildings, without walls, without the physical structures we now have in Candomblé terreiros. But we had nature. We had earth,

water, plants, stones, the animals. We had the essence. We didn't have physical temples. Our temple was the natural world. We have no documents of this, but the first moment of Black freedom in Brazil came as enslaved people escaped from slavery, escaped from the slave quarters and founded quilombos, African maroon communities inside the forest.

Terreiros are usually regarded as political spaces of liberation, communion, and healing.

Makota Valdina's account describes *terreiros* as healing spaces because they were directly immersed in Nature. Candomblé houses follow a strict oral tradition and can often be very secretive traditions, the exact indications vary to a certain extent, however, there are consistent patterns with how the plants are used within the *terreiros*. Within the oral tradition of Candomblé, the practitioners are often taught lessons or taught to understand the spirits through stories and tales of the *orixas* and their adventures on earth. One of those *orixás*, Ossâim or Osaynin, is notably regarded as the *orixá* responsible for safeguarding the sacred leaves and plant medicine. As the tradition collected by Voeks describes, there was a rift between Ossâim and Iansã; Iansã wanted to know what the quiet, reserved Ossâim was doing in his solitude. Usually Ossâim was willing to answer questions but at that moment, Ossâim was working with leaves that required him to be silent. Yet, the impatient and insistent Iansã demanded that he answer all of her questions. In her last effort to make him speak, she decided to shake her skirt and make all of the leaves blow away in the wind. All of Ossâim's leaves began to flow in all directions, eventually landing near other *orixas*. Ossâim enlisted the help of all the other *orixas* to help collect his *ewe*, or sacred leaves, which then made each *orixa* the "owner" of said plant. (Voeks 1997, p. 190). According to these traditions, it is important to ask permission to use the plant and display reverence for using the plant.

Ewe is a network of sacred plants that help cultivate and manifest the power of axé as the sacred leaves have direct accessibility to the healing powers of the deities. Ossâim is the presiding orixá of sacred leaves and plant medicine alchemy who is directly ordained to the knowledge of sacred leaves, however, each orixá has corresponding leaves that matches their archetype (Voeks 1997). This “leaf-deity correspondence” highlights the fundamental essence of ethnomedical healing principles in Candomblé. For example, Exu is the guardian of the crossroads, responsible for absolving roadblocks, and also known as the trickster. Exu is known for his temperament and his leaves reflect his personality: “Many impart a burning sensation when touched, and most are employed for a malevolent purpose...Covered with spines and prickly pubescence, several are painful to the touch” (Voeks 1997). Oxúm is the goddess of love, creativity, and *aguas doces* (sweet waters) so she is honored with *ewe* that are usually sweet smelling and tasting, bright yellow, and appealing to the eye. Here *ewe* is used during ceremonies in her honor and decorate the homes and altar spaces of those who revere Oxúm. The pantheon of orixá is vast as the sacred botanica of Candomblé as they work in tandem to equalize spiritual, material, and organic imbalances in *Orun* and *Aiye*. There are different cosmological patterns that structures that shape how and why plants are used, such as protection of the house and human vessel, herbal baths with multiple herbs generally relating to the *orixas* with which the energetic equilibrium should be restored, infusions where generally one plant or herb that is prepared to be ingested or applied topically for physical healing, and *ebó*, the offerings of plants and foods to the orixas.

There are a few plants that are indispensable within the Candomblé tradition and practice, one of which is the palm frond as it is cut and stripped into strands and hung

outside of the door of every *terreiro* and in the doorways to provide protection. Another plant that is used to protect the physical space of the *terreiro* or a person's home is the green and hearty succulent called *espada de Ogum* (*Sansevieria trifasciata*) meaning "Ogum's Sword" in English. It is thought to break the defenses of those who are not believers or those who enter a space with poor intent. Another plant that is indispensable for protection as well as healing within the *terreiro* is *arruda* (*Ruta graveolens*), or common rue. With its firm and pungent odor, the macho *arruda* plant is often times placed at the entrance of a space after a cleansing and placed behind a practitioner's ear after a cleansing to protect the vessel of the body (Voeks 2018). *Iyalorixas* and *babalorixas* consider physical sickness often as a combination of factors from the material and the spirit world. An *iyalorixa* will usually commence with a "reading" or assessment of the situation using cowrie shells or cards and depending on how the reading plays out as a conversation with the practitioner or recipient of services, the *mãe* or *pãe de santo* will prepare a remedy. Sometimes this remedy is an infusion, or a compress of a certain plant. Generally, if the ailment is thought to be a physical ailment due to material and physical limitations, then the *iyalorixá* will prescribe a tea or an infusion of herbs to calm the physical ailments.

If the *iyalorixa* does a *buzios* reading and the reading shows that the practitioner or seeker has some type of ailment due to spiritual causes, then an herbal bath of various plants is prepared by the *mae de santo*, or those who are called to help within the *terreiro*. He or she often does not reveal exactly what is in the bath, but usually there are seven plants brewed together, and at least one of those plants would correspond to the *orixas* that should be honored by the practitioner. The practitioner is instructed to shower, then

given a spiritual bath within the walls of the Candomblé terreiro. The practitioner will then be bathed in the herbal bath, paying particular attention to the head, hands, back and feet, being careful to cover the entire orifice of the body with the pungent herbs. After the bath is administered, the practitioner is told to not wash off their bodies so that the vibration of the herbs stays with them. Generally, the recipient is either given bottles of the bath to take home, to continue to bathe before going to bed for the next three to seven days. Sometimes the recipient is instructed to go to the market themselves to go buy herbs and prepare their own herbal bath (Verger 2002).

The spiritual baths are generally the first step in a type of cleanse or protective or preventative forcefield. If there is a serious “debt”, as it is often called by spiritual leaders, that is being “collected” from any of the *orixas*, especially Exu, then there is a longer process of offering prepared. These offerings to specific *orixas* or various *orixas* have restrictions as well as directions. The recipient of the treatment must often wear the color white during the entirety of the cleanse. The recipient must also be present during an *ebó*, or an offering, to the *orixas* (Voeks 1996). These are generally lengthy processes where prior to the recipient’s arrival, there is bounty of food and plants, candles, and altars prepared for the *orixa*. There is a specific type of homage related to the personality and characteristics of each *orixá* (Verger, 2002). For example, an *ebó*, or one part of an offering for the diety, Oxúm would be prepared with the black-eyed pea cooked with salt, onions, and garlic. This would be adorned with shrimp and cooked eggs, then offered to Oxúm. A preparation of an *ebó* for Exu, for example, would always involve blood. Generally, one or more cocks are sacrificed in the name of Exu and that blood is spilled out over an amulet within the *terreiro*. The cock is then stuffed with various items,

including other plants and herbs. Depending on the *orixa*, the *ebós* are left in certain habitats. For example, Oxum, the *orixá* of love and creativity, would receive her offerings at the riverbank or near a stream of fresh water. This leads to many tourists who happen upon bowls of offerings and parts of chickens through cities like Salvador.

Conclusion:

Adherents of Candomblé regard the resources of the natural world of *Aiyé* as conduits to connect to the spiritual world of *Orun*, hence the earth and all of her resources—leaves, animals, bodies of water, forests, and the like—are symbolic, yet literal representation of their values, heritage, and history. Aside from the original linguistic applications, using the process of creolization as a tool to unveil and to demystify the hegemonic operatives and expressions of resistance is to acknowledge history bereft by some, yet honored by many. The relationship between people and nature is fundamental in the tradition of Candomblé, one in which natural elements are essential to connecting with the supernatural realm and carrying out duties and responsibilities according to the belief system. This enclave of practices points to the importance of the relationship between Afro descendants and land as a cultural indicator of creolization given their socio-magical/religious symbolism and meaning. Ethnobotanical study has much potential for storytelling and the re-telling of history. The powerful connection between Africans and their descendants profoundly shaped the botanical traditions not only in slave societies, but also ways of relating to Nature and Her natural forces.

The use of Nature in cultivating *axé* is a crucial element to healing and well-being for Afro-Brazilians who adapt the faith systems of Candomblé because the healing process promotes environmental stewardship, community support, and symbiotic

relationships between the natural and spiritual realms. Focusing on these complex interrelationships, the next chapter is an ethnographic account of my experiences in Salvador to explore how some Afro-Brazilian women use plant technology of the African Botanical Legacy.

CHAPTER FOUR: ETHNOGRAPHY AND EXPLORATORY RESEARCH

“Collective black self-recovery takes place when we begin to renew our relationship to the earth, when we remember the way of our ancestors”

--bell hooks (1993)

Shortly after I returned from my first trip to Brazil in August 2019, I began to plan for my return to conduct independent research. I was granted the Tulane Taylor Center Changemaker Award to travel to Brazil at the end of January for five weeks to conduct independent research as well as facilitate movement and meditation classes to engage and to exchange with my international communities in Belém, Para and Salvador, Bahia. My goal was to investigate how perspectives on health and healing are interwoven with African-based spirituality via the use of ancestral medicine of plant technology. While in Salvador during the height of carnaval, I began networking and connecting with many community members who work with medicinal plants as well as people who are deeply connected with the spiritual and religious traditions of Candomblé.

Being led by the exploratory nature of this subject matter, I was able to reconnect with Dr. Conceição and she provided me with video interviews that she previously did to promote the work of Botica RHOL. The videos further outline the main objectives of her cosmetic product line called, IYÁ OMI, that produces hand-crafted soaps, skin cremes, and medicinal syrups. The products are linked to the traditions of the African religious matrix in Brazil, aiming to promote well-being and daily self-care through the therapeutic virtues of plants. The intention behind the work promotes self-care and moments of intentionality in hopes of connecting and prioritizing self-healing and wellness through self-care. Her products are made from medicinal plants, like cinnamon, cloves, and

rosemary, and edible oils, such as shea butter and vegetable oils, that are native to the region. The brand prides itself on utilizing all-natural products, preservatives, and refraining from animal testing. IYÁ OMI is an extension of the work done by Botica RHOL; the plants and other raw materials are grown in agroecological environments in *Quilombos* and *Candomblé terreiros*, traditional community spaces in Brazil, thus supporting the use of the local flora as a way to strengthen the traditional communities that cultivate them. The energetic and spiritual intention behind the work promotes wellness practices linked to prioritizing self-care in small yet significant ways, like touching the skin while applying lotion or moisturizer to the hair. The cosmetic line is a form of wholistic care based on ancestral wisdom, referring to how the plants are cultivated and how the products are made with intention. While harnessing their spiritual properties, the combinations of plants have a physical, physiological and aromatherapeutic effects. For example, one of the soaps, “Iábas” is named after the Yoruba term that describes the divine maternal energies of Osun, Yemonja, and Nanã (Nana Buruku) as this soap is designed to channel the energies of tranquility, fertility, and wisdom. Another soap, “Paz” (Portuguese for peace), made with patchouli, water, and macassá, in the Yoruba worldview channels the tranquil energy of Orisa Oxalá (*Obatala* in Yoruba). The soap “Fortuna” (Portuguese for fortune) is produced with a mixture of plants, like *folha de louro* (*Laurus nobilis*) or bay leaf in English and the African plant, “akoko” (*Newboldia laevis*) which attracts towards prosperity. According to Voeks (2013), akokô is one of the plants that was introduced to Brazil from Sub-Saharan African specifically to fulfill the spiritual needs of Candomblé adherents. IYÁ OMI also produces syrups that help cold symptoms, using medicinal

plants such as *jururemba* (*Solanum paniculatum*), *juá de boi* (*Ziziphus joazeiro*), *folha-de-costa* (*Kalanchoe*), and *sabugueiro* (*Sambucus nigra*) many of which are cataloged in the “cartilha de saberes tradicionais” for their medicinal, therapeutic, and spiritual prosperities. The benefits are holistic in nature as they provide physical and emotional wellness through corporal and spiritual consciousness through the senses, primarily through touch and smell.

While in Salvador, I began networking and connecting with many community members who work with medicinal plants as well as people who are deeply connected with the spiritual and religious traditions of Candomblé. Being led by the exploratory nature of this subject matter while trying to schedule interviews during the height of *carnaval*, I reconnected with Sueli of Botica RHOL and I met a couple of other business owners who also use ancestral medicine as a way to promote health and healing in their communities. I connected with Isis Abena, a doula and healer, of *Hawa Naturais* through Instagram as she promoted her “Sexualidade Sagrada” workshop for women. While registering for the workshop, I asked Isis if she would like to participate in my research by answering a few questions about her work I attended the workshop and Isis facilitated the session to talk about yoni eggs and herbal yoni steams—two ancient healing modalities used to promote women’s reproductive health and to restore emotional, physically, and spiritual balance. Yoni steaming is a cleansing process where women sit or squat over a hot bowl or pot of herbs while being covered with a large skirt or blanket to trap the water vapor from the vessel. The healing is derived from the plant or blend of plants used during the treatment. While speaking to importance of holistic reproductive health in with a biological and spiritual lens, Isis introduced the concept of

“*medicina ancestral*”, or ancestral medicine, a process that involves “calibragem” and “intuição” (calibration and intuition, respectively). Vaporization process of yoni steams is potent, pleasurable, and brings nostalgia. Isis affirms that is a form of “cura autonômia” (self-cure), that is accessible and easy to facilitate in one’s home, as well as an ancient practice for women. The principal recommended herbs are as follows: calendula chamomile, rosemary, roses, lavender, and jasmine. The next day, Isia and I met at one of the local beaches, Praia de Gamboa, to talk about each other’s work and to exchange ideas. We found a spot to settle down and talked about our perspectives on ancestral plant medicine and its relevance to healing our communities. The conversation led us to talk about the inequities that plague our communities, both in Brazil and the U.S., that are caused by energetic imbalances in our respective social structures and the role of Black women in restoring justice to these spaces.

After I spent week in the buzzing urban center of Salvador during the height of carnaval, parading and dancing with different samba *blocos* and decided to take a two-hour catamaran ride to the Island of Morro de São Paulo for a week-long dance intensive. Even though I arrived without any preconceived notions or expectations of the island, I was not expecting my ethnographic research to unfold as it did. When I arrived on the island, wet from the downpour, I experienced yet another wave of culture shock: there were men with colorful t-shirt uniforms pushing wheel-barrows full of tourists’ baggage; most of the people walking on the streets looked much different from the people from the predominantly Black neighborhood where I stayed in the city; there were no cars and barely any moto taxis in the narrow streets that were over saturated with shops and restaurants. After spending thirty minutes trying to find the training site, I arrived ready

to dance. One night after a long day of training outdoors, I decided to join my colleagues at one of the local hostels for an open mic night. Upon arriving, I recognized one of the young women, who appeared to be in her late twenties, who was also participating in the dance intensive, especially since she and I were the only black women attending. Once we made eye-contact, we gave each other a loving embrace, even though this was our first personal encounter. We began talking about life on the island and our dance experiences and soon she told me that she works with plant medicine. I clearly could not hold my excitement, because I felt like I was exactly where I needed to be. Then, I started casually asking her about her work and before I could finish my sentence, she began to take her products out of her purse and display them on the coffee table in front of us, including a magnet with her business, *Medicina da Terra*, or Medicine of the Earth, oils, pomades, a spray, a book called *As plantas do jardim celestial*, or The Plants of the Celestial Garden, and two post cards indicating the ingredients in her hand-crafted products. Her healing and hydrating pomades incorporate beeswax from the local bee species, *uruçu* (*Melipona scutellaris*), along with coconut oil as the base, cocoa butter, and copaiba (*Copaifera langsdorffii*). She also offers a tincture with sage (*Salvia officinalis*) and myrrh with lemon grass (*Cymbopogon citratus*) essential oil. Shortly after, we both returned to the music and communal energy of the open mic. We both wanted to schedule a time to conduct an interview, however we both faced scheduling conflicts.

The next day I returned to the busy, urban life Salvador and coordinated an interview with another woman who works with ancestral medicine. I met the owner of *Pedra da Lua*, a young woman in her early thirties, during the Sacred Sexuality workshop

that Isis Abena of *Hawa Naturais* facilitated and learned that she too creates all-natural soaps, shampoos, lubricants, and bath salts, using plant technology. She invited me to her home in Salvador to conduct the interview and described her work with plant technology to make her soaps and other cosmetic products. When I arrived, we realized that we had already made acquaintance one night in the Historic Center last year during my first trip to Salvador in July of 2019. We recounted that Saturday night when we met: I joined my friend, who hosts me in her home, to spend the evening with her friends—including the woman I met at the workshop--, eating *moela* (smothered chicken gizzards), and enjoying chilled *Devassa* beer. I remembered how we sat at a table outside of a bar on the cobblestones on the incline of the hill and enjoyed one another's company.

The day when we reconnected, we ate a delicious meal of *feijoada* for lunch that her mother prepared. I learned that one part of her journey using plant medicine started when she wanted to find a natural and less expensive alternative dermatological product for her own use then once she began sharing her creations with her community, she began to sell her soaps and offer natural skincare products throughout the country. *Pedra da Lua* cosmetics are currently sold in different stores in Brazil located in Rio Vermelho in Salvador, Santo Antônio, Bahia de Camamu, Pituba, and in Recife. Some of the products are made from rosemary, hibiscus, red roses, coconut oil, babassu oil, and mint essential oil, and shea butter. She described a soap that incorporates myrrh, a plant essence that activates a sense of intuition, along with marigold, a flower which is connected with the concept of the sacred feminine energy. We discussed how everything that *Pedra da Lua* produces is biodegradable, absolving any guilt that one would pollute the skin or environment as means to protect the earth.

We conversed about her views on health and inequity: “For me, health is balance. For me, it's a state of balance in everything. Because if you are not balanced, you are not healthy. Physically, mentally, emotionally ... I think that is the work of herbs; it provides balance, right?” (Crook interview, 2020). Her views on inequity are rooted in the duality of individualism and collectivism: “I think that individualism brings great inequality...we live very individually, [and] think a lot about the individual. When we don't think collectively there is this inequality...We think for ourselves, and unbalance and become uneven.” Expressing these ideas about health and inequity affirmed me and my theoretical framework that shapes my argument about wellness and healing. After the interview, we discussed more facets of my research and the possibilities that lay ahead. She even suggested that I begin to brainstorm ways to extend this project to a multimedia platform, such as a YouTube channel or documentary series, then she started discussing the possibility of creating a cohort of Black women entrepreneurs.

Reflections:

Due to time constraints, I was not able to gather all of the empirical information that I sought regarding specific plants and their uses, but I was able to consult the Instagram accounts and websites of *Hawa Naturais* and *Pedra da Lua* to take a closer look at the products that they offer their clientele. Using this method of digital anthropology and after cataloging some the major components of the products that each business owner uses, I linked my catalog to the studies of Voeks ethnobotanical work: see Appendix 2. What I discovered and continue to uncover in this work is that ancestral medicine, as demonstrated by these four incredible forces, is intuitive, communal, and derived from autonomy, directly corresponding to bell hooks proposal that healing for

Black people is inextricably tied to how they relate to land as working closely with land cultivates empowerment and agency.

A part of this work requires my introspection of my position as Black American women from the United States operating and navigating this ethnography in a predominantly Black city, Salvador. By my personal aesthetic and appearance, I look like a local, however when I speak in Portuguese, it is quite apparent that I am not. When I introduce myself to someone, I usually am questioned about me and my family's ethnic origins; locals assume a range of places from West and Central Africa, the Caribbean, and even other parts of Brazil. After I inform them that I am from the United States, I usually receive one of two follow-up questions: "Why do you speak Portuguese so well?" and/or "Did you vote for Trump?" As uncommon as it seems for Black American women tourists to travel independently to Salvador, it appears to be even more uncommon for Black American tourists to speak Brazilian Portuguese proficiently. This second trip to Salvador revealed to me the asymmetries and congruences of diasporic relationships through my casual and personal interactions with individuals who later became my friends and adopted family. I also learned that plant medicine and the use of herbs transcends imaginary political boundaries as many values surrounding Nature share origin stories. My evolutionary journey learning about medicinal plants stems from understanding that my community suffers from health issues and land adversaries due to historical marginalization and traumas. Traveling to Latin American and the Caribbean countries, like Cuba and Haiti, that are richly known for their African heritage and presence in the dances, music, language, and religion, I realized that plants play a significant role in the expression and manifestation of culture. My attempt to highlight

the use of plants as medicine illuminates deeper histories and experiences shaped by the African botanical legacy, not just in the United States or Brazil, but also in other areas of the region where Afro-descendants have simultaneously renegotiated and reactivated their power through plant technology. These shifts in power are practically and actively demonstrated through the production of these women's merchandise as well as the interactive, community-based services that they offer.

The work of the creators of *IYÁ OMI*, *Hawa Naturais*, *Medicina da Terra*, and *Pedra da Lua* is significant because the intention behind their work is to promote balance and to reverence their ancestral wisdom—central tenants to the Yoruba model of equilibrium. The work calls attention to meaning of healing as it continuous, dynamic, and communal process. It is important to recognize the potency of this ideology: it speaks to interrelationships between communities, Nature, and Spirit—elements that were severed during the transatlantic slave trade as well during the economical enterprise of chattel slavery. The capitalist world system encourages local forms of dominances through interrelated tropes of gender, race, and class, thus favoring the privileged and powerful and exposes to the vulnerable (Sterling, 2010). On my account, I found that existing as a Black individual in Brazil is difficult, not only because blackness signifies being poor, but it also results in subjugation of inhumane treatment. To be an Afro-Brazilian woman also entails existing at a crux of systematic oppression.

To honor the healing modalities that are derived from these traditions by the creation of Afro-Brazilian women is also to acknowledge the violence and traumatic experiences that inform the need for healing. This endeavor is to connect and to interact with the voices and narratives of those who have experienced and continue to experience

marginalization and discrimination at the expense of their health and histories as it is difficult to imagine that Black women could prioritize their self-care practices under the duress of chattel slavery. These women who work intimately with plant technology are offering opportunities to reconnect with the physical self (body) through the therapeutic powers of plants and of the storytelling modalities is the plant medicine-- a resource that our ancestors used and one that we continue to use. In the next chapter, I attempt to provide an epistemological framework that centers on the use of plants of the African botanical legacy as a means to achieve restorative justice and health for the social body.

CHAPTER FIVE: THEORY: Applying Yoruba-based Healing Philosophies to Examine Health and Social Inequalities in Brazil

“When we love the earth, we are able to love ourselves more fully.”

--bell hooks

Introduction

Given that the biomedical model alone does not measure health holistically and Afro descendants face significant health challenges, applying the traditional Yoruba model of equilibrium (YME) can be used as a theoretical framework that exposes social inequities that exist in the current healthcare system. The focal point of this chapter centers the experiences of Afro descendants in Brazil, the health disparities that they face, and theoretical solutions for the future. I argue how cultural values can compensate for these gaps in coverage, reflect experiences that are shaped by identity, and function as a way to challenge institutional violence, and promote health by centering a culturally appropriate framework. The biomedical model is fixated on pathology and heavily reliant on empirical data, which results in linear health assessment for Afro Brazilian populations. Biomedical methods of treatment, curation, and prevention are important to scientific advancement, yet they are reductionist in nature (Szafran et al., 2011). Humans are not just a collection of heterogenous cells or a series of pathologies; instead, they are an embodiment of life and energy. Over time, the limitations of the Western biomedical model have marginalized people who do not conform to these principles nor accept the political definition of health, thus leaving their needs unmet. The Constitution of the World Health Organization (WHO) defines health as “...a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (1946).

Health, however, is also a matter of achieving a holistic sense of soundness, which arguably embraces spiritual wellness as well.

Drawing attention to the experiences and histories of both Indigenous and African descendants in Brazil, two prominent ethnic groups who have their separate and shared collective knowledge on botanica for spiritual, medicinal, and subsistence purposes also share many traumatic experiences due to colonialism and hegemonic pressures and structures beginning in the early 17th century. Over 400 years later, these same communities face significant struggles fighting for land, political representation, and basic human rights, such as housing infrastructure and health care. While enduring racial discrimination and other forms of institutional violence, such as poverty, Indigenous and Afro Brazilian communities still draw from their ancestral pools of knowledge to oppose the violence as silent, yet visible forms of resilience and resistance. Across the world, Indigenous and Afro descendant communities face some the most complex health disparities, poverty, and land exploitation. Due to historical marginalization, oppression and other forms of institutionalized violence, they have been underserved and excluded from mainstream health services. They often do not receive adequate care due to cultural barriers, insufficient attention from health care providers and poor planning on institutional levels. On the other hand, these communities are also recognized for their traditional methods of healing and practices that employ the use of herbs, their intimate relationship connection with Nature and natural resources, and sacred divination practices. Essentially, due to high incidence of cultural incompetency, racial discrimination, and religious insensitivity, the conventional biomedical model alone does sufficiently meet the needs of these communities. Because of the existing dichotomy

between health disparity and the application of traditional healing practices, this chapter offers a much-needed paradigm shift in understanding and analyzing the current health care structure that fails to meet the needs of Afro descendants on various levels. I suggest that this health system undergoes re-evaluation through the lens of the traditional Yoruba-based model of equilibrium to fill in the gaps that these inequities continue to create.

Traditional Yoruba healing philosophies are centered around empowerment and fulfillment by seeking a life of balance and dedication to one's higher self. The Yoruba model of equilibrium (YME) is based on the idea of holistic balance that involves the spiritual world and the material world and all entities that reside in both realms. The YME helps to define and to highlight a moral standard in which to interact with self, community, Nature, and Spirit. Based on tenants of reverence, respect, and justice, YME seeks to highlight the fundamental properties that should be followed in order to achieve a balanced state. As a result, there is a sense of harmony and on the contrary, the opposite result is disease as it the physical manifestation of internal illness.

Referencing the philosophical and cultural tenants of the *Nagô/Ketu* nation of Candomblé where Yoruba philosophies and rituals are most prominently recognized socially and politically, the definition of health and illness depend on the equilibrium between natural and the supernatural realm. Here spiritual leaders assess infirmaries and facilitate the healing process through prayer, the usage of herbs, divination, sacrifices, and other means. Ultimately, their roles generate a sense of community, accountability, and interpersonal connectedness. On the contrary, the biomedical model is not guided by these fundamental principles and does not promote a sense of holism.

Contesting power: structures, identity

As the saying goes, “your health is your wealth” and under careful consideration, this cliché statement holds much weight. At the intersection of poverty and health, people who live in impoverished circumstances usually suffer from the most challenging health conditions due to their vulnerability to disease. Additionally, they experience stressors that are linked to inequality living conditions and struggles to meet their basic needs. The people who make up these low income, impoverished populations are considered ethnic minorities: Indigenous and Afro descendant communities. Furthermore, “...education and health services may not be consistently provided or adequately take into account culturally informed beliefs and practices that are often closely related to ethnic identity in groups who experience high levels of poverty and exclusion” (Waters, 2010). In short, even though there may be services available, the question stands: Are these services adequate for these marginalized groups or meet their basic needs? The concept of health inequities and social inequalities are complex, multidimensional, and requires a systematic approach in order to effectively comprehend how these structures influence health outcomes across various populations.

Health outcomes for the black population in Brazil are contested in political spheres that ask questions of justice and equity in federal, municipal and local policies. Currently, there are leaders are fighting for the human right to health, particularly the leaders of Candomblé. These activism in religious communities influence these struggles within the matrix and in the public spheres. According to the principles of the World Health Organization (1949), health is a human right that should be accessed by everyone but the reality for a majority of the black population, this form of accessibility is not

realized due to the effects of social inequities, the historical legacy of slavery, and institutional violence, such as poverty, racism and discrimination, that afflict the experiences and well-being of Afro descendants in various capacities. Therefore, health injustice is a violation of human rights or in other words, it is a form of social illness in need of recognition.

Health and illness of the physical and social body:

Health in the aforementioned chapters has signified health of the physical body and the elements that influence the physical body's state, such as the environmental factors and lifestyle choices. Braga suggests a "theo-somatic medical practice—a study evaluating the improvement in people's health related to their spiritual evolution" (2018). This approach centers the patient's quality of life and cultural preferences at the forefront, especially given that spirituality informs much about an individual's worldview and lifestyle, if they chose to ascribe to one. This perspective sheds light onto how some people view health, disease, and healing. Similarly, biomedicine should derive from the "...actions and wishes of people, which are answered in a different manner and not through the epidemiological manner of the same knowledge" (Braga 2018). The biomedical system relies on empirical data and does not holistically consider what causes pathology or suffering as it is not precisely or proportionately connected with disease or pain (Freund et al., 2003).

Where conventional medicine fails, some communities, such as Candomblé terreiros, find alternatives to fill in the gaps and use it correspondingly or to completely replace the system all together. Furthermore, "Even if there is clash between science and folk medicine in the temples of African origin religions in Brazil, the two are frequently

seen as being complementary” (Braga 2018). According to Braga, “Generally, pães de santo, after treating the “illnesses of the spirit” and advising on or administrating some type of preparation, refers the followers to a health professional or basic health units” (Braga 2018). This jointed model of treatment and care could potentially make up for the disparities that these communities face. As it pertains to this subject, there is work that needs further exploring.

Healing Through Candomblé: Herbs and Axé

One of the central tenants of Yoruba-based tradition is the concept of *axé*, the vital energetic force that sustains the natural and supernatural realms, as it represents power, strength and energy. As such it is the material and spiritual embodiment of possibility and action; the absence of this energy results in paralysis. Everything encompasses its own quality and level of *axé*, this includes but is not limited to “divinities, humans, plants, animals, or rocks” (Voeks 1997). In the spiritual and religious realm of the West African form, Yoruba, Nature plays a significant role in everyday life. This poetic, interrelated understanding of the world informs views on health, relationships, and life itself that is based on intersectionality and balance, considering not just the tangible features of human existence, but also the supernatural, spiritual realms. In this tradition, preventive medicine is ruled by establishing and maintain a state of equilibrium, or *axé*, with the spiritual universe that exists through natural elements. Praxis, consistency, and reverence are important tools in maintaining this force of *axé* and overall health and well-being. In Candomblé healing occurs in terreiros and it takes place in three dimensions, mental, physical and spiritual health (Silva 2007). Disease manifests as a rupture or imbalance between the natural and supernatural world, because

“Often an experience, understood in the logic of official medicine as disturbance of the physical body and / or mind, are for Afro religions signs or manifestations of gods and goddesses. Examples of this are the cases of initiations due to health problems” (Silva 2007). Additionally, elements such as affection, the sharing and building of knowledge, the effective healing, restoration of ancestral heritage, and the usage herbal curatives constitute African-based religions (Braga 2018). In terms of illness, Silva articulates that people of the *axé*, or adherents of Candomblé, are aware that some infirmaries cannot be treated or cured by doctors “...and therefore do not know the procedures of cure as is the case of the evil eye, broken and thorn fall. In this sense, the wisdom of the terreiros and their therapeutic practices are fundamental to dealing with the suffering of the people and the restoration of health” (2017). In short, some practitioners of Candomblé seek terreiros for healing when conventional medicine fails and uses those failures to conceptualize the disease as one of the spirit and not necessarily one of the flesh. One of the several holistic healing modalities adapted by practitioners of Candomblé include the “...ebó, the the bori, the use of plants, extracts, prayers, potions, the purification of the body and the soul, as well as the advice of the Pais de Santo” or *iyalorixa* or *babalorixa* (Braga 2018). Fundamental to Afro-Brazilian religion is the model of care and attention to health that is focused on improving the quality of life for the community. The equilibrating process can involve ebó (sacrifice), initiations, the use of herbal roots, leaves and flowers, baths, drinks, divination, counseling and more; the main objective is to use these modalities to restore people’s health (Silva 2007). As it stands, terreiros provide the space for healing and *iyalorixa* or *babalorixas* provide the knowledge and wisdom to facilitate it as terreiros symbolize freedom and possibility providing “...alternatives in the practice of

dealing with health and education and can become an important strategic tool for coping with various diseases and for health promotion” (Silva 2007). In Yoruba-based traditions in Brazil, the therapeutic process involves active listening, attentional care and community involvement, all that “... is in line with what is recommended by the World Health Organization” (Silva 2007). Through the integrative worldview, Afro-Brazilian religions “propose a way of dealing with the conflicts and paradoxes of life. Often suffering is due to the difficulty of finding ways to solve the conflict between the desire and the possibilities that life presents” (Silva 2007). The communal support, reverence for elders, acceptance of sexuality, honoring Nature, and celebration of life among other aspects of life are essential entities that sustain the terreiros and participants of Candomblé. These values are important to understand as it pertains to Afro descendants and how their health needs are met and assessed.

Healing Philosophy and Ideology— an alternative approach to explaining and understanding inequity and inequality in the world:

In contemporary healing that integrates biomedicine, public health treatments and spirituality, Braga advises “if these dynamics are not well balanced, they can compromise the well-being of society” (2018). In light of this potential threat, some of the contemporary healing that takes place converges religious affiliation and social activism as a way to heal the social body as well. Mãe Beata de Yemaja and other organizations exemplify this work as she converged her faith and authority to advocate for marginalized groups in Brazil and asserted herself as a healer of social and spiritual ills. She embodied what it means to restore and maintain *axé* through social mobility efforts. These organizations prompt change for Afro Brazilians with a clear foundation based on equity, inclusion and service, thus promote the proper flow of *axé* in the social body.

There is an outstanding social responsibility and accountability for ‘public’ action to secure people’s rights to health. Organizations and other entities that recognize the necessity and the urgency of these issues recognize the breaches in State leadership and policies and offer solutions. Applying the Yoruba model of equilibrium to assess health needs challenges how health disparities are conceptualized; infirmaries are the consequence and manifestation of imbalance. Shifting into this framework to the public health sphere can be used to understand how suffering occurs and manifests in marginalized communities. Health inequities are the result of social imbalance, underrepresentation, and misallocation of resources. In Yoruba philosophy, imbalance, or inequity in this case, manifests in illness. The imbalance and inequity in the health care system results in a social sepsis that spreads and marginalizes people who do not have the resources to fight back. Poverty is the product of an imbalance and people who suffer from its effects usually endure lower health outcomes. From this abstract purview of the Yoruba healing traditions, *iyalorixa* or *babalorixas* are responsible for assessing health needs, diagnosing infirmaries, and facilitating the healing process; health professionals are charged with the same responsibilities. They are also responsible for administering the proper treatments, providing health education, and advocating for their patients. Under the appropriate training and allocation of resources, they could potentially work in conjunction with other healers. According to this model, hospitals would be functionally synonymous to *terreiros*, given that they are physical spaces where people seek healing, counseling, treatment, remedies and guidance.

This approach to understanding the nuances and discrepancies of the current-standing healthcare system is an abstract yet holistic manner that challenges the status

quo and offers a fresh theoretical framework to operate with. The feasibility of this project would undoubtedly undergo scrutiny and critique. Conversely, it would ignite much needed conversation regarding the current health structure and what can be done to either replace or amend it so that it appropriately addresses the needs of those who have been ostracized from mainstream services given that health is cultural and culture is not static.

Conclusion:

Health is a right to all, yet accessibility to quality, main-stream health resources is not guaranteed. As stated by the WHO Constitution, “Governments have a responsibility for the health of their peoples which can be fulfilled only by the provision of adequate health and social measures” (1946). The reductionist nature of the biomedical model approach does not take into account the supernatural or spiritual dimensions of human existence due to the lack of empirically supportive data. In communities that rely on their fundamental understanding of healing as a connection between the natural and supernatural, the traditional biomedical model is not compatible with their beliefs or able to treat them sufficiently. Afro descendants across the diaspora have maintained, restructured and reclaimed traditional healing practices for centuries. How health is evaluated and carried out varies, but this should be a decision based on preference not obligation. This shift in paradigm could potentially motivate and incite changes in healthcare practices, training for professionals in cultural competency, and encourage integrative measures and modalities. Modifications and alternations to current understandings and projections of health could be life changing for many as it holds decision-making intuitions accountable for their decisions . Examining the complexities

of African healing traditions in Latin America and the Caribbean through the scope of anthropological, sociological and historical contexts illuminates the holistic nature of healing in transnational black culture. It highlights the knowledge and responsibilities held by traditional healers, points to the historical factors that explain their prominence in the region and elaborates on how traditional African healing philosophies influence perceptions of health. In doing so, this effort bridges gaps in understanding cultural values and transnational experiences across Afro descendant communities in Latin America and the Caribbean. Understanding health perspectives across Afro descendant communities bridges gaps in perceiving expressions of transnational black culture, history and identity through spiritual healing traditions.

The complex interrelationship between health structures and perspectives on health are tied to historical and lived experiences. Yoruba culture and philosophy that thrives in Brazil is a prime example of the complexity of this interrelationship as it survives in a nation that provides free health care yet suffers from striking health disparities. Alternative medicine via plant technology is regarded, in many cases, as *macumba*, or black magic, a practice of Indigenous peoples. Yes, but Africans who traversed the Atlantic and established their healing legacies in Brazil and many other countries in the Americas keep this medicine alive. The point is that African healing practices that use plant technology are complex and precise as the efficacy of its curative potential not only lies in the superficial understanding of the chemical composition of the plant or concoction. The biological understanding alone is reductionist and does not account for the Spirit of the plant. Healers and those who believe in the power of *Asé*.

CHAPTER 6: CONCLUSION

bell hooks' work speaks to the intersectionality of race, gender, and capitalism while critiquing the ways that they perpetuate hegemonic systems of oppression and domination, thus providing a foundational basis to examine health equity. hook emphasizes the importance of the connection Black people and Nature as this is the crux of liberation and healing. Within this framework, health is the convergence and manifestation of all internal and external elements that can impact one's life. While emphasizing how power shapes health perception, I evaluate how cultural and social-structural factors that influence how the physical and social body, or rather the social collective, is perceived, cared for, targeted, and healed. I draw upon a holistic perspective, centering on the interpenetration of the physical, spiritual, and social to examine aspects of the collective social body, or society, in Brazil.

The sacred plants of Candomblé teach us about long-standing narratives of resistance, continuity, and justice. The spiritual component of ancestral medicine and plant technology is fundamental to this process as the botanical legacy is another demonstration of the healing praxis. Plants, like all living organisms, possess the life force of *axé* and they have life cycles, therefore they are essential in facilitating the healing process. *Ewe* is necessary for many rituals and ceremonies of Candomblé, thus necessary to make connections between the natural world and the spiritual world. I have demonstrated how the Yoruba Model of Equilibrium is used as a theoretical scope to fuel health advocacy groups, such as RENAFRO, as well as an epistemology for the use of plants as part of a cultural continuum. In a world suffering from social, biological and spiritual pathologies, it is necessary to analyze elements of human society, like as racism, diasporic identity, and

hegemony on various levels that also tied to health conversations. The YME is an epistemological model that can be used to access health inequity on a theoretical basis—one in which justice, balance, and wholeness are taken into consideration in everyday life. In the holistic philosophy of healing in Candomblé, imbalance, or in this case, inequality, manifests itself in diseases. Thus, the imbalance and inequality of the public health system in Brazil results in a social practice that disperses cultural knowledge and marginalizes an entire population who does not have adequate social resources for the enjoyment of adequate well-being. Diseases of the social body, the collective entity that perpetuates ideals, actions and values, such as racism and other forms of institutional violence, can be taken care of with the philosophical attention to healing by Candomblé and the leadership of black women.

Gender and ethnicity: Afro Brazilian women at the forefront

The myth of racial democracy and the historio-social structures that are promoted are based on hegemonic and patriarchal ideologies were established by white colonists. Reproduction of slaves and sexual exploitation of slaves perpetuated social and economic control, reinforcing ideals of race and class and subsequently pinned Afro-Brazilian women as second-class citizens destined for her menial, manual labor. On the contrary, Black women are at the forefront of the struggle for human rights in various capacities but are not formally recognized as political leaders. One of the counternarratives to the to the history of disenfranchisement of Black women is the examination of their demonstrations of power and agency through the use of plant technology of the African botanical legacy.

In this investigation, studying the relationship that each of the four business owners of *Hawa Naturais*, *Pedra da Lua*, *IYÁ OMI*, and *Medicina da Terra* have with

ancestral medicine of plant technology has revealed several elements, not just regarding health perspectives: the Botanical Legacy of Africans and Afro descendants is ancestral, intimate, continual, and innovative. Outside of the religious context of Candomblé, there are other cultural medicine practices that employ ancestral healing practices are also explored in this work, such as the infusion of plant medicine into cosmetic products and the transmission of knowledge through community events and workshops. Through the use of ethnographic research, I analyzed the relationship between the use of *ewe*, sacred plants of Candomblé, and other ancestral plant medicine of the botanical legacy to illuminate prominent features of the holistic nature of healing, ancestrality, and health perspectives in Salvador, Bahia as I was introduced to the diverse contexts that ultimately affect health outcomes for Afro descendants in Brazil as well as how health is regarded. In recognizing the value of these healing traditions, this effort bridges gaps in understanding health perspectives, cultural values, and lived experiences for some Afro descendant communities in Brazil, and ultimately offers a paradigm shift in the assessment and acknowledgement of health as a cultural praxis. These relationships influence ideas of health, healing, and wellness thereby reflecting themes of spirituality, resistance, and ancestrality in the African diaspora. This work has exposed the core of a long-standing philosophy based on justice, autonomy, and balance.

The inequity that Afro-Brazilians face is a direct product of the imbalances to which they are socially and historically subjected. Thus, this socio-cultural perspective to which I focus on in this work, aims to understand the nuances and discrepancies of the current public health system in Brazil and the social body not only for its technical character, but also for its historical, social and cultural nuances. This perspective offers a

holistic theoretical framework including Black women's activism efforts for the human right to health, thereby initiating a practical and theoretical dialogue focused on restructuring the definition of health to adequately meet the needs of those who were excluded from fundamental health access services through traditional practices and rituals.

Justice, Healing, and Agency

The Yoruba Model of Equilibrium is a reminder to observe each of life's components as an intricate, interdependent system. This gentle ecosystem is reliant on the cooperation and alignment of the other elements. If health is the balance, the state of equilibrium then disease and illness is the manifestation of imbalance and disequilibrium. This state is can be assessed by analyzing the state of nature, e.g. the occurrences of natural disasters, plagues, and wars. Like many African traditional systems of belief, the life hereafter is not the driving force behind human actions and intent but the present and personal responsibility to serve the Earth, honor the ancestral forces, and community is honored and prioritized. Within this frame of thought, wellness is a wholistic concept and praxis in which requires reflection, introspection, community interaction, accountability, and respect. I am offering a paradigm shift in the way that we evaluate health, as health is cultural, and culture informs how decisions are made and carried out.

I suggest using these principles to redirect attention to the social issues that present in our societies. In other terms, the YME conceptualizes how the body works through the physical dimension as a biological channel that materializes our presence in the world. Drawing attention to the concept of the personal body as a social construction, representing cultural symbolism in a society, the social body has these characteristics in common. The

social body is a society, a collection of demographic groups, ideologies, experiences and shared values. In this sense, the social body shares ideals of race, gender, economics, cultural values, and other social symbolisms. If the social body were built under the guise of violence, that violence will manifest and perpetuate because it is integrated into the body's information system and carried out as such. At the intersection of health, healing, and African diasporic culture, there are prominent themes of resistance and restorative just that is carried out through the intentional and sacred use of plants. Ultimately, I speak to the African Botanical Legacy in Brazil, not as a historical appendage but rather as a credible system of knowledge that has resisted hegemonic oppression, endured erasure, and reinvented itself in many ways. The African Botanical Legacy is closely tied to the YME as it utilizes methods to bring people closer to equilibrium or health holistically, a vision of health is difficult to conceptualize because it transcends the rigid separation of concepts of about the body, the mind, Nature, and interrelationships. This framework can be used to address energetic imbalances in institutional structures based on how policies are implemented and affect people, the environment. This frame of reference not only suggests how the past informs the present, but also indicates our potential to heal ourselves to survive and thrive in the future.

APPENDIX 1: INTERVIEWS QUESTIONS (ENGLISH AND PORTUGUESE)

Research Questions:

1. Can you describe your work (with ancestral medicine)?
2. What is your definition of ancestral medicine?
3. How would you describe your relationship with ancestral medicine (medicinal plants, herbs)?
4. What are the herbs / plants / leaves that you use more often in your work?
5. Why? What are the properties (metaphysical, therapeutic, spiritual)?
6. How did you learn to use / apply ancestral medicine? And when did you start learning? Why?
7. Do you have a garden or backyard of herbs /plants?
8. What is your religious / spiritual affiliation? How does it inform your knowledge about ancestral medicine?
9. Do you use your knowledge of ancestral medicine in your community? In which capacity?
10. How do you define the following: ancestrality, health, well-being, disease, and inequality?

Perguntas da Pesquisa:

1. Pode nos descrever seu trabalho (com medicina ancestral)?
2. Qual sua definição de medicina ancestral?
3. Como descreveria sua relação com medicina ancestral (plantas medicinais, ervas)?
4. Quais são as ervas/plantas/folhas que você usa com mais frequência em seu trabalho? Porquê? quais são as propriedades (metafísicas, terapêuticas, espirituais)?
5. Como aprendeu usar/aplicar a medicina ancestral? E quando você começou aprender? Porquê?
6. Você tem um jardim ou quintal de ervas/folhas?
7. Qual é sua afiliação religiosa/espiritual? Como informa-o seu conhecimento sobre medicina ancestral?
8. Você usa seu trabalho de medicina ancestral em sua comunidade? Em quais circunstâncias?
9. Como você define ou o que teria a dizer sobre os seguintes termos :
Ancestralidade;
Saúde;
Bem-estar;
Doença;
Desigualdade.

APPENDIX 2: HERBS AND PLANTS

| Scientific Name | English Common Name(s) | Portuguese Common Name(s) | Hawa | Pedra da Lua | Iya Omi | Medicina da Terra |
|--|------------------------|---------------------------|------|--------------|---------|-------------------|
| <i>Matricaria recutita</i> | Chamomile | Camomila | x | | | |
| <i>Rosa</i> | Rose | Rosa | x | | | |
| <i>Piptadenia, Parapiptadenia e Anadenanthera</i> (genres) | Angico | Angico | | x | | |
| <i>Passiflora edulis</i> | Passion fruit | Maracuja | | x | | |
| <i>Citrus sinensis</i> | Orange essential oil | oléo essencial de laranja | | x | | |
| <i>Theobroma grandiflorum</i> | Cupuaçu butter | manteiga de cupuaçu | | x | | |
| <i>Curcuma longa</i> | Tumeric | Cêrcuma | | x | | |
| <i>Commiphora myrrha</i> | Myrrh | Mirra | | x | | x |
| <i>Calendula officinalis</i> | Marigold; Calendula | Calêndula | x | x | | |
| <i>Rosmarinus officinalis</i> | Rosemary | Alecrim | x | x | | |
| <i>Helichrysum stoechas</i> | Shrubby Everlasting | Perpétua | x | | | |
| <i>Jasminum</i> | Jasmine | Jasmim | x | | | |
| <i>Lavandula</i> | Lavender | Lavanda | x | | | |
| <i>Prunus dulcis</i> | Almond | Almendoim | | x | | |
| <i>Sodium chloride</i> | Salt | Sal | | x | | |
| <i>Salvia officinalis</i> | Sage | Salvia | | x | | x |
| <i>Mentha</i> | Mint | Menta (oléo essencial) | | x | | |
| <i>Hibiscus</i> | Hibicus | Hibicus | | x | | |
| <i>Persea americana</i> | Avocado | Abacate (manteiga) | | x | | |
| <i>Vitellaria paradoxa</i> | Shea butter | Karité (manteiga) | | x | x | |
| <i>Copernicia prunifera</i> | brasil or palm wax | carnaúba | | x | | |
| <i>Laurus nobilis</i> | Bay leaf | Folha de louro | | x | x | |
| <i>Theobroma Cacao</i> | Cocoa butter | Cocoa (manteiga) | | x | | x |
| <i>Bixa orellana</i> | Annatto | Ururcum, Annato | | x | | x |

| | | | | | | |
|--------------------------------|---|---------------------------------|---|---|---|---|
| <i>Aloe</i> (genus) | Aloe Vera | Babosa | | x | x | |
| <i>Cymbopogon citratus</i> | Lemon grass | Capim santo | | | x | |
| <i>Cinnamomum verum</i> | Cinnamon | Canela | | x | x | |
| <i>Syzygium aromaticum</i> | Clove | Cravo | | x | x | |
| <i>Orbignya speciosa</i> | Babassu, babassu palm | Babaçu (óleo), Cusi | | x | | |
| <i>Helianthus</i> (genus) | sunflower oil | óleo de girassol | | x | | |
| <i>Olea europaea</i> | olive oil | óleo de oliva | | x | | |
| <i>Mentha piperita</i> | Peppermint | Hortelã | | x | x | |
| <i>Ziziphus joazeiro</i> | Jua | Juá de boi | | | x | |
| <i>Kalanchoe</i> | Widow's trill, Flaming Katy | Folha de costa | | | | |
| <i>Artemisia</i> | Mugworts | Artemesia | x | | | |
| <i>Solanum paniculatum</i> | Jurubeba | Jurubeba | | | x | |
| <i>Sambucus nigra</i> | Elder, Elderberry | Sabugueiro | | | x | |
| <i>Pimpinella anisum</i> | Fennel, Anise | Erva doce | | | x | |
| <i>Elaeis guineensis</i> | African palm oil | Dendê | | | x | |
| <i>Prunus dulcis</i> | Almonds | Amêndoas (crème) | | | x | |
| <i>Schinus terebinthifolia</i> | Brazilian pepper-tree | Aroeira vermelha | | | x | |
| <i>Ruta graveolens</i> | Common rue | Arruda | | | x | |
| <i>Melissa officinalis</i> | Lemon balm | Cidreira | | | x | |
| <i>Aeollanthus suaveolens</i> | N/A | Macassá | | | x | |
| <i>Mentha spicata</i> | Spearmint | Água de alevante, hortelã-verde | | | x | |
| <i>Pogostemon cablin</i> | Patchouli | Patchouli | ? | ? | x | |
| <i>Boerhavia diffusa</i> | Hogweed; pigweed; red spiderling | Pega pinto | | | x | |
| <i>Newbouldia laevis</i> | Akoko | Acocô | | | x | |
| <i>Schizolobium parahyba</i> | Brazilian firetree; Brazilian fern tree | Vintém; guapuruvu | | | x | |
| <i>Ocimum basilicum</i> | Basil | Manjerição | | | x | |
| <i>Cyperus rotundus</i> | Nut grass; nut sedge | Dandá da costa | | | x | |
| <i>Copaifera langsdorffii</i> | Copaiba | Copaíba | | | | x |

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CHAPTER FIVE: THEORY

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Biography

Arielle Crook is scholar and visual and movement artist who earned her B.S. in Biology from Xavier University of Louisiana, graduating with a double minor in Chemistry and Spanish. As a premedical student, she sought eclectic opportunities that would enrich her understanding of what it means to be a health care professional. Arielle travelled to various countries, such as Haiti, Costa Rica, and Cuba, where she developed her unique understanding of global citizenship, holistic wellness, and truly began to recognize the richness of the African diaspora in the Latin American and Caribbean region. Her perception of health and healing began to shift during her time as a clinical apprentice in Port au Prince, Haiti as well as when she conducted public health research in Havana, Cuba. As Arielle learned more about the health care structures on these islands and learned more about the people and cultures that interact with them, her career trajectory began to shift. As a Foreign Language and Area Studies (FLAS) scholar, Arielle explores the various uses of plants and other healing modalities in African-derived religions in Brazil. While utilizing her skills as a visual and movement artist to engage with my international and local communities, Arielle studies the uses of plants to raise questions on resistance, healing, and cultural continuity. Arielle aspires to create a professional research career centered on creating bridges between people of the Africa diaspora through transatlantic dialogue to facilitate conversations based on healing through plant medicine, storytelling, and creative movement.