



Hacettepe University Graduate School of Social Sciences

Department of American Culture and Literature

**JOHN BURROUGHS' PLANTS: AN ECOCRITICAL APPROACH
TO BURROUGHS' NATURE PHILOSOPHY AS REFLECTED IN A
YEAR IN THE FIELDS, SIGNS AND SEASONS, FIELD AND STUDY,
AND UNDER THE MAPLES**

Tuğçe Gül BABACAN

Master's Thesis

Ankara, 2025

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ACCEPTANCE AND APPROVAL

The jury finds that Tuğçe Gül BABACAN has on the date of 17/01/2025 successfully passed the defense examination and approves her Master's Thesis titled "John Burroughs' Plants: An Ecocritical Approach to Burroughs' Nature Philosophy as Reflected in *A Year in the Fields, Signs and Seasons, Field and Study*, and *Under the Maples*".

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Tuğçe Gül BABACAN

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Bu alıřmadaki bütn bilgi ve belgeleri akademik kurallar erevesinde elde ettiđimi, grsel, iřitsel ve yazılı tm bilgi ve sonuları bilimsel ahlak kurallarına uygun olarak sunduđumu, kullandığım verilerde herhangi bir tahrifat yapmadığımı, yararlandığım kaynaklara bilimsel normlara uygun olarak atıfta bulunduđumu, tezimin kaynak gsterilen durumlar dıřında zgn olduđunu, **Prof. Dr. Ufuk ZDAĐ** danıřmanlığında tarafımdan retildiğini ve Hacettepe niversitesi Sosyal Bilimler Enstits Tez Yazım Ynergesine gre yazıldığını beyan ederim.

Tuđe Gl BABACAN

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ABSTRACT

BABACAN, Tuğçe Gül. *John Burroughs' Plants: An Ecocritical Approach to Burroughs' Nature Philosophy as Reflected in A Year in the Fields, Signs and Seasons, Field and Study, and Under the Maples*, Master's Thesis, Ankara, 2025.

For the past century, the prominent nature writer John Burroughs' works have been analyzed from various standpoints, ranging from his observations of nonhuman beings which include animals, specifically birds and bees, to his merging of literature and science, and to the interrelationships between Burroughs and outstanding nature writers, such as Thoreau, Emerson and Muir. However, as a first in Burroughs studies, this thesis will center on Burroughs' plants through an analysis of his nature philosophy which brings forth new ways of thinking of plant lives by cultivating a vegetative point of view. Through a critical approach to his works from a critical plant studies perspective, this study aims to re-interpret John Burroughs' works through a close examination of *A Year in the Fields* (1875), *Signs and Seasons* (1886), *Field and Study* (1919), and *Under the Maples* (1921). Utilizing Michael Marder's *Plant-Thinking: A Philosophy of Vegetal Life* (2013), along with his other writings that contributed to the field of critical plant studies, this study focuses on Burroughs' nature philosophy, which encompasses vegetation, as well. This nature philosophy, from more than a century ago, coincides with the contemporary studies on vegetal life. In this regard, through demonstrating that vegetation has a place in the philosophical discussions about existence, this study reveals that plant-centric perspectives that de-center the human from the philosophical discussions on the lives of plants are pivotal in an era of the plant turn. In today's world, where violent acts against plantal life are ravaging lands, a nature philosophy comes to the fore to preserve and sustain vegetal life. Thus, in the posthumanist age, this thesis shows that Burroughs brings a new perspective to vegetal life by taking a critical stance to anthropocentrism. By removing the human from the center, and defying longstanding plant-blindness, this study introduces a new perspective on plant species which channels new ways of thinking about the lives of plants. Through an examination of vegetal life in the given works by Burroughs, this study portrays Burroughs' plants as alive, active, and intelligent agents in a more-than-human world.

Keywords

Critical Plant Studies, John Burroughs, Ecocriticism, Michael Marder, Plant Life, Vegetal Vitality

ÖZET

BABACAN, Tuğçe Gül. *John Burroughs'da Bitkiler: A Year in the Fields, Signs and Seasons, Field and Study ve Under the Maples Adlı Eserlerde Burroughs'un Doğa Felsefesine Ekoeleştirel Bir Yaklaşım*, Yüksek Lisans Tezi, Ankara, 2025.

Geçtiğimiz yüzyıl boyunca, önde gelen doğa yazarı John Burroughs'un eserleri, başta kuşlar ve arılar olmak üzere hayvanları da içeren insan dışı varlıkları gözlemlemesinden, edebiyat ve bilimi birleştirmesine ve Burroughs ile Thoreau, Emerson ve Muir gibi önde gelen doğa yazarları arasındaki ilişkilere kadar çeşitli açılardan analiz edilmiştir. Ancak, Burroughs çalışmalarında bir ilk olarak bu tez, Burroughs'un bitkilerine odaklanacak ve onun bitkisel bir bakış açısı geliştirerek bitki yaşamlarına dair yeni düşünme biçimleri ortaya koyan doğa felsefesini analiz edecektir. John Burroughs'un eserlerine eleştirel bitki çalışmaları perspektifinden yaklaşan bu çalışma, Burroughs'un *A Year in the Fields* (1875), *Signs and Seasons* (1886), *Field and Study* (1919) ve *Under the Maples* (1921) adlı eserlerini yakından inceleyerek yeniden yorumlamayı amaçlamaktadır. Bu çalışma, Michael Marder'ın *Plant-Thinking: A Philosophy of Vegetal Life* (2013) adlı kitabından ve eleştirel bitki çalışmaları alanına katkıda bulunan diğer yazılarından yararlanarak, Burroughs'un bitki örtüsünü de kapsayan doğa felsefesine odaklanmaktadır. Yüzyılı aşkın bir süre öncesine ait olan bu doğa felsefesi, günümüzde bitkisel yaşam üzerine yapılan çalışmalarla örtüşmektedir. Bu bağlamda bu çalışma, varoluşa dair felsefi tartışmalarda bitkilerin de bir yeri olduğunu göstererek, bitkilerin yaşamına dair felsefi tartışmalardan insan faktörünü uzaklaştıran bitki merkezli bakış açılarının, bitkiye dönüş çağında ne denli önemli olduğunu ortaya koymaktadır. Bitkisel yaşama yönelik şiddet eylemlerinin yaygınlaştığı günümüz dünyasında, doğa felsefesi bitkisel yaşamın korunması ve sürdürülmesi için büyük önem teşkil etmektedir. Dolayısıyla bu tez, posthümanist çağda antroposentrizme eleştirel bir duruş sergileyerek Burroughs'un bitkisel yaşama yeni bir bakış açısı getirdiğini göstermektedir. İnsanı merkezden çıkararak ve uzun süredir devam eden bitki körlüğüne meydan okuyarak, bu çalışma, bitki türlerine yeni bir bakış açısı getirmekte ve bitkilerin yaşamları hakkında yeni düşünme biçimleri ortaya çıkarmaktadır. Bu çalışma, Burroughs'un söz konusu eserlerindeki bitkisel yaşamı inceleyerek, insandan öte olan bir dünyada bitki türlerini canlı, aktif ve zeki bireyler olarak göstermektedir.

Anahtar Sözcükler

Eleştirel Bitki Çalışmaları, John Burroughs, Ekoeleştiri, Michael Marder, Bitki Yaşamı, Bitkisel Canlılık

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INTRODUCTION

For the past century, John Burroughs' works and life have aroused a scholarly interest and lots of studies have emerged exploring his natural philosophy. Most of these works focus on his interpretation of nonhuman beings, mostly animals and, specifically, birds and bees. They also deal with his perceptions of sentimentalism and science and different dimensions of these notions as portrayed in Burroughs' works (Mercier 511). Additionally, since Burroughs is widely known for his birds, some works focus on Burroughs' ornithology (J. P. Warren 2). There have also been works on John Burroughs in relation to other prominent nature writers such as Henry David Thoreau, Ralph Waldo Emerson and John Muir. His works are also deeply connected to Walt Whitman, who was highly influential on Burroughs (Jim Warren 84). However, this thesis will take on a distinct approach to John Burroughs' works, focusing on Burroughs' plants. Through a critical plant studies framework, mainly settled on Michael Marder's *Plant-Thinking: A Philosophy of Vegetal Life* and his further studies on the subject, this research will center on the lives of plants, by bringing forth John Burroughs' nature philosophy, by cultivating a "vegetative point of view" (Sheridan 39).

The main question underlining the reason for this study is to provide a perception which advocates seeing plant life anew. How can we create alternative ways of thinking that might lead to radical mind shifts? The question of finding another way of seeing plants and understanding their ways of living holds great importance in the formation of this thesis. For this reason, a literary analysis of John Burroughs' works from critical plant studies perspective enables a renewed way of seeing plant life in the posthumanist age.

Vegetal life, the most dominant race on the face of the earth, is an indispensable part of literary works. Numerous cultural and literary works deal with forests and wilderness spaces, such as Tompkins and Bird's *The Secret Life of Plants* (1973), Pollan's *The Botany of Desire* (2001), Laist's *Plants and Literature: Essays in Critical Plant Studies* (2013), Kimmerer's *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teaching of Plants* (2013), and Mancuso's *The Nation of Plants* (2019). Such works are ecocritical in the sense that they deal with environmental issues such as

indiscriminate logging practices, deforestation and pollution. Placing humankind in the center of the problem itself or, positioning humankind as a solution to the problem, ecocritical studies focus on the manifestations of humans' relation to and within nature. Within this context, environmental criticism leads the way for the analysis of the literary forests, wilderness areas and plant life and puts forth that these entities are significant for the health and integrity of the environment, which has been degraded by human interference. Environmental criticism makes it possible to focus on non-anthropocentric literary works and opens up doors for the critical examination of nonhuman beings.

This study will re-interpret John Burroughs' nature philosophy through an examination of his plants which include woody plants, trees, flowers and weeds by complicating on these vegetal entities both as objects and also as subjects of his literary works. I will center my research on John Burroughs' works which are *A Year in the Fields* (1875), *Signs and Seasons* (1886), *Field and Study* (1919), and *Under the Maples* (1921). Compared to the Western tradition which looks down on plant life and leaves limited room for the plant in the fictional or nonfictional narrative, John Burroughs' works shed light on the life of plants. While plant life is rarely a subject of Western literary examples, individual plant bodies and singular features of various genera of plants become the subjects of Burroughs' nature essays (Laist 11). The abovementioned four of John Burroughs' many collections of nature essays are specifically chosen for this study due to the abundance of plant life observation in the included essays. They represent not only Burroughs' unique perception and skills to capture vegetal life, but also his observation and contemplation on the life of plants. Just as Marder states that his approach to the plant life is only to "brush upon the edges of their being," Burroughs' objective is to "light upon the whole of Nature" along with the vegetal life and "her methods, her laws, her results, her non-human ways" (Marder, *Plant-Thinking* 13; Burroughs, *Field and Study* 176). Both look at the vegetal world through eyes that are isolated from human-centrism. By scrutinizing on textual representations of the plants that are featured in these works, this study centers on the representations of Burroughs' plants by thinking with and across the physical presence of these entities, by solely focusing on their lives and capabilities within their environment. Positioned within an ecological whole together with all members of the living community including humans, animals, plants and all others, Burroughs' plants and trees stand out as having equal value as human beings. Therefore, this analysis shows

that Burroughs acknowledges them as active agents in a more-than-human world, in that the concept of community extends beyond human species to include arboreal and plantal beings. Together with arboreal beings and all other beings in nature, plant life is also included within the notion of community. Plant life shows many similarities to humans both in their nature and complex characteristics and constitutes a tremendous space in humans' lives, thus, it challenges the boundaries of a singular human community dominating the earth.

In order to discuss Burroughs' nature philosophy, the thesis will primarily underline Burroughs' perception of nature which can be traced in his essays, such as "Sharp Eyes," "A Sharp Lookout" and "The Art of Seeing Things." As he mentions in his "Sharp Eyes," published in *Locusts and Wild Honey* (1879), having sharp eyes means to see what is beyond the physical appearance. An observer looks closely and steadily at nature without anything else in his mind to read the signs of nature. Through "sharp eyes," it is possible to accomplish seeing nature truly ("Sharp Eyes" 37). In seeing, in a traditional way, there is ocularcentrism which is the Western concept of prioritizing the sense of vision (Jay 311). However, on the contrary, to see what is beyond the general appearance requires "not outward eyes, but inward" ("Sharp Eyes" 37). Pinar Batur and Ufuk Özdağ argue that "The 'inward eye' transforms feelings, desires, understanding, values, and imagination into the art of seeing things" (462). Burroughs' "A Sharp Lookout," published in *Signs and Seasons* and *A Year in the Fields*, also brings out another way of perceiving nature. He suggests that "the longer the observation, the sharper the insight" (Batur and Özdağ 464). It takes years of steady observation and study to uncover the mysteries of nature. According to Burroughs, the more you study nature, the more you are drawn into it. The more you find things to marvel at in nature, and the more you find yourself in it (Burroughs, *Signs and Seasons* 16, 20). Moreover, this particular perception can be traced back in Burroughs' "The Art of Seeing Things," an essay in *Leaf and Tendril*, and it shows a more artistic approach to nature. To be a great observer means to see what others do not see and to watch spontaneous and unplanned actions of nature happening within the observer's environment. To be a great observer is to "have 'an eye practiced like a blind man's touch'" ("The Art of Seeing Things" 6; *Under the Maples* 81, 133). Seeing, for Burroughs, is a form of art which requires you to keep your senses open and your eyes and ears to be alert. Nature is also an art which conceals and hides

itself only to be opened up to an observer, who acknowledges the hidden art of vegetal world (“The Art of Seeing Things” 10). Through a willful observatory participation accompanied with love for nature, one does not let the natural entities and happenings go out of sight. As Burroughs says, “You must have the bird in your heart before you can find it in the bush” (“The Art of Seeing Things” 23). This artistic perception has taught Burroughs humans’ kinship with vegetation. Therefore, Burroughs’ works that represent a new approach to plant life have gained more significance in the age of climate crisis.

John Burroughs: An Overview of His Work and Life

John Burroughs was the most prominent American nature writer between the years 1870 and 1920, and he published numerous works. He is known as the writer of the Hudson River Valley and the Catskill Mountains of New York (J. P. Warren 13). He shed light on the “art of simple living” and he showed the power and beauty of the surrounding environment which is quite close to humans (1). In his books, Burroughs provides the readers with direct contact with nature and his experiences within and through it. Along with that, he presents his norms about the concepts of religion, cosmos, and time with his scrutinized observations of nature. His works, as James Warren suggests in *John Burroughs and the Place of Nature*, “convey through the imagery and tone of unadorned discovery the experiential quality of walking in the woods” (2). He focuses on “the concrete, real, and familiar rather than the abstract ideal” (18). He keeps his style simple and away from uncertainty or imaginary. He notes that “I am looking for natural truths. I am less interested in the sermons in stones than I am in the life under the stones” (Burroughs, *The Last Harvest* 54). In addition to being a nature writer, he also held a great importance with his works of literary criticism. His critical articles on Whitman, Thoreau, and Emerson make him an early producer of ecocritical works where he utilized the concept of nature as he critically approached literature (J. P. Warren 2). Burroughs worked in several different jobs throughout his life. He worked as a school teacher, a journalist, an auditor in a bank and so on (“John Burroughs” 177). He, then, bought a farm at the Hudson and went on to live there. He spent the rest of his years on the field, fertilizing the land and growing fruits, observing nature and writing about it. He published various works about his observations of nature both in a scientific and sentimental way throughout his entire life. Throughout his life, Burroughs published twenty-five books

and his essays received a great deal of public attention. Some of his works are *Wake Robin* (1871), *Winter Sunshine* (1875), *Birds and Poets* (1877), *Locusts and Wild Honey* (1879), *Fresh Fields* (1884), and *Leaf and Tendril* (1908). His works have been taught in schools in the United States, and they have been used as a guideline for reliable observation. Some schools have been established and named after him; they still function under the same name today (Walker xiv).

He is acknowledged for his observations of various entities in nature, and he uses them in his nonfictional works dealing with every little aspect of those entities. He writes through a close inspection of nature. He writes in a way that creates sympathy for natural entities. He concentrates on all beings that are so commonly found and seen in nature, but turns the common things into the subject and places them at the center of interest. He focuses on the “everyday aspects of nature” which carry a lot more meanings than they are expected in the Western philosophy (Burroughs, *Under the Maples* 28). The value and meanings of daily and common entities, which are of Burroughs’ interest, lie in “the white and purple lilacs, in the maple-leaves nearly full grown, in the fringe of the yellowish-white bloom of the chestnut and oak, in the new shoots of the grapevines” (28). He believes that “there is nothing more potent and mysterious than the common elements and forces” that are found in the natural world (*Field and Study* 269). This is a consequence of his “true inwardness of Nature-study that Burroughs expressed - a well-informed love of the country” (“John Burroughs” 178).

Burroughs’ simplistic way of living and his literary works, endowed with tranquility of nature, have received great attention. He was born in Roxbury, New York in April 3, 1837. He grew up in the Catskill Mountains, New York and spent most of his childhood there. He chose to live in a simple and a modest way. He was born to a family of farmers; both his father and his grandfathers were farmers (Burroughs, *My Boyhood* 94). While he was working in various jobs, he was writing about his observations, thereby gaining some income from his writings. His interest in nature grew in early 1862 (Lupfer 393). He started to keep a journal about the entities he encountered in the region, ranging from birds to plants. He, physically, spent a great amount of time in the forests and fields and he was also indulged heavily in reading about natural history. He was very enthusiastic about exploring flowers and encountering new species. In one of the letters he wrote to

Myron Benton, Burroughs asked his friend to name some rare plants she encountered. His aim was to go around West Point and find those specimens (Lupfer 393). As editor Charlotte Zoë Walker puts it in the “Introduction” of *The Art of Seeing Things: Essays by John Burroughs*, “Burroughs walked in nature with unceasing pleasure and perceptiveness, and wrote about it in informal, inviting, yet scientifically responsible essays” (xiv).

Burroughs’ essays have been accepted as a success in the flourishing of nature essays in the United States. His books gained quite a fame in his time and thousands of copies were sold. In addition to the schools under his name, numerous clubs and organizations emerged which trace his footsteps. His residence in Slabside, which had become his “Thoreauvian retreat ... a kind of Walden-on-Hudson,” was visited by various groups of people (Black 69). In addition to the hundreds of locals at a time visiting the retreat, many other famous names were his guests. Among these renowned names are John Muir, Walt Whitman, Emerson, Thomas Edison, and Theodore Roosevelt (69). He not only inspired thousands during his time, but he also influenced fellow upcoming writers over the years. His perceptions on nature, observation and interaction have been influential for many of the familiar names such as Annie Dillard, Aldo Leopold, Barry Lopez, and Wendell Berry. He shaped the “American mode of writing about Place” through his unique approach which “grafted the Word and the Land” and necessitated “to look hard and sing loud” (69).

Burroughs’ pursuit of a modest life is influential in his tone of nature writing. As James Perrin Warren suggests in his *John Burroughs and the Place of Nature*, “The tone of humility is commanding, for Burroughs undercuts the anthropocentric hierarchy of the culture-nature relationship” (3). His constant ruminations on nature and cultural concepts have paved the way for his essays. In his essays, he pursues a rhetorical balance bridged between scientific knowledge and aesthetic sensibility. Throughout his profession as a nature writer, “Burroughs was himself an exemplary figure of the imagination that combines science, natural history, philosophy, and literature” (3). The years John Burroughs had been active around 1870 to 1920 witnessed a turn of the century in American history marked by the end of the Civil War. The Hudson River area, where he spent his life exploring, was associated closely with Burroughs. The region, in the last

half of the nineteenth century, was affected by industrialism. In addition to the factories along the shoreline of the Hudson, the region was getting strong with the emergence of new industries. As Schuyler states, around the Hudson River, “Ice harvesting had been practiced for generations, but after the Civil War, as the populations of the river cities and the metropolis to the south grew rapidly, a supply of pure ice became essential for the preservation of food” (133). With the abundance of the source, the ice industry reached its peak. In addition to the ice, production of bricks was called for in order to facilitate urbanization in the Hudson Valley. Tons of bricks were required for the new constructions which was manufactured by the clay of the river’s muddy areas. Such enterprises obviously left marks in the Hudson River valley. The region “still bears the imprint of these activities - the cavernous, boxlike structures where ice was stored, the rough gouges in the land where clay was excavated, and the surviving buildings associated with the brick-making industry” (133). During a time of environmental concerns caused by the interference with his surrounding environment, Burroughs managed to capture the valley as reflected in his numerous essays.

In the late nineteenth century, industrialization and urbanization practices made way for the degradation of the environment. Progressive Era writers like Burroughs and Muir contributed immensely to the field of nature writing. Around the same era, Charles Darwin’s biological theories opened up new ways of thinking. Even though the notion of evolution was a progressive area of study, it also raised concerns about mankind’s existence. Sociologist E. A. Ross was one of the names who was concerned about the results of the studies by Darwin and Weismann. He believed that these theories, showing mankind in a constant fight for existence, caused “The worthlessness of life” which left humankind with “[n]othing ... mysterious, nothing unique, nothing divine” (Ross 739, 742). This mood of pessimism about humans’ position in nature while portraying “the natural world to be amoral, arbitrary, even cruel,” in return, “stripped man of his illusions, setting him adrift in a void” (Mighetto 34). Around the end of the century, American literary naturalists produced works which prove and maintain the same notion where mankind is destitute in their confrontation with natural forces. Darwin’s theories about similar natures of men and animals, also, brought about a more violent facet of human nature. Robert Louis Stevenson’s *Strange Case of Dr. Jekyll and Mr. Hyde* is one of the works which exemplify humans’ bestiality. While, at the turn of the century, the United

States faced such fears, some other naturalists like Burroughs portrayed humans and nature from a distinctive perspective. With a shift from the pessimistic depictions of nature, such writers “through firsthand observation” represented “evidence of dignity, beneficence, and morality in the natural world. The prevalence of their genre ... demonstrates that Americans of the late nineteenth and early twentieth centuries were indeed interested in reading about this aspect of nature” (Mighetto 35).

Burroughs, in *Birds and Poets*, notes that “It is well to let down our metropolitan pride a little. Man thinks himself at the top, and that the immense display and prodigality of Nature are for him. But they are no more for him than they are for the birds and beasts, and he is no more at the top than they are” (53). As he suggests humankind does not have dominion over other species, rather they are on the same level with all members of the community. One is not higher than the other. Plants’ role in nature is undeniable and just as humans in nature, they have an equal place within the whole. Nature and humans are interrelated to one another. There is a reciprocal relationship between the two. This connection derives from the projection of one on the other. For John Burroughs, humans project themselves on the surrounding environment. As he transcribes in his journal in 1877, people believe that they are communing with nature, “but ‘tis with ourselves we commune. Nature has nothing to say. It all comes from within ... You find in Nature only what you bring to her ... People admire my birds, but it is not the birds they see, it is me. I put myself in them” (qtd. in Lutts 89). A piece of man is embedded within nature. In what man observes, he puts a piece of himself in it. It is possible to find one’s self within nature because humans reflect their perception on nature. A naturalist reflects himself on nature, and in return, he receives what he gives to nature. A literary naturalist, therefore, resembles a honey bee according to Burroughs. “Just as nectar does not become honey until it passes through the chemistry of the bee's body,” in a similar way in nature writing, “experiences in nature do not become literature until they are processed by the mind and spirit of the author” (Lutts 89-90). Every piece of truth and observation goes through the mind of the naturalist and gets reflected on paper. Therefore, when nature and its entities are observed, they travel through the observer’s mind and get filtered by his experience. This process is what makes the observation distinct.

In addition, Burroughs states that “we share in the slow optimistic tendency of the universe, that we have life and health and wholeness on the same terms as the trees, the flowers, the grass, the animals have, and pay the same price for our wellbeing, in struggle and effort, that they pay” (*Leaf and Tendril* 245). They are universal rules which apply to the members of the earth community. Inhabiting the same planet, regardless of their race, beings on the face of the earth are members of the same community and they share the same fate. Man is not superior to the other members of the natural community. Burroughs argues in “All’s Right with the World” in *Leaf and Tendril* that, “our fathers looked upon man as something entirely apart from nature; he was not the result of the cosmic process, but a special creation, endowed with special powers, and given an immortal soul, which was denied to all other creatures” (267). Placing mankind at the top of the chain, all of the privileges are attributed to men in anthropocentric cultures. Mankind is granted with the highest of values and sophisticated traits, while all others are not given any of these blessings. A shift from an anthropocentric view to a biocentric view is vital in the sense that, as Burroughs puts, “It is only by regarding man as a part of nature, as the outcome of the same vital forces underfoot and overhead that the plants and the animals are, that we can find God in the world” (267).

John Burroughs is a man of simplistic living. His way of life and his pursuit of a simpler life brings him close to common beings in natural life. In “An Outlook Upon Life,” one of the essays in his *Leaf and Tendril*, he gives an autobiographical note about his perception of the simple life he pursues. He writes “I am bound to praise the simple life, because I have lived it and found it good. When I depart from it, evil results follow. I love a small house, plain clothes, simple living” (260). His preference of a modest life brings him close to the simplest things on earth. Being close to the most common things in nature is possible through simplified living which also shows virtuousness because “The wise human eye loves modesty and humility” (Burroughs, *Signs and Seasons* 224). It gives an opportunity to open one’s senses and provides direct contact to life and the things on the earth. When all boundaries are removed, “How free one feels, how good the elements taste, how close one gets to them, how they fit one’s body and one’s soul!” (Burroughs, *Leaf and Tendril* 260). This way of living enables man to bond with natural life. For Burroughs, it is an exhilarating experience to perceive the natural world as it is away from materialistic boundaries. This way, as Burroughs suggests, a person can truly be open to

the surrounding environment. One can feel and cut the wood that is used for heating and gets fascinated by the sight of fire doing its job. Similarly, one can appreciate the fountain which quenches the thirst; can truly breathe and smell the air; can be thrilled by the scene of a wild flower or by the height of a tree. For Burroughs, these gifts are “the rewards of the simple life” (261).

Power of Observation

John Burroughs’ unique perception of nature is mediated through his emphasis on truthful observation of nature. As Schuyler suggests “Burroughs’ intensely personal style of nature writing, and his appeal to readers, were shaped by his belief in the importance of seeing and recording the natural world accurately” which forms the base of his “authorial strategy” (142). The first essay which portrays this notion is his “Sharp Eyes” in *Locusts and Wild Honey*. He pursued his essays defining and detailing the process of accurate observation combined with his personal experiences in nature. For him, “One must not only see sharply, but read aright what he sees. The facts in life of Nature that are transpiring about us are like written words that the observer is to arrange into sentences” (“Sharp Eyes” 38). The natural world is full with its own characters that consist of plants, animals, and geological formations. Beyond the general looks, there are facts and details which can be grasped by the sharp eyed observer. Only then, can it be possible to apprehend the true significance of nature. In another short essay titled “Keen Perceptions,” published in *Riverby* (1894), Burroughs distinguishes between two types of observers, those who are hasty and careful. Careful observers achieve “Success in observing nature” through “alertness of mind and quickness to take a hint,” while the hasty ones “make the mistake of reading their own thoughts or mental and emotional processes into nature; plans and purposes are attributed to the wild creatures which are quite beyond them” (Burroughs, “Keen Perceptions” 118).

Burroughs saw nature with passion and deep feelings and saw it as a unity that consists of harmony of values. This belief has shaped his imagination and, thereby, his nature philosophy. Burroughs suggested that “some persons seem to have opened more eyes than others, they see with such force and distinctness; their vision penetrates the tangle and obscurity” (“Sharp Eyes” 37). What differentiates such people from others is their “inward eye,” which is combined with a love for nature. The “inward eye” perceives the

world as a “life-force” and it entails the will to live and survive (Batur and Özdağ 462). Burroughs’ concept of “inward eye” stands as an ecocritical resource that can be utilized when approaching nature. Having an “inward eye,” not only requires the observer’s imagination and compassion, but it also entails a scientific and analytic approach to nature. As Batur and Özdağ suggests “It requires *a priori* critical thinking together with sensing and dreaming, i.e., with eyes that have aim and purpose to think, to feel and to believe in nature” (463).

Mere observation is not what “inward eye” entails as the essence. To achieve it thoroughly, “one must not only see sharply, but read aright what he sees” (“Sharp Eyes” 38). To develop an “inward eye,” seeing the obvious is not enough. Plants have a distinct quality which is their “slowness.” According to Besky and Padwe, “Plants grow, move, penetrate, and even invade, but they do this at velocities that are normally hard to discern with a passing gauze or occasional glimpse” (21). Plants are active agents in their nature, however, their slowness cause the uneducated eye to miss the natural processions in the surrounding environment. As Burroughs states, in “The Art of Seeing Things,” published in *Leaf and Tendril*, “The art of nature is all in the direction of concealment” (10). Therefore, seeing must go beyond that point to see the things that are concealed. In this essay, Burroughs elucidates his perceptions on how to read the “book of nature” through observation (12). He draws a similar connection to the one that he mentioned in “Keen Perceptions.” Accordingly, people have dissimilar levels of observation. While some are “keenly alive: their intelligence, their powers of recognition, are in full force in eye and ear at all times,” others are “half alive” to their natural surroundings (4). All people see, but some of them see “finely and discriminatingly” rather than “coarsely and vaguely” (5). Good observers look for specific details and do not let them escape their eyes. The natural world is on constant move and change. It is not possible to categorize it as black and white since it lays on similar tones like “gray upon gray, [or] green upon green” (7). Even though the players in nature tend to be tiny and obscure, observers with “a mind sensitive to outward objects” can be successful in understanding the book of nature (11).

This unique perception brings out the truthful aspects of nature. The author or the essayist relies on the facts when reflecting their observations on paper. For Burroughs, the “standard of literary naturalism” is through “concrete observations in the field rather than

on invention” (Schuyler 144). In addition to being factual in representing nature in writings, Burroughs encourages the readers to focus on nature that is close at hand and close to their homes. In that sense he cherishes the country people who live in peace with nature. Setting the countrymen aside from the “hasty traveler,” he states that “They have read the fine print that escapes the hurried eye and that is so full of meaning. Every horizon line, every curve in hill or valley, every tree and rock and spring run, every turn in the road and vista in the landscape, has its special features and makes its own impression” (“The Art of Seeing” 9).

John Burroughs’ Predecessors and Reflections of Vegetal Life

In a critical outlook to John Burroughs’ works, his antecedents Ralph Waldo Emerson, Henry David Thoreau and Walt Whitman are taken into account in terms of their works reflecting plant life. Burroughs also focused some of his essays solely on the three predecessors, Emerson, Thoreau and Whitman. His “Emerson and His Journals,” “Flies in Amber,” and “Another Word on Thoreau” in *The Last Harvest* (1922), written in his final years and edited by Dr. Clara Barrus, prove the influence of Thoreau and Emerson on Burroughs as an ecocritic and a literary naturalist. The three works portray how he perceives Emerson and Thoreau and interprets both writers in relation to one another (J. P. Warren 14-5). Burroughs’ connection to Emerson covers the span of sixty years. He read Emerson for the first time in 1856. At the time, he was nineteen years old and working as a schoolteacher in the country. In his essay “An Egotistical Chapter” published in *The Writings of John Burroughs: Indoor Studies*, he recalls those moments as, “I carried to my room one volume of his, but I could do nothing with it. What, indeed, could a Johnsonian youth make of Emerson? A year or so later I again opened one of his books in a Chicago bookstore, and was so taken with the first taste of it” (247). Burroughs continued to note Emerson’s influence on him in his books and his interviews. He was heavily interested in Emerson’s books and defined the connection as having found himself in them. He portrays himself to be an Emersonian and following his tone in those first two or three years of his writing (J. P. Warren 23). He writes that “As a youth I was a philosopher; as a young man I was an Emersonian; as a middle-aged man I am a literary naturalist; but always have I been an essayist” (“An Egotistical” 245). He experimented in writing essays in similar forms as Emerson’s. In the Berg Collection in 1859, he

published a notebook titled “A Note Book: containing a few smooth pebbles and pearly shells which the waves of thought leave, from time to time, upon my shores.” In this notebook collection, he put together more than a hundred and fifty-page-long trial essays in the Emersonian style. In the same year, Burroughs published another notebook which again contained essays written in the Emersonian style. He familiarized himself with Emerson’s writing style so well that his works were confused with Emerson’s original works (J. P. Warren 23).

Emerson also included vegetal life in his works. As Burroughs suggests in *Signs and Seasons*, Emerson’s interest grew close to a certain species of plants which is the pine. Emerson’s interest in nature and other members of the natural community stems from pines. Such can be seen, in his choices of “pine-warbler” when he takes the warbler as his subject (*The Complete Works* 147) or “pigeon in the pines” (250) when he refers to the pigeons or chickadees running around the pine in Walden (342). Edward Waldo Emerson also states in biographical notes that “The stately white pine of New England was Emerson’s favorite tree” (“Notes” 421). Thus, it is a recurring element in his poems (Burroughs, *Signs and Seasons* 43). Pine trees are frequently repeated and positioned as essential in his poems, especially in “Woodnotes I.” Burroughs states that “It is perhaps from the pine that he [Emerson] gets the idea that ‘Nature loves the number five’” (43). The lines that Burroughs quotes are from Emerson’s “Woodnotes I,” which follows as, “Why Nature loves the number five, / And why the star-form she repeats” (“Woodnotes I” 43-4). Emerson’s fascination with number five might be because of the fact that the pine tree’s “leaves are in fives and its whorl of branches is composed of five” (Burroughs, *Signs and Seasons* 43). Burroughs also acknowledges the dominance of odd numbers, which “generally prevail” in the “world of living things” (*Under the Maples* 164). In accordance, “Leaves that are in lobes usually have three or five lobes” (164). The common element, as the number five, occurs not only in vegetal life, but also in human life. This also signals a Darwinian shared evolutionary kinship. In *Origin of Species*, he highlights that plants and humans have a common ancestry (Hall, *Plants as Persons* 137). Just as certain parts of plants have five of a specific feature, humans also have number five as can be seen in fingers. Therefore, the common appearance of number five both in

humans and plants points out to a common ancestor¹ even though the relation might be that of a distant one (137).

Emerson's works have been largely situated in the past and have been forgotten by the younger generation of the twenty first century (J. P. Warren 15). In a similar way, Burroughs suspected that his works were no longer appealing to the new generation who was not interested in nature writing. In his journal in November 9, 1916, Burroughs noted,

The magazine writer has a new problem: how to address himself to the moving-picture brain—the brain that does not want to read or think, but only to use its eager shallow eyes ... For my own part, I am sure I cannot interest this moving-picture brain, and do not want to. It is the shallowest brain that has yet appeared in the world. What is to be the upshot of this craze over this mere wash of reality which the “movies” (horrible word!) offer our young people? (qtd. in J. P. Warren 15)

It can be inferred from the passage that there has been a widened gap between the modern world and Burroughs which indicates his “cultural displacement” (J. P. Warren 15). Within this displacement and his audience running low in numbers, as Warren states, Burroughs' works have been nearly fading away. What Burroughs seems to insist on is to revive an educated literary audience who are informed about their relationship to the natural world as their “common ancestry” (16). He cherishes the past intimate relations with nature and Emerson's works in his “Flies in Amber.” He gathers his ideas around the flaws of Emerson in his exaggerated narratives with “wild extravagance,” where he misinterpreted nature by the lack of “the vitalities ... the real thing” (*The Last Harvest* 87, 90). However, such flaws do not alter Emerson's “spiritual power and insight,” as Burroughs suggests (*The Last Harvest* 90). He cherishes Emerson's works and reminds the readers to keep alive the memory of the past,

¹ Modern Darwinian theory splits into two sections, “The Tree of Life Hypothesis” and “The Hypothesis of Natural Selection.” While the former advocates that “All organisms now on earth have a common ancestor,” the latter hypothesis suggests that natural selection is influential on the “cause of the similarities and differences exhibited by the organisms now on earth” (Sober 424). The number five not only appears in plant life, but it is also a trait of the humankind, as well as some animals, since this number applies to the number of fingers. Therefore, in both species, number five is a recurring fact. This may be suggestive of the tree of life hypothesis which suggests that “all organisms now on Earth trace back to a common ancestor” (435).

Let us keep alive the Emersonian memories: that such a man has lived and wrought among us. Let us teach our children his brave and heroic words, and plant our lives upon as secure an ethical foundation as he did. (*The Last Harvest* 102)

Similarly, according to James Perrin Warren, these lines can be applied to Burroughs (16). This passage also underlines the reason why this thesis is formulated around the works by Burroughs. Even though his nature writing is from a century and a half ago, the value it entails is timeless. In “Emerson and His Journals,” Burroughs states that Emerson “knew that the past and the present, the near and the far, were made of one stuff ... His doctrine of self-reliance, which he preached in season and out of season, was based upon the conviction that Nature and the soul do not become old and outworn, ... The sun shines to-day; the constellations hang there in the heavens the same as of old” (*The Last Harvest* 32). J. P. Warren suggests, by the use of the word “outworn,” that nature does not get old or wear out (17). Rather, it stays the same today as it was years ago. Therefore, even though John Burroughs’ nature writing is not of today, it still is as eminent as the time it was written.

Burroughs’ critical approach to Emerson and Thoreau in his earlier works points out to him as an ecocritic. Emerson and Thoreau are the leading names of nature writing. Burroughs, in *The Last Harvest*, situates Thoreau next to Emerson and suggests that Thoreau is “Emersonian” and “he was undoubtedly deeply and permanently influenced by Emerson both in his mental habits and in his manner of life” (21). As he suggests in “Another Word on Thoreau,” in *The Last Harvest*, “after Emerson, the name of no New England man of letters keeps greener and fresher than that of Thoreau” (103). He takes both Emerson and Thoreau together and examines both writers’ literary attitudes. For Burroughs, while Emerson’s works were enriched with accounts of philosophy and poetry, Thoreau’s works were formed in solitude presenting a distinctive and genuine view of nature. Thus, as James Warren suggests, he recognizes and appreciates both versions of nature writing (19). For Burroughs, Thoreau’s *Walden* (1854) was an important piece of literature. He writes in *The Last Harvest* that the book is “a wonderful and delightful piece of brag, but it is much more than that. It is literature; It is a Gospel of the Wild” (57). He cherishes this work and Thoreau’s impact, in general. He states that Thoreau “gave us fresh and beautiful literature, he gave us our first and probably only

nature classic, he gave us an example of plain living and high thinking” (110). However, Unlike Emerson’s impact on Burroughs in terms of his literary achievements, Thoreau seems to be less influential on Burroughs’ writing. Even though Burroughs had been associated with “Thoreau charge” most of his time as a nature writer, he cleared himself off the title. As Burroughs expresses in his journal in 1878, he has his own voice in his works which is mostly isolated from Thoreau’s influence. He describes himself as not being captured by his tone thoroughly. He defines Thoreau’s writing as educative and preaching, while his aim is to merely observe and take accounts of it (J. P. Warren 33). In his accounts, he states that he does not owe his nature writing to Thoreau because he started to write about outdoor nature long before he read Thoreau. As J. P. Warren suggests Thoreau’s influence on Burroughs is the one that “he ‘falls’ in with rather than seeks out. If Thoreau is the intellectual child of Emerson, Burroughs is Thoreau’s competitive younger brother” (36).

Thoreau also immersed in vegetal life in his gatherings of essays and observations. In his “The Beanfield” in *Walden*, Thoreau proposes an outlook to the world of plants which requires a “much slower” attitude in the considerations of plant life in order to create a “much more intimate” relationship between the plant and the human (164). Thoreau’s other works, especially the ones which had been produced after *Walden*, were not completely published or publicized. Especially his extensive manuscripts titled *The Dispersion of Seeds* and *Wild Fruits* have not been widely accessed by the readers (Richardson, Jr 3). In his “The Dispersion of Seeds,” he looks into the lives of plants and movements initiated by the seeds. The plant’s movement patterns are exemplified in Thoreau’s work by the acts of the seed through the “seeds [which] ‘run,’ ‘fly,’ ‘sail,’ ‘go off like pistols on the slightest touch’” which can be considered as a part of “vegetable locomotion” (Traisnel 7). Thoreau acknowledges the dependency of the plant on the other for the purpose of growing and proliferating through scattering its seeds. For this, “the agency of the wind, water, and animals” are pivotal, as Thoreau puts it (“The Dispersion” 24). Thoreau records his observations of plant life in his journals. He observes oak trees and notices rare instances, which he includes in his *Journal* covering the years of 1837 and 1861. He notices a single root system which harbored more than one oak saplings. By examining the ages of both saplings, he finds out that while one was perished when it was ten years old, the other one grew to be sixteen years old (Thoreau, “The Dispersion

of Seeds” 120; Howard 1). Wohlleben draws a parallel point in *The Hidden Life of Trees* where he notices a web of connection amongst the trees through their roots. He bases his observation on Suzanne W. Simard’s studies on mycorrhizal fungal networks² which facilitate a connection between the trees in the area. Similar to what Wohlleben discovered in the forest in Germany a century and a half later than Thoreau, Thoreau encounters the root system that leads him to the same assumption. Recounting the same example that he mentioned in his *Journal*, he adds in “The Dispersion of Seeds” that he “counted the dead stubs or bases of shoots which had died down formerly” and finally concluded that “this root may have been as old as the large oaks around it, or some twenty-five years old” (“The Dispersion of Seeds” 120). Even though each sapling rising from the same root have different spans of life at separate times, he determines that “the short and slender twigs which rise from the ground in oak woods ... were really from these old roots of seedling decaying on the ground (120).

When discussing both Emerson and Thoreau in the nature writing profession, Burroughs also mentions William Wordsworth. He points out that,

Wordsworth gathered his finest poetic harvest from common nature and common humanity about him—the wayside birds and flowers and waterfalls, and the wayside people. Though he called himself a worshiper of Nature, it was Nature in her half-human moods that he adored—Nature that knows no extremes, and that has long been under the influence of man—a soft, humid, fertile, docile Nature, that suggests a domesticity as old and as permanent as that of cattle and sheep. His poetry reflects these features, reflects the high moral and historic significance of the European landscape, while the poetry of Emerson, and of Thoreau, is born of the wildness and elusiveness of our more capricious and unkempt Nature. (*The Last Harvest* 131)

It can be inferred from these lines that the two American prominent nature writers have different tones compared to the one that English poet Wordsworth has. While Emerson and Thoreau presents the wild American nature, Wordsworth presents a more domesticated nature reflecting both “common nature” and “common humanity” together (J. P. Warren 20). In his critical approach, Burroughs sets American nature as a fresh and wild space, whereas he sees Wordsworth in pastoral poetry tradition. As J. P. Warren

² See Suzanne W. Simard’s *Finding the Mother Tree* and Peter Wohlleben’s *The Hidden Life of Trees* for further reference.

suggests, Burroughs' tone and writing style is more similar to Wordsworth even though he is situated in the same wild American land with Emerson and Thoreau (21).

Emerson and Thoreau's impact on John Burroughs' career as a nature writer and a literary critic is undeniable. However, Walt Whitman holds a higher ground in his life since the two shared a longer relationship. Burroughs' close relationship to Whitman results from his veneration and appreciation for the poet. They first made each other's acquaintances in Washington, D.C. in 1863. They pursued their close relations until the day Whitman died. Since Burroughs and Whitman belong to different genres, Burroughs follows his guidance approvingly without the fear of falling under his influence. Whitman, not only guided Burroughs as a young writer, he also actively contributed to some of Burroughs' works. He edited Burroughs' first book *Notes on Walt Whitman, as Poet and Person* published in 1867. Whitman also wrote a piece, titled "Standard of the Natural Universal" to be included in the work (J. P. Warren 43-44). He guided Burroughs in the process of writing his nature essays. He was influential on the first four books that Burroughs produced. He helped choose the title of *Wake-Robin* (1871) which turned out to be Burroughs' most famous work. Similarly, his *Birds and Poets* (1877) was also guided and given the title by Whitman. Even though Burroughs initially wanted to name the work differently as "Nature and Genius," he followed Whitman's advice to name it as he suggested. The reason for this advice, for Whitman, was to avoid Emersonian reflections on the title since it sounds close to transcendentalist tradition (J. P. Warren 42-43).

Burroughs writes on Whitman's approach to nature and separates him from others. Burroughs states that Whitman "did not humanize Nature or read himself into it; he did not adorn it as a divinity; he did not see through it as through a veil to spiritual realities beyond" (*Accepting the Universe* 322). He kept away from objectifying natural elements for the purposes that may be useful for the human kind. Whitman's handling of nature is in a scientific manner. As Joseph Beaver suggests in *Walt Whitman, Poet of Science*, Whitman's approach to nature was through science and truth. As he states, Whitman was the first American poet "to embody modern scientific concepts in his work in a poetic manner" (vi). Thus, it can be said that "his language of science and nature is always extraordinarily precise and not just mystical metaphor" (Kepner 180). As it is further discussed in the first chapter of this study, Whitman's approach is distant from the

mystical and metaphysical perceptions of Western notions regarding the lives of plants. Whitman also perceives nature as “shifting forms of life” in his “Scented Herbage of my Breast” published in *Leaves of Grass* in 1855 (134). This perception may be signaling to the lives of plants which pursue in growth patterns that transform and go through metamorphosis continuously. Loewen suggests that these forms of lives that shift and change “continually issue from and return to their ultimate point of origin – a mysterious generative principle” (102). Similarly, Whitman’s “Eidólons” signifies natural life in “a cycle that endlessly reiterates through the phases of birth, growth, and death” (Loewen 102). In “Eidólons,” Whitman writes “Ever the dim beginning, / Ever the growth, the rounding of the circle, / Ever the summit and the merge at last, (to surely start again,) / Eidólons! Eidólons!” (*Leaves of Grass* 20). It can be understood that Whitman sees nature in cycles that perpetually follow one another as does the growth of plants. The beginning or the ending is blurry since where the plant dies or begins to live is also not to be easily defined.

John Burroughs’ Contemporaries

John Burroughs’ works, along with his contemporaries, John Muir and Theodore Roosevelt, form a baseline for American nature writing starting from the end of the Civil War in 1865 until the end of World War I. According to J. P. Warren, aforementioned writers -Muir, Burroughs or Roosevelt- are not typically included in the American literature anthologies. They might have been heard amongst the contemporary students of literature in the twenty-first century. However, while Muir’s works must have been read by a few, Roosevelt’s indulgence in nature writing is mostly unheard of. Similarly, Burroughs’ essays, as well, remain mostly unfamiliar to the scholarly audience. However, the fact that these writers do not echo in the twenty-first century literary sphere does not change that fact that they were “celebrities within the dominant literary institutions of American culture” (J. P. Warren 11). Even though Burroughs was an active and a reputable writer more than a century ago, he is unmentioned and his works are neglected in recent studies. Nevertheless, one of the most important aspects of Burroughs is his relations to the major literary antecedents, Whitman, Thoreau and Emerson, in addition to his connections to Muir and Roosevelt.

His relation to John Muir also holds equal significance. Both writers tend to perceive nature from a similar perspective. They represent nature and its position within a capitalistic and industrial culture of the United States in the late nineteenth and early twentieth century. Muir and Burroughs carried on a friendship³ which nurtured both writers. John Muir also reflects on the vegetal world and records his observations on plant life. His “A Wind-Storm in the Forests” is one of his essays that looks into vegetal life and their capacity of mobility facilitated by the outside forces. Storms are crucial in the sense that they promote vegetal movement, as Muir records (465). In this essay, he not only records vegetal movement but he also asserts that the negative and ruining impact of storms on plants are the proof of life in vegetation (473). This is because after the “so-called ruin of the storm,” he suggests that “never before did these noble woods appear so fresh, so joyous, so immortal” (473). Additionally, he perceives movement as a space for vegetal expression, in which individualities and singularities of plants are highlighted. This expression happens in the form of sounds or the production of fragrance which are unique for each species of plants (471). He believes that there are “varied gestures” that vegetation displays which enables to distinguish one species from the other even from

³ Muir has taken Burroughs to the lands where he has not visited before. He has made acquaintance with Yosemite Valley, the North Sierrita Petrified Forest and the Grand Canyon, which are the central geological places of the Western America, thanks to Muir in 1909 (J. P. Warren 202). They pursued their relations both in their writings and in person. In both situations, Muir seems to tease and argue with Burroughs. He challenges Burroughs in various ways which can, at times, discharge him. Their companionship was, sometimes, in good nature and sometimes in a vindictive manner. When the argument is about geology, Muir tended to harshly criticize Burroughs to develop a better knowledge of it. When Burroughs created a sketch of Yosemite Valley, he wrote a letter to Muir seeking for his advice. In return, Burroughs received a spiteful reply so as not to dwell upon it since he has not learned much about Yosemite. Even though, Muir criticizes him due to his “brazen ignorance” and Burroughs, in a similar manner, denotes his “Scotch pig-headedness,” they still meet half-way (204). The best is, according to Muir, is for Burroughs to pay a visit to Yosemite to study it better. As James Perrin Warren suggests, “Though Muir could seem like an obstacle, Burroughs continually sought his advice and approval as he drafted the essays inspired by the western trip” (204). Muir’s reflection on Burroughs might seem to be demeaning and enforce superiority. As James Perrin Warren also suggests, “Both Muir and Burroughs are really amateurs, no matter how much they know about mountains and birds. Neither one can truly claim absolute knowledge and authority for the way he interprets nature” (205). Burroughs does not simply accept his authoritative insights and hold on to them as the truth. Rather, he channels them into further study.

miles away (470). Parallel to Burroughs, He claims that these facts can be grasped in an “analysis when the attention was calmly bent” by the observer (470).

The other companion to Burroughs is President Theodore Roosevelt. He had an affectionate relationship to Burroughs, he praised his literary genius, and declared this to the public. He refers to John Burroughs as “Oom John” in his *Outdoor Pastimes of an American Hunter* (1893). Roosevelt starts the book with a letter written at the White House in 1905. In the dedicatory notelet, he addresses his friend Burroughs as “Oom John.” The nickname, meaning “Uncle John” in Dutch, was given to Burroughs while they were on a trip to Yellowstone National Park in 1903 (J. P. Warren 150). He starts the book by expressing his appreciation for Burroughs. Roosevelt pens, “Every lover of outdoor life must feel a sense of affectionate obligation to you,” and he follows “Your writings appeal to all who care for the life of the woods and the fields, whether their tastes keep them in the homely, pleasant farm country or lead them into the wilderness. It is a good thing for our people that you should have lived; and surely no man can wish to have more said of him” (Roosevelt V). His admiration for Burroughs can be observed in the lines above as stated by Roosevelt. His sincere approach portrays Burroughs as a “representative national figure, the avuncular nature sage” (J. P. Warren 150). In addition, his relations to Roosevelt poses him as a “literary mentor for the younger generation of nature writers” (J. P. Warren 12). Burroughs evidently remained influential in American schools during 1880s through the first quarter of the twentieth century (196). His endeavors as a nature writer, along with his relationships to prominent writers of that time, shape “a core literary tradition of nature writing in postbellum American literature” (12).

Nature-Fakers Controversy

As much as Burroughs carried on his positive relations with important names in history as already mentioned in the above section, he also had more spiteful ones with some others. Those others are the ones who, as Burroughs believes, lacked truthful information in their natural accounts (J. P. Warren 150). The twentieth century has marked the growing interest on nature writing in the United States of America. Many people were indulged in the profession of nature writing regardless of their background. The market was filled with emerging writers who produced countless nature essays and books. Some

works were successful while some were quite poor since most of them lacked a deep knowledge of nature or truthful accounts of observation. Many works were the products of imagination and fantasies of the writer, missing the essential facts of the natural world. Such writers generated a natural world with a falsified natural history which brought about a unanimous audience (Lutts 90).

In 1903, Burroughs attacked those “Sham Naturalists” in his essay “Real and Sham Natural History,” published in *Atlantic Monthly*. The blow was secured by President Theodore Roosevelt’s piece in *Everybody’s Magazine* in which he named them as “Nature Fakers.” Charles G. D. Roberts, Ernest Thompson Seton, and Jack London were among the names Burroughs attacked and they chose to remain silent during the quarrel. However, Dr. William J. Long robustly disrupted the silence in his defense. Against the attacks aimed towards his experiences in nature, he asserted that certain acts of animals that rarely happen do not mean that they are untruthful just because Burroughs himself did not witness them (Lutts 90-1). Roosevelt supported Burroughs in this matter of “warfare against the sham nature-writers,” and believed that it is “unpardonable for any observer of nature to write fiction and then publish it as truth” (V). In this conflict, Roosevelt took Burroughs’ side and congratulated him for representing “what can be done by the lover of nature who has trained himself to keen observation, who describes accurately what is thus observed, and who, finally, possesses the additional gift of writing with charm and interest” (V). The dispute of Nature Fakers has been crucial in defining the principles of nature writing for the circle of literary naturalists (Lutts 90). The standards require “literary naturalists [to] create emotionally satisfying literature that remains truthful to nature,” as Lutts suggests (96). Lutts further proposes, “Nature writing is a model for this union of observation and emotion, science and spirit, inner and outer environments” (97).

Critical Plant Studies

Representations of plant life and human-plant reciprocity portrayals in literature are gaining ground. As Woodward and Lemmer suggests, “At a time of ongoing drought in many parts of southern Africa, at a time when the burning of the Amazon forest has reached crisis proportions, paying attention to representations of plants and human-plant inter-connectedness in literature is timeous” (23). According to Woodward and Lemmer,

plant-human interconnectedness “gained international academic currency with the advent of the transdisciplinary *Critical Plant Studies* which has opened up new ways of reading in relation to plants, trees, crops and how they are imagined” (24). Issues regarding plants’ position in the social arena have been emerging. Questions such as “To what degree are non-human species social actors, strategic agents, and intelligent thinking and doing beings? How do social science concepts such as agency and personhood change when applied to plants?” lead philosophers and researchers into cultivating a “vegetative point of view” (Sheridan 39). Accordingly, Michael Pollan suggests to accept “the plant’s point of view” in the considerations of plant life (*The Botany of Desire* xvi). Such an approach allows to see the world of plants from their own perspectives. Michael Marder is one of the leading names of this field of criticism with his theorization and complications on vegetal life. His works, including *Plant-Thinking: A Philosophy of Vegetal Life*, published in 2013 and another work in collaboration with Luce Irigaray *Through Vegetal Being*, published in 2016, are the prominent works in this field, along with numerous articles and publications Marder produced during the course of years. Marder’s perception on plant life proposes a distinctive view to vegetation in which humanistic norms are separated from the plant life. Marder also proposes the necessity of perceiving the plant world from the plant’s perspective. He questions the meaning of the world for the plant, along with the plant’s relations within its world. In addition, Marder looks into the plant’s tendencies, intentions and requests in its life (*Plant-Thinking* 9). He separates the plant world from the human world and offers a plant-centric view to the life of vegetation. He suggests that “supplanting of the plant” would result in projection of “the human onto another form of life, often deemed to be *the* other form of life, or even the other of life in its fullest and highest manifestation” (“The Place of Plants” 191). As Marder writes, plants have a “non-conscious intentionality” which defines their relations with others and their tendency for growing (*Plant-Thinking* 12). Such perspectives are supported by non-anthropocentric studies which look into “epistemophytology” – the epistemology of plants (152). An ecocritical reading of Burroughs’ plants in the light of Michael Marder’s philosophy will create a renewed understanding of plants, marginalized due to their “otherness” caused by the conditions of “plant-blindness” (a concept put forth by Wandersee and Schussler) and “plant-phobia” (a term put forth by Marder) and provide a new perception of vegetal life (Woodward and Lemmer 23).

Michael Marder's *Plant-Thinking: A Philosophy of Vegetal Life* provides a new perspective to be utilized in the considerations of vegetal life. Marder examines "vegetal existence" which proves that the plant's "subjectivity, [is] drastically different from that of human beings" (9). He proposes the prominence of considering the vegetal world from the plant's point of view. For this purpose, the cue lies in leaving behind the anthropocentric views which tend to describe vegetation only through its relations or uses to humans. For Marder, the plant is "a being that is not at all distinguishable from becoming;" therefore, there are numerous tenets to look into for the considerations of vegetal life ("Our Future is Vegetal" 66). He examines the world of plants and their relations, growth patterns, capacities, activities, movements and transformations within the plant world. Additionally, the plant's tendencies, intentions and requests are also among the scopes that Marder looks into (*Plant-Thinking* 9). Marder's concept of "plant-thinking" proposes a way to perceive plants without attributing the virtues or utilities that Western philosophy has inclined to do. Thus, it can be inferred that plants "do not fit the ideal of metaphysical being" ("Our Future is Vegetal" 66). Their resistance to metaphysicality can be traced in their "capacity to grow, to decay, to change or metamorphose" (66). This way of thinking centers on vegetation, which was perceived as the other; however, does not force an identity on the plant. Rather, this mode of thinking revolves around "the impersonal, non-individuated *it thinks* underlying and subverting the ever-present synthesis of *I think*," which focuses solely on the plant (*Plant-Thinking* 12). Marder's work is comprehensive in terms of the fact that it provides an anti-metaphysical perspective of vegetal life, along with the vegetal qualities and capacities that are explanatory of vegetal existentiality. To do so, Marder's work is split into two parts which follow as, "Vegetal Anti-Metaphysics" and "Vegetal Existentiality." The first part of his work provides his remarks on plant life which is beyond metaphysical connotations, which were previously relied on in the Western philosophy with regards to plant life. The second part, leaving aside the metaphysicality of vegetation, centers on existential qualities of vegetal life. Their existence is examined through their relation to time, their scope of freedom, and their wisdom or sagacity, all of which are separated as three subtitles within Marder's work. Michael Marder's previous essays, such as his "Vegetal Anti-Metaphysics: Learning from Plants" (2011), "Plant-Soul: The Elusive Meanings of Vegetative Life" (2011), and "Plant Intentionality and the

Phenomenological Framework of Plant Intelligence” (2012) also provide a preview of the concepts that Marder delves into in his *Plant-Thinking*. The imprint of this work can also be seen in Marder’s other works and essays, which will be utilized for the purpose of this study. His “The Place of Plants: Spatiality, Movement, Growth” (2015), “The Weirdness of Being in Time: Aristotle, Hegel, and Plants” (2021), and “A Philosophy of Stories Plants Tell” (2023) are amongst the essays that provide a parallel perception towards plants via considering a variety of their existential qualities, such as their spatiality, temporality and language.

In defining the interest in the lives of plants, the inclination towards the animal-kind is to be considered. There has been a growing interest in the philosophical grounds for the “question of the animal” (Marder, *Plant-Thinking* 1). It has not only contributed to the field of environmental ethics, but also defined the position of humans in their relations to non-human beings. Studies on the field have brought out substantial insights as to how humans treat their non-human counterparts. Such an approach brings about a need for a novel perspective: “to extend the scope of ethical treatment and to address the diverse modes of being of all living beings, many of them deemed too insignificant and mundane to even deserve the appellation ‘others’” (2). As Marder suggests, even though animal kind has been set aside in Western minds, “non-human, non-animal living beings, such as plants, have populated the margin of the margin, the zone of absolute obscurity undetectable on the radar of our conceptualities” (2). The study of plants was left to the botanists, microbiologists and ecologists since life on the vegetal level did not seem worthy enough for critical thinking. In a time when scientific knowledge became liberated from the philosophical doctrine, plants in their existence seemed more underdeveloped when compared to the complexion of animal or human beings. This notion resulted in overuse and exploitation of vegetal beings. As it does not represent itself to be problematic, the presence of plants and their social relations were not largely contemplated on in the early modern age. Due to this strict line which separates vegetal life from human life, the value of plantal life has been overlooked and poorly judged (2-3).

Today’s post-humanist age moves toward the inclusion of plants as “autonomous complex life forms” into the social ecological life (Woodward and Lemmer 23). In an

attempt of rediscovering plantal beings as agents acting on in the world, social sciences are called for bringing out new ways of thinking. The critical focus on plantal life and behavior, namely “the plant turn,” provides a basis for scholarly input on the field of critical plant theory (Sheridan 39). It lies within the scope of “multispecies ethnography,” which facilitates a new perception “mov[ing] beyond human subjectivity to examine other living selves” (Kirksey and Helmreich 545; Sheridan 39). Multispecies ethnography has brought up new perspectives onto the anthropological readings of entities other than humans. Non-human living beings were “confined in anthropological accounts to the realm of *zoe* or ‘bare life’ – that which is killable,” but now they “appear alongside humans in the realm of *bios*, with legibly biographical and political lives” (Kirksey and Hemreich 545). Ethnobotany emerges as a field that studies plant life. Prospective ethnobotanists accept “plants as social beings with agentive efficacy” (554).

The field of phytography deals with “human writings about plant lives as well as plant writings about their own lives” (Ryan, “Writing the Lives” 97). Through “botanical imagination,” in the form of a dialogical narrative, “we envision plants as auto|biographical subjects, so they imagine us back in an interplay of imaginings; as we write the lives of plants, so they write their own lives—and ours (100). Phytography, which is a form of posthumanist life writing, prioritizes plant communities and their individual traits. In order to perform a phytophilic life writing of plants, the writer stands as the observer who meticulously senses and listens to their surroundings, in which the humankind is engaged in an interdependent and interactive relationship with the vegetal world. Such endeavors boost “human awareness of flora between a preoccupation with *botanical life* ... and an embracing of *botanical lives* (100-1). Phytophilic works present vegetal life through various standpoints. These are, as Ryan specifies in “Writing the Lives of Plants: Phytography and the Botanical Imagination,”

particularization (attention to individual plant characters), percipience (plants as intelligent, responsive, and agentic beings), corporeality (plants as embodied individuals located in time and space), temporality and seasonality (the changeability of flora over time and seasons), emplacement (the influence of place on plantness and vice versa), language and signification (the interpellations, interpolations, and communicative modalities specific to vegetal life), historicity (the intertwining of botanical and human histories), and mortality (the decline and demise of plants as meaningful events prompting human mourning, memorialization, and elegy). (99)

More-than-human lives, specifically the one of plants, find voice in the narratives of phytography. This manner of writing uncovers the intricate rims of plants and plant-*Umwelt* engagements. The *Umwelt* is explained as the relationships each organism builds in “a different dialogue with its environment, determined by what it needs, how it perceives, and the potential behaviours it has at its disposal” (Calvo). In *Umwelt* relations “the individual is the centre” of its world (Calvo). An example of a nonfictional phytographic work is in Aldo Leopold’s “Good Oak,” a section in *A Sand County Almanac* published in 1949. The log of the oak is burning in Leopold’s fireplace as he recalls this arboreal body. The past life of the oak, evidently, is cherished even in its death. As Ryan asserts, “the tree retains narrative voice ... Even as it is consumed by the fire, the oak remains an emplaced presence with an identity constituted in space and time” (“Writing the Lives” 104). In a similar manner, John Burroughs also pays attention to the plants’ particularization. In a section in *Signs and Seasons*, he remembers a species of a plant which he came across around Moxie Lake, named horned bladderwort. He specifically notes a peculiar trait of the plant that has caught his attention. It was the fragrance of the plant which he describes as “the richest and strongest perfume I have ever found in a wild flower” (125). According to Burroughs, the trait is outstanding and it dwells in the memory of a person who has made its acquaintance. Therefore, not mentioning this feature would seem as if “one should describe the lark and forget its song” (125). Through this narration, Burroughs’ plant also finds its voice with a trait that proves its particularization.

A critical perspective upon plantal participation in more-than-human territories would facilitate a better understanding of “sociality beyond the human” (Besky and Padwe 10). The word “social,” comes from the Latin word *socius* which means a company or an associate. The stem of the word *seq* comes from *sequi* which means “to follow.” Even though, the term “social” is diminished to be associated with humanistic notions, it actually has a broader scope. De Candolle, who was a plant sociologist, believed that “corals, baboons, trees, bees, ants, and whales are also social” (Latour 6). This broader understanding of the term “social” was widely accepted by the field of sociobiology. As Lewis-Jones puts it by integrating the plant kind to the area, “foregrounding plants and their vegetal sociality and botanical subjectivity” is becoming crucial in the field of social sciences for the purpose of “decenter[ing] the human, and to better comprehend the more-

than-human, [since] it seems that plants and their modes of being have distinct contributions to make” (2). A critical approach to plantal behavior and relations prove that plants are dynamic beings which maintain complex interactions within their environment on the basis of their “plant ontology” (Marder, “Resist Like a Plant” 30). These interactions stem from their “plasticity,” through which they adapt themselves to the potential variables that they may be faced with in their close environment (30). Every living being understands the world through their senses. Basic tasks such as adapting to new environments or defending themselves in order to survive are accomplished through senses. It is appropriate to say that “all living organisms are intrinsically sensitive creatures and it would seem truly oxymoronic to define anything alive as insensitive” (Gagliano 148). Still, plantal life has been overlooked because it is considered as passive and far from being sensitive.

To extend on the perspectives towards plants and life on a vegetal level, some of the earliest Greek philosophers believed in the inclusion of plants into the sensorial territory. Empedocles (495-435 BCE), Anaxagoras (500-428 BCE) and Plato (427-347 BCE) agreed that plants were not different from their animal counterparts in regards to being sensitive (Gagliano 148). However, Aristotle (384-322 BCE) was the one who primarily believed that plants were not sensitive beings. He separated plants from the animal kingdom based on “plant *insensitivity*” (Gagliano 148). This zoocentric Aristotelian view mediated the ways vegetal life is perceived, thus resulting in “a *default position* of [plant] exclusion” (Hall, *Plants as Persons* 37). This perspective was prevalent until the seventeenth century, before it was challenged by the studies of experimental botanists which claimed otherwise. Plants’ ability to photosynthesize is a commonly known natural phenomenon. In order to collect as much sunshine as possible, plants perform certain maneuvers to adjust their stems and leaves which is facilitated through a combination of certain hormones, photoreceptors and internal signals. This intentional tendency of solar sensitivity is called phototropism. This certain behavior is a known fact and it was also observed and examined in the past. Theophrastus of Eresus (371-285 BCE), one of Aristotle’s disciples, thoroughly examined the phenomenon. However, he strictly followed Aristotelian dogmas. Regardless of his personal findings on the behavior, he maintained his perspective on the inactive and insensitive state of plants. Sir Thomas Browne (1605-1682) with his experimental studies on botany was one of the first names

of the seventeenth century⁴ whose perspective granted plantal sensitivity. Forming the baseline for the scientific notion of plant sensitivity, he put forth that plants tend to move towards the sun with their shoots (Gagliano 148).

Even though Browne accepted plant sensitivity, he did not scientifically mention it in his studies. These movements were still seen as performed by certain mechanisms fueled by plantal growth. Thus, another century would pass in order to accept plants' sensitivity to light. Gagliano provides a follow-up timeline for the succession of this notion starting from the eighteenth century,

Henri Dutrochet (1776–1843) had already proposed that phototropism was an endogenous response of plants to light, but it was not until the 19th century that Julius von Weisner (1838–1919) finally demonstrated the inductive nature of the response and Charles Darwin (1809–1882) postulated that a substance produced in the shoot tip of a seedling must induce the curvature in the lower regions of the plant, such that the bending response occurs. In the following century, the 'substance' Darwin thought was implicated in the phototropic response was eventually discovered by Frits Went (1863–1932) as the first plant hormone, auxin. By the time World War II was over, we had learnt that plants were not only capable of detecting light, but also 'seeing' its different colors (through photoreceptors known as phytochromes) ... and even measure how much light they received each day (i.e., photoperiodism).⁵ (149)

It is evinced that plants "like all *living* organisms, are very sensitive and active, monitoring and integrating lots of parameters from their environment and using numerous signaling systems to sense, assess, respond and even facilitate each other by *actively* acquiring information from their surroundings" (Gagliano 149). Following the scientific findings, there is an evident shift towards vegetal life in literary discourses. In the conversations regarding plant communities, new terms such as "plant personhood" emerges, as advocated by Matthew Hall (*Plants as Persons* 105). In addition to Marder's

⁴ To expand on the studies on vegetal life, English botanist William Turner, who is considered as the father of English botany, is pivotal in the field with his *Libellus de re Herbaria Novus* (1538) and *The Names of Herbes* (1548). In addition, Spanish botanist Nicolas Monardes contributed to the field of botany in the sixteenth century. Belgian botanist, Rembert Dodoens' *Cruydeboeck* (1554) is also an important botanical study of plant lives. English herbalist John Gerard's *Herball, or Generall Historie of Plantes* (1597) is another work that looks into plant life in the late sixteenth and early seventeenth century.

⁵ The term was first introduced in 1920 based on the "extent of biological impact of day length as a factor in plant development" by Garner and Allard (A. C. Leopold 247). The term refers to the processes that the plant goes through in relation to the length of the day.

contribution on the field, Matthew Hall's *Plants as Persons: A Philosophical Botany* published in 2011 is another influential work belonging to this territory. Exploring vegetal life, Hall offers a new perspective to plants and proposes "personhood" for plantal beings. Hall looks into personhood traits that are applicable in the acknowledging of plants as persons. According to Hall, it is important not to confuse the term "personhood" within anthropomorphic terminologies (105). It does not mean projecting human traits to non-human beings or it does not mean confusing persons with animate or inanimate objects. Being a person, as Hall argues, is having the will to pursue the state of being alive. Accordingly, as Graham Harvey suggests "To be a person is to want to continue living" (16). Plants are, in this sense, persons who wish to live and survive. Hall writes that, "As persons, plants are not naively thought to have human faculties. They are understood to be living beings with their own perspective, and with the ability to communicate in their own way. Personhood thus emerges from a focus on relating and the recognition of shared volition and intentionality in natural beings" (*Plants as Persons* 105-6). John Burroughs also refers to the presence and efflorescence of vegetal life in the wilderness as "peopled" (*Under the Maples* 12). He points out to the crowd of vegetation and the fact that a human is not alone in nature when they think that they are unaccompanied in solitude. Rather, the natural places are "peopled" with many species of vegetation (12).

Matthew Hall, makes use of animism, especially indigenous animisms, in his discussions of plant personhood. Animism can be explained as "the belief either that all natural things and phenomena are alive, or that they possess an innate soul or spirit" (Nelson 55). Animism stands out as a reaction to the "reductionist approaches to nature" by the Renaissance thinkers (55). New animism looks into traits that define persons who are not limited to humankind only. The word "person" brings about "a heavy load of meanings, associations, possibilities and potentiality" (Harvey xvii). Western philosophy tends to categorize, classify, instrumentalize, and therefore, demean plant life. Such approaches look at plants as inactive and lifeless objects. However, in new animist perspectives, the main focus is to make differentiations between objects and persons. Accordingly, Henry More discusses that plants and animals are far from being mechanical beings. They have more in their systems of living which entails being not mechanical or systematical (Nelson 55). Animist perspectives "recognize that the world is full of persons, only some of whom are human, and that life is always lived in relationship with others" (Harvey xi).

In animism, all entities which are active and form social relations with their surroundings are considered as persons. While the older version of animism looks into deciphering what is alive and what is not in regards to elements that define being alive, the newer version highlights that there are persons, “not all of whom are human” (xi). The main purpose of new animism is to introduce the concept of “personhood” which applies “not only to humans and human-like beings ... but to a wider community” (xii). Irving Hallowell coined the term “other-than-human persons,” in order to widen the scope of persons who are not only limited to include humans (Harvey xxii). Hallowell bases the terminology on his research on the Ojibwa of North America. Hallowell suggests that the Ojibwa refers to natural beings as “living ‘persons’ of an other-than-human class” (Hallowell 27). Therefore, from the perspectives of the Ojibwa, plants and animals are also accepted to be persons. The acceptance of persons as including all members of the natural community “necessitates a heterarchical continuum of persons rather than the construction of ontological hierarchies” (Hall, *Plants as Persons* 105). The exclusion of hierarchy is crucial for animism since it leads the way for an equally heterarchical acceptance of all persons, without categorizing them in regards to certain anthropocentric views.

In the considerations of plant behavior systems, the concept of “personhood” is taken into account. The term refers to a “pervading concept – for as persons, plants are recognized as volitional, intelligent, relational, perceptive, and communicative beings” (Hall, *Plants as Persons* 100). In considering plants as beings which are free, it is equally crucial to integrate plant persons into the discussion about plant acts and relations. The encompassing concept of “personhood” is strengthened by the inclusion and recognition of the plants “as kin” (100). The concepts of kinship and personhood are interrelated. In this sense, seeing them as kin promotes their perception as persons. Matthew Hall asserts that the “acknowledgement of personhood and the use of plants are not incompatible” (105). In animistic perspectives, the widely accepted principle is that “the plant, animal, and human realms interpenetrate” (Hall, *Plants as Persons* 100). The existence of a “shared heritage and substance” amongst the communities of all persons proves that there is kinship between all members of the natural world, including humans, plants, and animals (100). Animistic perspectives attributes importance to “relatedness and autonomy,” which are pivotal in the “application of the term *person* to beings and

phenomena that stretch way beyond the human” (Hall, *Plants as Persons* 105). These two tenets are considered as the milestones of “personhood.” The word “person” is not used to carry on a metaphorical meaning. Rather, animist worldviews see “other beings ‘as proper persons’” (105). In describing persons, Irving Hallowell’s insights on the subject is widely used. Hallowell learnt from the Ojibwe tribe that “the world is full of people, only some of whom are human” (Harvey 18). In the considerations of personhood, it is not an accurate approach to attribute humanistic traits to all persons. Thus, “To be a person does not require human-likeness, but rather humans are like other persons,” which is an umbrella term for other members of the group such as “human persons, rock persons, bear persons,” and eventually, plant persons (18). Harvey uses Hallowell’s terminology of “persons” and defines it as follows, “Persons are those with whom other persons interact with varying degrees of reciprocity. Persons may be spoken with. Objects by contrast, are usually spoken about. Persons are volitional, relational, cultural and social beings. They demonstrate intentionality and agency with varying degrees of autonomy and freedom” (Harvey xvii).

Animism also found its way in the United States, as can be seen in Thoreau’s writings. In accordance, Nelson gives the example of Thoreau and Burroughs, whose writings provide animistic perspectives (55-6). Thoreau recalls his encounter with the woods in *The Maine Woods* (1881) which puts forth his animistic perspective. He experiences a great light coming out of a tree which mesmerized him and he “rejoiced in that light as if it had been a fellow-creature” (186). Pointing out to the vivacity of the woods, he perceives the tree as his fellow. He goes on to state that “there was something to be seen if one had eyes ... I believed that the woods were not tenantless, but choke-full of honest spirits as good as myself any day” (186). According to Nelson, Burroughs also provides an animistic point of view towards nature as can be evident in the lines where he sees it as “a huge organism pulsing with life, real and potential” (qtd. in Nelson 56). Burroughs suggests that humans “feel a kinship with ... tree and flower” (*Field and Study* 27). This kinship entails the existence of the “same life principle that has brought us where we are and relates us to all living things” (27). Burroughs believes that life brings together the elements in nature. He suggests that both in plants and humans, the “same mysterious gift of life” prevails, in which “the same primary elements – carbon, nitrogen, oxygen” are shared by the plant and the human, in the same way that “vital functions – respiration, circulation, absorption,

assimilation, reproduction” are shared (*Under the Maples* 9). This shared principle of life brings all beings in nature close to one another. He also refers to wisdom as being “ancestral knowledge,” which has been transferred across centuries of a species’ ancestry (*Field and Study* 136). These aspects propose a parallel view to animism since these lines suggest that the worlds of plants and humans “interpenetrate” which means that they become connected to one another via their interrelations and kinship (Hall, *Plants as Persons* 100). Burroughs also underlines the strong bond with vegetal life by asking “How can a man take root and thrive without land?” in which the human kind builds “friendships with ... his trees, the satisfaction in his growing crops, in his improved fields” along with the human’s elemental connections and “cooperations with the cloud, the sun, the seasons, heat, wind, rain, frost” (Burroughs, *Signs and Seasons* 245). It can be inferred from these lines that human beings are in deep connections and relations with the surrounding environment, as well as the other-than-human members of the earth community.

Michael Marder avoids from animism or new animism in his *Plant-Thinking*. He proposes an encounter with the plant world in order to understand plant life better. Yet, a slight similarity can be drawn in perspectives that define animism and Marder’s “encounter”⁶ since the former also deals with “encountering a person or an object” and making a distinction between the two in terms of which one is alive or not (Harvey xi, Marder, *Plant-Thinking* 7). While Marder focuses on vegetal vitality and modes of vegetal beings which stem from liveliness and mobility of the plant in *Plant-Thinking*, he refrains from animism and animist discourses. While Matthew Hall presents animist cultures and their perspectives towards plants, Marder stays more on philosophical and scientific grounds. The reason for Marder’s stance is because animism also deals with the issue of the soul. On that note, Marder steps away from the topic since he has “grown deeply mistrustful of the metaphysical and theological baggage weighing down this old-fashioned word, this paleonym: the soul” (“Plant-Soul” 83). Marder is against the metaphysical meanings that are attributed to plants since he sees plants as “the least metaphysical” entities (83). Therefore, his stance requires a perception that is on “more neutral terms,” which uses

⁶ The concept of “encounter” with the plant world, as proposed by Marder, is further discussed in the following pages.

science and stays on subjective grounds (83). In accordance, this study also handles vegetal beings as independent entities from metaphysical attributions.

Even though Matthew Hall heavily bases his research on plants by reflecting them as persons, Marder stands on the opposite site. Marder believes that “It would be unwarranted to presuppose that subjects are necessarily autonomous or identical to “persons” and to build a theory of plant subjectivity upon this shaky supposition” (“Plant Intentionality” 1365). He supports that it would be reflecting “excessive anthropomorphism” to apply personhood to the subjectivity of the plant (*Plant-Thinking* 8). Thus, he attests that it is “neither necessary nor helpful to insist ... on the need to attribute” personhood traits to vegetal beings (55). Regardless, Hall continues on the claim of plant persons even though Marder strictly refrains from the concept of personhood (Hall, “How Plants Live: Individuality, Activity, and Self” 319).

Although Marder does not include new animism or animist cultures and their perspectives on plant lives in *Plant-Thinking*, his recent studies are more inclusive of animist cultures and their plants. For instance, his very recent essay “A Philosophy of Stories Plants Tell,” published in 2023, include animist and Hindu religious scriptures that present vegetal stories. Marder, further, includes *Bhagavad Gītā*, a Hindu scripture that includes perspectives on plants (194); *Brahman*, which gives the account of the forest and plants (199); indigenous forest or wood spirits, such as the Roman *Silvanus* or Basque *Basajaun* – guardians of the forest (198). Therefore, it can be asserted that Marder’s stance towards animistic cultures becomes more flexed, as can be seen in the incorporation of above mentioned texts and spiritual entities.

In the discussions about vegetal life and behavior, it is crucial to integrate the term, agency. Plantal agency, as a notion, derives from the studies of the field of Actor Network Theory (ANT) which deals with “material semiotics” (Law 142). Latour, contemplating on this post-structuralist theory, believes that “entities only exist as nodes in networks of relationships ... and entities such as plants and people only have characteristics resulting from relationships with other entities” (Sheridan 39-40). Some entities have more agency in influencing others in their territory. The term “actant,” coined by Latour, is used for such beings (Harman 14). A number of entities, both human and non-human, are considered as “actants” in terms of Latour’s terminology. To be more specific, in Latour’s

own examples, even “pine trees” or “strawberries” can be “actants” (16). In addition to that, in terms of ANT, the entities’ material physicality is also an important factor in determining how effective an actant is. This distinctive material feature can be seen in a dandelion and a sequoia which are quite different from each other (Sheridan 40). John Charles Ryan discusses plants’ capacities in terms of “intrinsic” and “extrinsic” qualities. Intrinsic capacities “refers to those attributes generated actively by plants in relation to their surroundings,” while the latter encompasses “capacities registered as environmental elements or other living beings exerting force upon plants” (“Tolkien’s Sonic Trees” 129). Such dichotomies lead the way for an additional perception of plant life which categorize them as active agents or passive and silent beings.

All beings in nature have equal value. Regardless of their race, every member of the environment, whether sentient or non-sentient, belong to the same environmental community. All forms of life on earth are important and have intrinsic value of their own. Aldo Leopold’s “Draba” in *A Sand County Almanac* is reflective of the understanding that each living entity is equally worthy. Draba is a small flower that is usually overlooked and unseen in nature. It is simply white in color and does not have a particular smell that captures the mind. Leopold states that “Botany books give it two or three lines, but never a plate or portrait ... No poets sing of it. Some botanist one gave it a Latin name, and then forgot it” (26). Despite its invisibility in human discourses, it is abundant in nature and easy to find if it is specifically looked for. Regardless, it is “just a small creature that does a small job quickly and well” (26). It pursues on living and blooming as it is supposed to in nature. Accordingly, no matter how small or unseen or silent they may be, all beings including, protozoa, arachnids, animals, and plants are relatable. Plants are ubiquitous, for this reason, most of the time, their presence goes unnoticed, similar to the account Leopold provides for his Draba. This is due to the concept of “plant blindness” (Balding 1193). The term “plant blindness” was first coined by Wandersee and Schussler in 1998 (Wandersee and Schussler 3). It is defined as,

the inability to see or notice the plants in one’s own environment—leading to: (a) the inability to recognize the importance of plants in the biosphere, and in human affairs; (b) the inability to appreciate the aesthetic and unique biological features of the life forms belonging to the Plant Kingdom; and (c) the misguided, anthropocentric ranking of plants as inferior to animals, leading to the erroneous

conclusion that they are unworthy of human consideration. (Wandersee and Schussler 3)

Since Aristotelian times, even though there have been various studies and breakthroughs, plants have still been ignored because they are seen as inactive and insensitive organisms. This blindness is due to anthropocentric cultures which disregard plants. Human beings make use of various “approaches to the world of vegetation at their disposal. More often than not, we overlook trees, bushes, shrubs, and flowers in our everyday dealings, to the extent that these plants form the inconspicuous backdrop of our lives” (Marder, *Plant-Thinking* 3). Similar to a background noise, plant life becomes unnoticed and inconspicuous in humans’ lives. Humans are indeed very familiar to plants, since plant life is the most domineering form of life on the face of the earth. As Trewavas states, plants “represent 99% of the biomass of the Earth” (“Mindless Mastery” 841). However, no matter how wide plants extend spatially on Earth and how familiar humankind is to plants, this familiarity causes plants to be almost invisible to the human eye. As much as they are close to humans, in a similar way, the distance between plants and humans widens. As Marder puts it in *Plant-Thinking: A Philosophy of Vegetal Life*, “the absolute familiarity of plants coincides with their sheer strangeness, the incapacity of humans to recognize elements of ourselves in the form of vegetal being, and, hence, the uncanny—strangely familiar—nature of our relation to them” (4). According to Marder, humans “encounter” plants (8). Nonetheless, this encounter is not thorough if the approach is instrumental. Marder demonstrates when and how people actually encounter plants. In his work, he exemplifies an encounter with a sunflower and contemplates on it. His philosophical findings on how to encounter plants liberate plants from nominal and instrumental attributions. As he suggests,

[Such instances of encounter] leave just enough space for the sunflower to grow without trimming it down to an object readily available for the subject’s manipulation, without assigning to it extraneous purposes, and without putting undue emphasis on the knowledge of its genetic makeup or evolutionary-adaptational character. Faced with a sunflower, they would resist the easy and obvious generalization of this plant as a unitary organism and would instead joyfully submit thinking itself to the ambivalence of the flower that is both one and many, consisting as it does of a myriad small florets clustered together, yet relatively independent from each other and from the community of beings we know

as a sunflower. Succinctly put, they create the philosophical infrastructure for our encounter with plants. (*Plant-Thinking* 7)

The tendency of turning a blind eye to natural beings, which are non-responsive or conceptually distant in terms of their relation to humankind, is not a proper attitude according to Marder. All beings are to be seen and heard equally. Human-centered minds require conscious and constant effort to understand and listen to the beings in nature. Gaard states that “children are taught from an early age not to receive—and certainly not to trust—the information being sent continuously by the animate world that surrounds us ... In contrast, indigenous cultures around the world have stories of trans-species communication and even kinship, ancestry with earthothers” (Gaard xix). Within the scope of the term, “earthothers,” Gaard includes all species and entities on earth ranging from animate to inanimate objects. All species living on earth belong to the same eco-community and they deserve to be seen and heard equally (xix). The earth “behaves more like a living organism than like a rigid insensate sphere,” as Burroughs attests (*Under the Maples* 169-170). Thus, all the members on the living earth form interconnected relations. Trees and plants, no matter how silent they may have seemed, have strong connections and relations both to humans and to one another. John Burroughs believes that the humankind is connected to nature in a way that is “so delicate, so constant, so harmonious, so all-embracing” (*Field and Study* 304). Humankind is connected with the other members of the environmental community through “the air, through gravity, through light, through climate, through geology” since all forms of life share the same resources of the earth (304). He also cherishes actively forming a connection with nature, as well as recognizing the entities’ own connections and relations. He emphasizes the significance of “direct contact with the soil and with the elements,” in addition to acknowledging and respecting the “privacies with nature, with bird, beast, and plant” (*Signs and Seasons* 232).

The notion of “coherence,” which is used in various frameworks such as philosophy, linguistics and science, can easily be applied to define the interrelated interactions across the vegetal world. In essence, coherency suggests a web of relations across diverse systems which has a connective power to form collective associations. The term comes from the Latin version *cohaereō* which means “to cling together, to be closely connected

with, to be in harmony” (Gagliano 153). As the term suggests, the plantal world is also in a web of coherent relationships. As Gagliano denotes,

facilitative interactions amongst plants are ubiquitous and the influence of facilitation is an important element in regulating the composition and diversity of whole plant communities. Indeed, many plants literally ‘help’ each other by improving growth, fixing nitrogen, nurse cropping, controlling pests or attracting beneficial organisms such as insects or mycorrhizae. Similarly but at the deeper level of function, coherent processes in plants underpin the capacity for photosynthesis and possibly sound production. (Gagliano 153)

Such relations can be found, not only on a plantal level, but also in various forms of life, ranging from the basic cell structures to human-animal communities. Correlation and cooperation within the same species or across different species in a coherent manner is indeed quite common in nature. As Gagliano proposes “despite the general idea that biological evolution is the outcome of fierce competition among selfish parties, the evidence indicates that, paradoxically, the very competitive evolutionary process of natural selection involves cooperation” (153). It can be inferred that the relations across the lower modes of beings such as plants are more dependent on cooperation; and less on conflict or rivalry. Through this form of interaction, they form a larger community in which they function interdependently which nourishes natural diversity. To gain a broader perspective on the social dynamics of plantal life, understanding and accepting “Collaboration, coherence, relational beings, and interdependence – the very nature of plant-being” is crucial (Lewis-Jones 2). Such perspectives would nourish “philosophical texts inspired by nascent (as well as traditional) understandings of plant subjectivity” (2). In relation to this, Burroughs highlights that there is a unity between these individual members of the earth community. He remarks that “whatever is on the earth and shares its life is of the earth, and ... came out of the earth, the highest not less than the humblest creature at our feet. I like to think of the old weather-worn globe as the mother of us all” (*Leaf and Tendril* 219). These notes illustrate his holistic approach collecting members of the environment under the roof of an earth community. Each one has no lesser value than the other. All is within a cycle that adds up to a unifying whole. Within this organic system, as Burroughs suggests, “the plant in its cell structure, in its circulation, in its intelligence, or in its ingenious devices to get on in the world is dreaming of the animal, and the animal is dreaming of the spiritual, and the spirituality of man touches the

spirituality of the cosmos, and thus the circle is complete” (235). Each member affects one another mutually. In this web of relationships, plantal life is an essential part and Burroughs’ works presents his involvement in the vegetal world. Burroughs’ approach to nature supports Gagliano’s view of “this ‘alternative’ perspective on the nature of plants (which clearly are anything but insensitive) as well as the nature of Nature (coherence and cooperative interactions amongst apparently competing parts – whether microbial, vegetal or animal – make Nature’s fabrics)” (153). Plants are, in this regard, “the most exquisite examples of coherence in Nature,” and therefore, “our blindness towards these organisms is no longer excusable” (154).

In this context, it is important to discuss Peter Wohlleben’s *The Hidden Life of Trees* published in 2015. In this publication, he presents his perspectives on life on the plantal level, and especially trees, gathered through years of observation. His experience with nature is through his occupation as a forester in the Eifel mountains in Germany. His time in the forest has developed his perspectives on natural life, especially in the forest (Kingsland 1). He believes that “When the capabilities of vegetative beings become known, and their emotional lives and needs are recognized, the way we treat plants will gradually change” (Wohlleben 244). He argues that trees are connected to one another via various means. There is a connection between the species stemming from nutrition sharing. They exchange nutrition, according to scientists, either through their fungal containing root tips or root systems which are intertwined with other bodies (2). Trees pursue an interconnected way of living with other trees. Individual bodies of the same species flocked around the same area are linked to one another via their roots. Nutrition sharing is inevitable when the roots are connected. This shows that trees are friendly in their neighborhood. They form social relations which are instinctive. According to Wohlleben, the reason for being social is, indeed, quite similar to the formation of social human communities (3-4). Simply, it is due to the fact that cooperation is more advantageous. A lonely tree is not as tenacious as a crowded forest since it cannot sufficiently stabilize its local climate. However, when accompanied by many others, they can sustain a favorable living condition which supports their unique ecosystem. In such an environment, the ecosystem can balance the temperature, and promote the water supply and humidity which generate suitable conditions for the trees’ endurance. To achieve this, every tree in the community sticks together. Through this unification, the

tree community can live long enough to reach very old ages. For the sake of the tree community, every individual body is important. To keep the community alive, it is expected to take care of the unhealthy ones. Therefore, other trees assist the sick ones until they rewind back to their healthy state (3-4). Trees form “friendships,” according to Wohlleben (5). In their form of friendships, they grow in accordance with their friends so as not to limit their growth in any way. They do not stretch their branches so far and so thick which would cause the other not to find adequate space for its own branches to grow and get enough sunshine. These partners are so close to each other that their roots are also quite intertwined. Sometimes, when one of the close friends dies, the other one also dies. If they have some strong branches looking in the direction of another tree, it can be understood that those branches are directed to their “non-friends” (5). Holding relationships and connectedness is possible for naturally grown forests during the course of time. However, this is not the case for planted forests which are created in time by human efforts. Wohlleben states that roots of those trees “are irreparably damaged when they are planted” therefore, “they seem almost incapable of networking with one another. As a rule, trees in planted forests like these [a majority of coniferous forests located in Central Europe] behave like loners and suffer from isolation. Most of them never have the opportunity to grow old anyway” (5).

Another point Wohlleben elaborates on is the language that vegetation uses for communication. It is not the traditional sense of oral and verbal communication that trees pursue. One might hear the branches creaking and leaves rustling. However, it is owing to the wind that the tree is able to produce these sounds. It is not intentional and solely produced by the tree. Rather, they make use of scents in order to communicate. As an example, Wohlleben presents the umbrella thorn acacias in the African savannah. Those trees, as a group of scientists discovered, release some intoxicating substances in order to save their leaves and branches from getting eaten by giraffes. The gas that is released is ethylene, to be specific, which acts as a warning signal for the neighboring trees. The scent gets carried away by the wind and reaches others. This way, the other trees can also release their own toxicity to protect themselves. Thus, since the message is delivered to the nearby trees, giraffes pass around a hundred yards away to feed on others which are unaware of the danger. This shows that the interactions on vegetal life are beyond ocularcentrism, beyond the physical appearances. Electrical signals are passed through a

tree's body when it is in danger. Unlike humans' signaling systems that transmit the message within milliseconds, the trees' systems are at a slower rate which covers a third of an inch per minute. However, it does not mean that the tree is not aware of the threat it is going through. It still releases its own chemicals to save parts that makes up its whole body (7). Vegetal communication through scents show that this form of interaction is intentional. As Wohlleben states, the scent that is released is not done so accidentally. They attract nearby bees to collect their nectar. In a similar manner, colorful flowers are also appealing signaling their readiness for being dusted (12).

The vegetal world's unification and pursue of a social life is also through the root systems. While some trees may seem as loners in the forest, they indeed form relationships with the other neighboring trees. They share essential information about their health through their roots that are intermingled with the others. It is the case for every tree in the forest since their message is transmitted through fungi on their root tips. No matter if a tree is social or antisocial in terms of having connected root systems, the message is still conveyed through fungi (Wohlleben 10). This relation is based on Suzanne W. Simard's discovery of plant life's connections on a root basis through the mycorrhizal linkages (Rhodes 331). These Common mycorrhizal (mycelial) networks are called as the "Wood Wide Web," which means two or more plants are interconnected through fungal mycelia (Rhodes 333). In *Finding the Mother Tree*, Simard explains that trees "are in a web of interdependence, linked by a system of underground channels, where they perceive and connect and relate with an ancient intricacy and wisdom that can no longer be denied" (4). These plants do not necessarily belong to the same species. Distinctive plant species inhabiting the same area are connected to one another through these fungal threads (333). According to Gorzelak et al., "The MN [Mycorrhizal Networks] can thus integrate multiple plant species and multiple fungal species that interact, provide feedbacks and adapt, which comprise a complex adaptive social network" (1). Paco Calvo, in *Planta Sapiens*, suggests that "Roots create an interconnected signaling web between plants, where unseen messages pass between drought-stressed individuals and those assailed by the attentions of herbivores to allow their neighbors to take pre-emptive action" (Calvo). Similarly, John Burroughs also presents a connection that he found between different plants. Even though the scientific findings such as MN were not clearly established in the time of Burroughs' nature writing, his findings of connections and messages conveyed

through the roots of certain trees are indicative of the network of “Wood Wide Web.” In *A Year in the Fields*, Burroughs mentions a relatively young hemlock tree that “established upon the end of a large and partly decayed log” (192). As he observes, the hemlock “sent its roots down into the log” (192). By connecting to the log and to its roots, the young tree discovers that the perishing log was indeed drawing its life source directly from the water from a lake. Therefore, sharing an intel of the existing source, the young tree portrays a similar behavior of growing roots so long that it can reach the lake nearby (192). Another example that Burroughs presents that evokes the interconnection between plants is given through the relations different species of trees build in *Signs and Seasons*. He attests that “Both the pine and the hemlock make friends with the birch, the maple, and the oak” (47). This friendship, which may be the rootlets that connect under the soil, shows that these trees present a similarity through their exteriority. As Burroughs illustrates “these intermingled trees,” behave in accordance with one another which is reflected in their foliage as “a combination of colors like the richest tapestry, the dark green giving body and permanence, the orange and yellow giving light and brilliancy” (47).

Within the aforementioned context, this study examines plantal, vegetal and arboreal beings in John Burroughs’ *A Year in the Fields* (1875), *Signs and Seasons* (1886), *Field and Study* (1919), and *Under the Maples* (1921). It looks into the modes that define and prove their vitality. This study also aims to look into plants’ modes of being, along with their relations to other beings and elements in their environment within the scope of Burroughs’ selected works. Similar to Michael Marder’s proposal of perceiving the plant world from the plant’s perspective, Burroughs also proposes the prominence of finding “the reason of things in the things themselves” (Marder, *Plant-Thinking* 9; Burroughs, *Field and Study* 269). In doing so, Burroughs highlights the importance of understanding vegetal life through burrowing “into the current of it and see[ing] its characteristics and by-play” (Burroughs, *Field and Study* 197). These specific four collections are chosen for the abundancy of plant species within them. These works portray a range of Burroughs’ plants from the littlest ones, such as grass, to the giant ones such as the oak. Another reason for this choice is to reflect Burroughs’ writing style which has also shifted and been transformed throughout the years. The more he articulated around the topic of observation, the more his writing style began to bear familiarities with the theme. As

Black also suggests, “As Burroughs’ fluency with nature and its language of facts grew stronger, so his work became much more his own, his prose style more distinctive” (68). His essays, mostly, have become more down-to-earth bereft of abstract and metaphysical remarks, which were imposed by Burroughs’ composition style under the influence of Thoreau and Emerson. Rather than the abstract and phenomenal thoughts, his essays and collections reflected “the cadences of a poet and the facts of the world gathered from direct and exacting observation (68-9). Through the selected texts of Burroughs’ in this study, his set of mind and his advanced perception can be traced. Initially, utilizing his observations, he moves to more philosophical gatherings. His works represent the transmission of the perceived facts into deeper meanings throughout the years of Burroughs’ lifetime as reflected on the collections. *A Year in the Fields* and *Signs and Seasons* represent Burroughs’ observations of plant life, alongside animal life. While the former two works rely on the descriptions of natural life, the latter two, which are *Field and Study* and *Under the Maples*, resort more on the grounds of philosophical gatherings of his accounts on nature.

In this study, one of the works that will be analyzed in terms of plant studies is John Burroughs’ *A Year in the Fields*, first published in 1875. In this work, he captures the effects of four different seasons on a field and how the change of the seasons affects the inhabitants of the field. Burroughs represents a variety of species through his observations, including trees, weeds and other kinds of plants. Specifically, in the essay “A Bunch of Herbs,” he gives an insight to the herbal life. This particular work, consisting of a selection of Burroughs’ nature essays, tracks the succession of months which make up the whole seasons. Starting from winter, it consecutively follows his observations in spring, summer and eventually autumn. While he devotes two consecutively following parts for each season, he leaves a single one for the autumn around the end before finalizing the collection with “A Sharp Lookout.” The outlining and tracing of the seasons point out to the journey of natural and plant life as expressed in the succession of the seasons. Burroughs observes the countryside and recollects his memories from different times and spaces throughout his life. His recollections with thorough descriptions of the landscape and the lives of plants, along with various kinds of animals, are reflected in this collection. His way of living, which is modest and close to nature, can be traced in his writing. As Clifton Johnson states in the “Introduction” to the 1897 publication of the

book that, Burroughs is a man of simplistic living, who refers to himself as a “farmer.” His engagement and close relations with nature, which shapes the outline of his signature observation of nature, can be traced in majority of his works (Johnson, *A Year* ix). This collection of essays, encompassing a whole year in the open landscape, provides an insight to Burroughs’ understanding of plant life. In doing so, Burroughs utilizes his unique perception which enables him to see nature thoroughly. The scholarly interest in nature is not mediated by grandeur or good looks. Existence of vegetation in its place is sufficient for the interest to be circled around. Thus, Burroughs’ perception, mediated through his observation skills, can be traced throughout this book. He observes the emergence of flowers with the coming of spring and he even notes the dates he first encounters them. His scrutinized tendency of deep observation of nature is what provides us today with the details of his reflections as put in his literary works. He perceives each plant as individual beings who are the treasures of their own area (*A Year in the Fields* 50). Therefore, *A Year in the Fields* is an explicit work to be considered in the discussions about plant life, since it presents a variety of individual plant species as alive and active.

Another work that will be analyzed in terms of plant studies is John Burroughs’ *Signs and Seasons*, first published in 1886. *Signs and Seasons* is a collection of essays arranged by Burroughs to reflect his notion and perspective on nature, wilderness, plants and animals. This work is filled with detailed descriptions of his observations and his natural philosophy can be explored throughout this book. This work provides Burroughs’ reflections on farm life. Leaving aside the period of institutional working, this particular work traces his return to farm life. He begins his collection with “A Sharp Lookout” essay. This choice reflects his grounding of observation on the location, as signaling the nature of upcoming essays on the collection. This collection presents “connectedness to nature” which is achieved through “local knowledge and physical labor in the soil” (Gould 155). Burroughs’ tone in his nature essays is genuine to his character which reflects simplicity and sympathy. His mode of writing is distinguished due to carrying personal elements in it. His “quiet and close-to-home approach to experiencing, enjoying, and writing about nature” has been cherished and received much acknowledgement in the late twentieth century (Charlotte Zoë Walker, *The Art of Seeing Things* xv). He creates his essays with a strong sense of artfulness, in addition to being quite casual. His nature essays are not only close to nature, but also to human life which is a reminder of the mutual

connectedness of humans and nature. He presents his accounts of natural life in his essays in a slow and steady tread accompanied by his own interpretations. As much as an observation takes effort and time, his points reflected on paper follow a similar pattern. As Walker states, in Burroughs' essays, "an observation is followed by interpretation, then by further illustration and observation" in a way that it invites the reader to participate and form a collective perception and understanding with the writer (xv). He aims for his readers to comprehend and reach a similar level of capacity with himself at the end of his observation and interpretation. Therefore, his essays tend to "simply end – often with a graceful echo of the main topic rather than with a methodical reiteration" since he believes that the readers are on the same page with him (xv). He values the natural world and thus, emphasizes the importance of perception. He prioritizes being alert and aware in nature through which one can receive "the joys and gifts of an attentive eye" (xvi). Specifically in "A Spray of Pine," one of the essays in the collection *Signs and Seasons*, he focuses solely on pines. It gives various accounts of the species and its different positions within the earth community. The essay examines the pine's growth, its branch movements, and its systems of shedding leaves. It delves into the pine's characteristic traits, such as its being silent, friendly, and resilient (40-1). It goes on to show various portrayals of pines in literature and mentions Emerson's pine trees as one of the examples (44). His view of a simplistic tree, such as the pine, gives further understanding to his perceptions of other and similar vegetal beings. He approaches to each member of the environment individually and delves poetically into their biology along with their social relations.

The other book to be examined in this study is John Burroughs' *Field and Study* published in 1919. In this work, he gathers his observations on field and he contemplates on different concepts such as science, literature and religion. This collection, as the title suggests, brings in his observation of life on fields and a collection of Burroughs' conceptual and critical articulations on vegetal life. Accordingly, the collection is split into two parts, consecutively titled as "Afield" and "Study Notes." While the first part includes more of his accounts on natural life, the second part is comprised of his critical readings about certain topics such as literature, science and natural history. There are also the subcategories of the second part of this collection titled as the above listed fields. Still, there is a unity in between the parts of the collection since in all parts Burroughs brings

forth and cherishes the commonly found beings in nature. He draws attention to the liveliness of natural world along with its living non-human members (Morel 87). Darwin's influence on Burroughs' writing is also quite evident in this collection since he embarks on new spheres of scientific developments of the time. However, his tendency towards the common, the little and the most obvious is still evident in his tone throughout the essays. His appreciation and "ability to find novelty nearby" can still be traced in his gatherings (89). One of the essays in this work, titled "Nature in Little," presents Burroughs' interest in vegetation, along with its smallest members. The more plants are seen as beings on their own, the more attention they arouse in humans. Burroughs shows that they have will and intention for effective survival. They know how and where to scatter their seeds; they compete with each other to get a better sunlight and air; and have their own systems of protection against harsh weather conditions. This shows that plants are individual beings and active agents with specific intentions. Rather than being passive in nature, Burroughs discovers that they are actually mobile. He also mentions the individuality of natural entities and how far they are, indeed, from dogmatic notions that tend to generalize their existentiality. Vegetal life is representational of uniqueness in nature. For Burroughs, there are no set rules because everything in nature is changeable and independent. Humans tend to believe that there is a universal rule and natural entities act accordingly; however, it is the exact opposite. Natural and vegetal life is "incalculable ... The problem is too complex, or our wits are too shallow" (40). Similar to his other works and essays, this work also handles members of nature, plants in this case, for this research, as individual beings. Each one is active in their earth community individually and humans are the ones who observe and see and understand this uniqueness in nature.

Additionally, the last work to be analyzed is John Burroughs' *Under the Maples*, published in 1921. This book was written during the last two years of Burroughs' life. Most of the essays, compiled together in this collection, are written while Burroughs was accompanied by the maple trees or looking out the window at the scenery created by their presence, as Barrus suggests in the Preface of the collection (v). Hence, the title has followed as such arousing from his interest in the species. The collection presents Burroughs' accounts of the journey of seasons, tracing relative plant behaviors, in addition to his excursions with some of the powerful names of that time, such as Roosevelt. He specifically points out to circular growth patterns in nature, especially as

represented in the lives of plants, in essays such as “The Falling Leaves” and “All-Seeing Nature.” Similar to the former collection *Field and Study*, it can be said that *Under the Maples* is also representative of Burroughs’ philosophical gatherings about the life of plants. In addition to his unique observations of nature, this collection brings in his set of mind and perception in regards to the life of nature. Beginning with his remarks of specific scenes and natural bodies, the collection takes on a turn towards personal notes on specifics in nature. Starting with “A Sheaf of Nature Notes,” followed by “Ruminations” and, lastly, “New Gleanings in Field and Wood,” the second half of the collection represents Burroughs’ interpretations and findings gathered around in a rather scholarly tone. While the observations in the earlier parts of the collection are more extensive, the second half represents various notes which are relatively shorter. They focus on distinctive topics and attitudes belonging to nature and plants. Appliance of shorter texts may suggest the abundance of Burroughs’ interpretations on various topics and makes it possible for him to express his experiments on philosophical and ontological grounds. This collection sheds light to Burroughs’ interest in maples as it is also named after those trees. He is fascinated by their being and even by the way they shed their leaves. The first chapter of the book “The Falling Leaves” is devoted to this phenomenon. Burroughs also comments plants’ intelligence and how the roots of the trees act as intelligent and sensible beings for survival purposes. A tree’s life is shaped through its roots and it evolves from them. In a way, each tree acts as individual beings with distinct needs and the roots act accordingly. He praises this treat and he notes “The individuality of plants and trees in this respect is most remarkable” (5). Burroughs perceives plants as individual beings and examines each one with great scrutiny. Throughout this work, he uncovers their relation within the community they reside and how they communicate through their relationship with humans, animals and other plants. In this cycle of life, plants, both as subjects and objects of the environment, stand as individual agents.

This study is split into three chapters which include the analysis and interpretations of John Burroughs’ plants in *A Year in the Fields* (1875), *Signs and Seasons* (1886), *Field and Study* (1919), and *Under the Maples* (1921), by basing the findings on Michael Marder’s notions on vegetal life in his *Plant-Thinking: A Philosophy of Vegetal Life* (2013). In order to do so, the prominence of seeing and observing, as put forth by Burroughs, is highlighted by paralleling it to Marder’s concept of encounter. John

Burroughs' works that are selected for this study are essentially collections of nature essays. Since there are numerous essays in one collection, the method for citation is chosen as giving the whole title of the collection, rather than continuously giving specific titles of essays, in order not to cause any confusion. However, in the discussions about John Burroughs' insights on observation, specific titles of essays such as "Art of Seeing Things," "Sharp Eyes" and "A Sharp Lookout" are used.

In the light of this, Chapter One of this study will focus on various notions that look into vegetal life. Firstly, it will look into Western perceptions of plants and plant life, which metaphysically demean and background vegetal life. For this purpose, Michael Marder's *Plant-Thinking* lays the base ground of Western perceptions. It looks into tenets such as nominalist classifications and instrumentalization of plants, their lack of motion and the perception that sees plants as incomplete beings. Secondly, in Chapter One, this study will present Non-Western approaches, specifically focusing on Michael Marder's *Plant-Thinking* and John Burroughs' selected works for this study, in order to portray the outlook towards vegetal life and their inclusion in critical thinking. Similarly, in explicating Non-Western approaches, this study will focus on three aspects of vegetal life which elaborates on plants as alive beings, looks into their mobility and intentional obscurity. Finally, the last part of the chapter will delve into Michael Marder and John Burroughs' perspectives on the lives of plants. In doing so, it will focus on the bio and plant-centric perception that Burroughs and Marder apply when examining nature and the vegetal world, namely the "encounter" in Marder's terms and "art of seeing" or "lookout" in Burroughs' terms. Stemming from the similarities of the perspectives that both writers apply, the last part of this chapter will look into the views of vegetation in which the human is de-centered.

After basing a ground for a "plant-thinking" as in Michael Marder's terms or a "lookout" as in John Burroughs' terms towards plant life, the second chapter of this study centers on "the modes of being-in-the-world appropriate to plants" (Marder, *Plant-Thinking* 11-12). For this purpose, three aspects of vegetal existentiality have been looked into, as explained by Michael Marder and further exemplified through John Burroughs' selected works. The first part of Chapter Two begins by delving into vegetal vitality. It continues by explaining vegetal capacities and capabilities, which feed the qualities of vegetal

vitality. The second part of this chapter focuses on non-conscious intentionality of the plants which explains their directedness towards their surrounding environment. This is further explained through vegetal heteronomy that clarifies their dependencies on others, as well as their externalization which reflects their heteronomy and vitality. Lastly, the second chapter looks into vegetal temporality which explains plant existentiality with regard to time and how their time is differentiated from that of the humankind. The last part, for this purpose, looks into how plant time is dependent on the time of others, in addition to the concepts such as their ceaseless production and iteration, as explained and exemplified in John Burroughs' works.

Chapter Three, as the last chapter of this study, centers on vegetal behavior which can be traced in John Burroughs' works, as also elucidated by Michael Marder. In order to explain behavioral patterns in plants, this chapter starts with vegetal freedom. This concept is explained through how plants are liberated both physically and from anthropomorphic considerations, as well as their behavioral reflections of throwing and disseminating without reaching a goal. The second part of the last chapter, respectively, explains plant intelligence and certain attitudes of plants that can be perceived as intelligent behavior, such as their heightened sensitivity and attentiveness to their environment. Finally, the last section of Chapter Three looks into plant communication. In order to explain plants' communicative patterns, this section separates into parts that examine their unique language, their self-expression and shows them as relational beings in their communications with others. These concepts that make up for plantal behavior is explained through John Burroughs' selected works, by basing it on Michael Marder's study on the subject.

To sum up, Western culture has mediated the ways nature is perceived by others. Setting up barriers between humans and plants, both communities have been seen as two separate parts which are not connected to one another. Natural beings, especially the ones belonging to the plant world, have been considered as silent, passive beings holding up a "blank state of existence" (Hall, *Plants as Persons* 1). This notion of separation has caused and justified a human-centered world and humans have been put in a position of self-professed dominion over the Earth. To change this anthropocentric perspective to a biocentric one, it is crucial to understand the surrounding environment. One way to

change the former situation could be understanding plant life and individual traits of plants. John Burroughs, through his scrutinized observations of nature, sheds light to plant life along with all natural life. His accounts of plant life, mediated by his natural philosophy elaborated in his essays, such as “Sharp Eyes,” “A Sharp Lookout” and “The Art of Seeing Things,” provides us with a new perception of plant life. His accounts of his observations provide the reader with a detailed script of vegetal life and its implications as singular beings with certain modes of living and behavior patterns. Critical plant studies, in this study, holds a great importance in order to understand vegetal life with its connections to other entities in their environment and as individual and intentional beings. In that context, Michael Marder’s *Plant-Thinking* and his study on the lives of plants, along with his other contributions to the field, hold great importance. By utilizing the aforementioned works, this study will provide an analysis of John Burroughs’ plants. Burroughs’ *A Year in the Fields*, *Signs and Seasons*, *Field and Study*, and *Under the Maples*, with scrutinized accounts of plant life, will help change the former notion of passive and invisible plantal life, by showing plants as full of life, active, free intelligent and communicative beings.

CHAPTER 1

JOHN BURROUGHS AND DE-CENTERING THE HUMAN

“What is life, anyhow, without imagination and
void of curiosity about the earth we inhabit?”

-John Burroughs, *Field and Study*

1.1. WESTERN AND METAPHYSICAL NOTIONS OF PLANT LIFE

In Western philosophy, plant life has been disregarded in the discourses about life. Even though plants are one of the most domineering forms of life on Earth, on the philosophical ground, they were still not highly contemplated on. Plant life was examined mostly through its similarities to humans and animals. This is due to the domination of anthropocentric and zoocentric perceptions. Since the vegetal way of living and external features do not bear obvious similarities with either humans or animals, they were mostly looked down upon. The tendency of keeping away from plant life caused the emergence of plants’ “otherness” to human perception. Plants’ system of living which is divergent than other forms of living beings resulted in widening of the gap between the human and the plant. Therefore, *plant blindness*, as a phenomenon, surfaces in the Western philosophy stemming from the plant’s otherness which is caused by biased beliefs such as commonness of plant forms, similar patterns of plant exteriority, lack of movement and intelligence.

The “question of the animal” has introduced new conceptions into the field of environmental ethics. These notions contributed to the relationship between human and non-human beings. These approaches highlight ontological values of animals, which, in return, shapes the human treatment of “non-human ‘others’” (Marder, *Plant-Thinking* 2). This perception of animals shifts not only humans’ handling of animals, but also it questions animals’ position in relation to human lives. These new contributions to the field of environmental ethics have led the way for a need to embrace all modes of living beings, including plants. As John Burroughs suggests, pointing out to the existence of a variety of other-than-human beings, nature is like “a page written over or printed upon with different sized characters and in many different languages, interlined and cross-

lined” (“The Art of Seeing Things” 12). In “the book of nature,” there are various kinds of beings in different forms and sizes, all of which bear individual importance and characteristics (12). Plants, along with other non-human entities, are a major mass dwelling on the same planet. Within this crowd, it is crucial to take an ethical stance in the consideration of the life of plants.

Even though plants are disregarded and overlooked by the dominant Western thinking, they are “the source of all life on earth,” as Laist suggests, pointing out to the prominence of vegetal life (10). The principle of life of all beings on Earth is encrypted in the biological systems of plants through capturing and storing the sun light and turning it into energy and organic molecules, which are indispensable for the sustainability of life. In this regard, plant kind is still overlooked no matter how widely they have been taking up spaces, both by physical existence and also in oral traditions. Plants have been a part of myths and stories of all cultures, ranging from “Ydrassil, the World Tree of Norse lore, to Asvattha, the cosmic tree of the Upanishads, to the Tree of the Knowledge of Good and Evil and the Tree of Life in the Garden of Eden” (10). In addition, plant life has been majorly emphasized in many indigenous cultures. In Jain philosophy, plants are accepted as “the fifth element comprising the universe, alongside the other classical elements: earth, water, fire, and air” (Marder, *Plant-Thinking* 6). Nevertheless, plants are devalued due to the misconceptions of their position as inanimate beings. Aristotle writes in *On Animals*, as stated in “The History of Animals,” that plants lack life as opposed to animals which are endowed with it (Aristotle 6). The position of plants in the scheme of life has been a contradictory topic in Western contemplations. Aristotelian “Chain of Being” provided a blurred line between the considerations of plant life as animate or inanimate. Aristotle created a hierarchical order in which he classified beings in terms of certain qualities which are observable in animals. In this “hierarchy of life,” plants were situated at the bottom due to their deficiency of bearing resemblance to animal kind (Hall, *Plants as Persons* 7).

Theophrastus, who was Aristotle’s pupil, perceived vegetal life in a different manner. Similar to Marder, who emphasizes that plant life is suited to be considered only by their terms, Theophrastus also gave importance to the philosophical treatment of plants regardless of zoocentrism and instrumentalism. He perceives plants as “volitional,

mindful, intentional creature that clearly demonstrate their own autonomy and purpose in life,” rather than seeing them as inactive, insensitive entities not having any aim or intellect (7). He proposes that plants’ production of fruits and, consecutively, the production of the seeds signals their purpose of life and the will to proliferate, along with the patterns that they follow when scattering their seeds which is definitive in their emergence in certain locations (7). Even though the Darwinian approach does not demean plant life as holding a lesser ground when compared to animals, the Aristotelian approach stands on the opposite side. Nonetheless, Aristotle’s notion has been the widely accepted approach in the consideration of plant life since it has immensely shaped Western literature and art (Laist 12).

Western perceptions of nature tend to remove human life from natural life, therefore widening the gap between humans and natural life. As put forth by Val Plumwood, in Western culture, “human/nature dualism” prevails. Within this perspective, humans are strictly separated from the scope of nature (Plumwood, *Feminism and the Mastery* 2). Thus, human culture and nature dwell on separate grounds where the former holds superiority over the latter (Plumwood, *Environmental Culture* 4; *Feminism and the Mastery* 2). Nature, which does not seem related to human culture, is perceived as the “Other” (*Environmental Culture* 4). Creating boundaries between nature and humans, in the form of human/nature dualism results in dominion, superiority and control over nature by the humankind. As stated by Hall, arguing on the notions presented by Plumwood, “Western worldviews ... render nature as an insignificant Other, a homogenized, voiceless, blank state of existence,” thus regenerating a justifiable dominion over nature (*Plants as Persons* 1). Within the concept of human/nature dualism accompanied by the offshoot of this perspective as the “Otherness” of nature, characteristics of nature such as being silent and seemingly motionless are put under question. Accordingly, a falsified perception which overlooks singularities, individual values and uniqueness in nature transpires. This perception of nature, especially, looks down on plantal life since plants are considered to be unrelated to human life. Vegetal vitality is demeaned by the implementation of Western metaphysics onto their ontological existence. The metaphysical perception of plant life lowers the plant “as qualitatively weak and as verging on inanimate existence,” therefore, “forces this life into retreat, puts it on the run,

and so increases the distance between philosophy and vegetation” (Marder, *Plant-Thinking* 27).

Joining the conversation, Marder discusses that there are two factors which hinder humankind from forming relations with the natural environment. These limitations are as follows, “The unipolarity of reason, [which results in] objectifying everything in its path” and “the self-proclaimed exclusiveness of the human existential comportment” (Marder, *Plant-Thinking* 8). In accordance, nature and the plant kind is backgrounded in ethical and moral considerations since they are acknowledged as having none of the following prevailing virtues of “mentality, agency, and volition” (Hall, *Plants as Persons* 1). As Marder suggests, in traditional Western philosophy, denying “the core values of autonomy, individualization, self-identity, originality, and essentiality” to vegetal life “marginalizes plants” (“Vegetal Anti-Metaphysics” 470). These obstacles cause foreignness to plant kind, along with the unethical disregard of plants’ ontology. Metaphysical notions of plant life have proved that these beings have been “demeaned and abused along the intellectual history of the West” (Marder, *Through Vegetal* 112). Rather than the acceptance of the heterogeneity of nature, there is a tendency of holding tight to the homogenized views which disregard individual characteristics of plant life. As a consequence of this, Western perspectives put risk to the health of the Earth as creating a danger for the “biospheric integrity” as discussed in the report of UN GEO4 (Hall, *Plants as Persons* 1). The negligence of the individuality and variety in the natural world results in dogmatic perceptions in the considerations of plant life by Western thinking. As John Burroughs also verbalizes, “Dogmatism about nature, or about anything else, very often turns out to be an ungrateful cur that bites the hand that reared it” (“A Sharp Lookout,” *A Year* 213). Through these lines, it can be inferred that fixated ways of thinking that do not accept heterogeneity of vegetal life fail in their interpretation of plant life. This is due to the fact that the aforementioned modes of thinking miss the vital point of vegetal life which is constantly on the move and flourishes on different levels which are unique to the members of the plant community. Individual expressions of plant life prove the opposite of what dogmatic perception may offer. In addition to being misunderstood through engendering dogmatic views, life on plantal level has been widely neglected, even though they are also living beings whose lives are closely ensconced within human lives. Marder suggests that even though plants are “akin to us ... we fail to

detect the slightest resemblances to our life in them and, as a consequence of this failure, routinely pass a negative judgment on their worth, as well as on the place they occupy in the modern version of the ‘Great Chain of Being’” (Marder, *Plant-Thinking* 3). In addition, he states that plant life would remain “foreign” to human life if they are not truly “encountered ... so long as we have neither let them be, flourish, and appear as they are, nor done justice to them by means of this very onto-phenomenological ‘letting-be’” (3).

1.1.1. Nominalism and Instrumentalization of Plants

Western ideals tend to fit plants into the schemes of either “instrumentalization” or “nominalist-conceptual integration” (Marder, *Plant-Thinking* 4). Nominalism, specifically, is considered to be the widely used method of thinking of plants. This perception implies classifications or categorizations of plant families. Michael Marder gives an example of Carl Linnaeus and his taxonomic method of plant thinking. Accordingly, a sunflower is known through its position within the vegetal family that it belongs to. If the sunflower species is put into the “kingdom Plantae, order Asterales, family Asteraceae, subfamily Helianthoideae, tribe Heliantheae, and genus *Helianthus*,” then it is sufficiently recognized (4-5). Placing the plant into its categories of genus and families is what nominalist classifications tend to accomplish. The essence of the plant is apprehended within these taxonomic family names. Marder proposes that “assigning to it an exact place in a dead, albeit highly differentiated, system” would result in the entrapment of “the sunflower’s singularity and uniqueness” (5). Such categorizations of plant species damage the value of the individual plant by depreciating its originality and singularity. Limiting a species into the classifications of tribes and families implies that the referred species does not have a value or does not entail any characteristic traits outside of the category that they belong to. In addition, it causes generalization of plant species which regard all species as the same, neglecting singular and unique qualities of the same species.

Western conceptualism, especially from Georg Wilhelm Friedrich Hegel’s perspective, attempts to add liveliness to the passive matter. However, according to Marder, it also fails to perceive plants other than as a “vanishing mediator, a transitory moment in the reproduction of the genus” (*Plant-Thinking* 5). Western nominalist and conceptual classifications result in the mishandling of flowers which implies “[a flower’s] cognitive

plucking, a detachment from the ground of its existence. What they grasp, however, is a plant already dead and dry ... deprived of its distinctiveness, and turned into a museum artifact in the labyrinths of thought" (5). John Burroughs criticizes the acts that remove the plant from its living vicinity. In *Field and Study*, he states that "I admire flowers, but I can leave them on their stems; I have no herbarium to fill ... I make no collection" (175). This is because to remove it from its space would be to cease its liveliness. In a similar way, collecting it would result in its becoming of an artifact, as suitable for the human interest. In *Signs and Seasons*, Burroughs introduces another criticism to Western conceptualism, in which he points out to "closet naturalists" (213). These collectors focus on the utilitarian and instrumental value of vegetal life, in which the plant is plucked and situated in a closed space, altogether removed from its vicinity. In this case, the plant loses not only its liveliness, but also its race faces the danger of extinction (214).

Instrumentalization of plant life brings forth major issues that affect the environment immensely. This effect is on the side of the disparaging attitudes towards nature. Acceptance of the instrumental value of plant life flash forwards in the form of physically destructive actions. Both metaphysics and global economy act in the ways that are unfavorable for the plant since they necessitate the use of plants for productive purposes and see them as crops (Marder, *Plant-Thinking* 55). It paves the way for excessive logging practices, and, eventually, deforestation. It does not cherish the life of a plant or the life of a forest as a whole. Rather, it reveres only the external ends that it meets. Instrumentalization and the aforementioned concept which is categorization, fail in the sense that both approaches mistreat plants. Both concepts fail in seeing vegetal life outside of its purposefulness, and besides; they do not recognize "vegetal life as *life*" (25).

An instrumental approach is also applied in Western conceptualism since it focuses on the final product of the plant, which is the fruit. The fruit, as the final point of vegetal life, is positively regarded in conceptualism. The reason for a positive approach to the outcome of the plant is that it brings a meaning to plant life as being instrumentally useful for animals and humans. Hegel's ideas on vegetal existence demeans plants into "sheer materiality ... [to the] point of spiritless and 'self-less' nature" (Marder, *Plant-Thinking* 26). He contributes to the concept of the instrumentalization of plants which makes it possible for the plant to reach a goal. The final product of the plant, which is in the form

of a fruit, is the convenient end that the plant can accomplish. This final product gives the plant a space in life and nature since it offers a material and beneficial outcome. As Hegel states, plants, with their tangible ultimate product, adds up to “its usefulness as food and drink [through which] it reaches its highest perfection; for in this it is the possibility of a higher existence” (*Phenomenology* 437). Thus, “the principle of utility” becomes the base ground for the humankind’s perception of the vegetation (Burroughs, *Under the Maples* 180). The life of the plant is valued only for the reason that it provides food for the nourishment of the humankind or the animal kingdom. The interest towards plants is directed by the “purposes” which “best suit” that of the humans (179). The favoritism of the fruit, in return, causes the excessive consumption of the natural resources, similar to the insensible logging practices. Plants are idealized as long as they provide a fruit. This idealization of plants working for a higher purpose shows that plants reach almost to a perfection through their “*ergon* (work)” for “*arētē* (excellence)” (Marder, *Plant-Thinking* 26). From this perspective, weeds are devalued because they do not offer any tangible source for the use of humans. Therefore, they do not properly fit within the scope of “self-less Nature” in Hegel’s terms (*Phenomenology* 436). When it comes to the observable wilderness, it stands on uncertain grounds from Hegelian perspectives. Wilderness might invoke the senses and feed the imagination of the artists; however, it does not give out a great amount of “consumable resources;” therefore, it fails to “attain ‘the highest perfection’ of an apple orchard” (Marder, *Plant-Thinking* 27).

Another point to be added to the instrumentalization of plants is their fetishization. This perception results from ancient approaches to plant life which add mystifying elements and meanings to plants. Removing the plant from reality, fetishizing attitudes move plants to the stage of phenomenality. Rather than concentrating on the factual and physical qualities of plants, this approach adorns the life of plants with mystery and relates them to the stories of myths. From this perspective, plants are seen more close to the category of “things;” therefore, they have a higher potential in relating to enigmatic elements compared to other inanimate beings (Marder, *Plant-Thinking* 29). Due to being fetishized in the form of mythical stories, vegetal life becomes more marginalized and pushed to the mystic realms that are not suited to the nature of plants. Fetishism and mythifying the life of plants engender reflections of human goals on their life, which carries plants more to obscurity (29).

John Burroughs touches upon the same subject in his critique of Western thought regarding plant life. He reflects his ideas through the questions put forth by Plutarch.⁷ The questions were aimed to create answers for some unknown natural phenomena. However, rather than disclosing the enigma by physically examining or understanding nature, Western thinking, as shown in Plutarch's questions, resorts more to the phenomenal side which attributes a deeper sense of mysteriousness to nature and plant life. Vegetal life was marginalized due to its distance from human life. Thus, fetishization and phenomenalization result in a more widened gap between humans and plants. Burroughs also speculates on the Western ideas that nature was "too novel" to reach and take into consideration, as well as being "too fearful" to be tracked down and approached to ("A Sharp Lookout," *A Year* 204). Rather than arousing a scholarly interest in the lives of the members of the natural world, this perception depends on the sublimity of nature and idealizes its grandeur, along with evoking consternation in humans.

Similar to being fetishized by the Western philosophy, plant life undergoes a transformation into tangible and materialized formations by the society. Plants are being cultivated into being an object or a thing other than themselves. In the Western perspectives, as Burroughs puts forward, "We pick out our favorites among plants and animals, those that best suit our purposes" (*Under the Maples* 179). As a result of this act, this newly molded "subaltern plant," which is in the form of food or drink, is given a "voice" (Marder, *Plant-Thinking* 33). This superfluous voice is not asked for the plant by itself, since this voice is the "ventriloqu[ism]" of "the voice of Reason and that of Revelation" (33). Therefore, the plant, which is essentially "incapable of speech," is positioned to be expressive in "more than one voice and in more than one tongue" (Marder, *Plant-Thinking* 33). However, this new composition is the exact opposite of the "onto-phenomenological 'letting-be'" of the plant (3). As a result of this humanized and

⁷ A number of Plutarch's Roman Questions are cited in John Burroughs' "A Sharp Lookout" essay (203). For instance, "What is the reason that a bucket of water drawn out of a well, if it stands all night in the air that is in the well, is more cold in the morning than the rest of the water?" or why "the sight of a ram quiets an enraged elephant; that a viper will lie stock still if touched by a beechen leaf; that a wild bull grows tame if bound with the twigs of a fig-tree" (203). These questions were employed to provide an insight to Western thinking in regards to natural life. He concludes that these questions reflect the Western attribution of metaphysicality and phenomenality to nature. In addition, Burroughs also questions the nature of these questions since they may fail to provide accurate answers. Burroughs, in his essay, also refers to Pliny and Virgil in order to prove their side on natural and plant life which is contradictory to his mindset (201).

phenomenal endeavor to turn the plant into another dormant matter, the former being “ceases to be a plant” (33). Thus, it can be said that all forms of actions which eventually look into plants as beings other than themselves, in the manners of instrumentalization, fetishization along with phenomenal and metaphysical connotations, end in the same result in which the plant is no longer a plant.

1.1.2. Lack of Motion

Motion is an important quality attributed to living beings in Western philosophies, especially by Greek thinkers. Plants, in this sense, are rooted beings connected to the soil, thereby they are defined by their immobility, lacking the capability of movement. The Latin word *plantare*, underlines the meaning of plant life as “‘that which is enchained to a place,’ ‘that which is driven into the ground,’ the planted,” (Marder, “The Place of Plants” 186). Since plants are unable to move, their state of being alive is questioned by the Western philosophy. In accordance with plants’ rootedness in the soil, plants are perceived as inactive and passive beings. This perception adds up to the limitation of their capacities. “Plants seem to live,” according to Aristotle, “without sharing in locomotion or in perception” (*On the Soul* 410b23-24). They participate less in the aforementioned performances; therefore, they dwell only on the appearances. Due to their passivity, they are regarded only by their presence on the soil. In this case, plants seem to have not been granted any further or more scrutinized examination ontologically, which, in return, causes the perception of them as only appearing to be living on the surface. Western perception puts humankind above others, especially plants, since “It is only in action, or in the act of living, that we view ourselves as distinct from nature” (Burroughs, *Under the Maples* 184). The “act” which is embedded within “life” is what separates humans and removes plants from the spheres of life (184).

Aristotle claims in *De anima* that there are four types of action. Marder names them as moving “by altering its state, by growing, and by decaying” (*Plant-Thinking* 20). Only these formerly mentioned three types fit to the movement of plants. One type of action is excluded from the paradigm of plant movement because it refers to movement by changing its location. This one is the most observable notion of the process of movement in all beings, especially animals. Since plants are incapable of changing their location due to their firm connectedness to soil, their movement remains passive as accepted by

Western philosophy. In addition to the perception of plants as lacking motion, plant life was also associated more with inanimate and nonliving objects in Western perception. One reason for this misconception is the excessive abundance of vegetal beings which leaves not enough space for humans to control and dominate. This “vegetal exuberance” results in a failed attempt that aims to capture a sense of plants through “philosophical conceptuality” (Marder, *Plant-Thinking* 22). There is abundance of all forms of vegetal life in the green and forested spaces. Plants pursue living and growing through reproducing and increasing in number. Such can be observed, especially in open forests. This tendency of proliferation “surpasses the frames of philosophy incapable of encompassing this immoderate and immeasurable production and reproduction of life” (22). It can be understood that Western philosophy, according to Marder, fails to grasp and look into vegetal life because of its excessive numbers which continue to flourish. For plants, being many in numbers is mistaken for being lifeless objects since they do not fit into measurable categories. For this reason, on Western philosophical grounds, plants were perceived more in relation to the inanimate objects, rather than being alive and active entities.

The negativity of plant life has been strengthened from points that highlight plant motionlessness and passivity. Lack of motion entails another aspect with it, which is their hiddenness and obscurity. The plant’s obscurity intensifies when it is considered from the perspective of the plant’s voicelessness. Hegel explains that the silent nature of plants is another aspect that hides the processes of plant life. Hegel states that the “process is obscure because of the sealed reticence of the plant” (*Hegel’s Philosophy* 338-9). Through its reticence and hesitation of self-expression, plants remain in a resting and silent position. In this sense, their presence does not seem to express or teach the humans anything. Into the discussion, Socrates attests, as quoted in Marder’s *Plant-Thinking*, “‘The country and the trees teach me nothing, whereas the men of the city do teach me’” and strictly removes the plant from his contemplation (qtd. in 32). This position of plants, as not teaching or not showing any information, can be considered within the concept of instrumentalization. From Socrates’ perspective, as Marder discusses, since plants cannot be utilized in anyway of teaching or learning from them, their existence is meaningless and purposeless. The incapacity of both movement and sound give rise to the plant’s “sealed character” (32). Western philosophy portrays and accepts that the plant has no

voice for expression or no will to direct itself to a location of its own choosing. This lack of free will and verbalization, which are essentially humanistic notions, positions plants within the concept of passivity and inertness.

1.1.3. “Incompletion” of Plants

The disregard of the “exuberance of vegetal life” is the common stand point of Western philosophy in the consideration of plant life. As Marder quotes from *De plantis* by Aristotle, this notion moves to the extremes of plant beings as lifeless souls. They are not different from lifeless rocks or objects in nature because plants are not living. This conception extends to imply that the plant “is no longer a living thing but ‘an incomplete thing,’ ... something that is even less than a thing, something that awaits completion in its being productively destroyed, utilized for higher human ends of nourishment, energy generation, and sheltering” (Marder, *Plant-Thinking* 23). The term, “incompletion (*ateles*),” refers to the plant’s “purposelessness, listlessness, lack of goal or *telos*” (24). Within this notion, plants are considered as incomplete beings which are yet to finalize a completion. This completion is possible through their utilization for the human needs. Once they reach a point where they can be fully used for basic human needs such as food and shelter, then they achieve their completion. Therefore, as it seems from Western perspective, plants are not complete when they are solely existing by themselves (23). This notion blocks all perceptions of integrity of plants, their complex systems of growing and reproducing, as well as their singular traits.

Within the field of teleology, which prioritizes purposefulness of objects and categorizes beings in accordance with their purposes, plants seem to be positioned at almost the lowest ground by Western philosophy. Plants do not even seem to fit the metaphysical qualities that form the base of the consideration of other beings. They are not suitable to metaphysical classes which include animals or things. When compared with inanimate objects, plants seem to be less worthy. While lifeless and inanimate beings are appropriately utilized for human needs since they are simply considered as “things,” plants fail to be consistent with the terms ascribed to the “things” (Marder, *Plant-Thinking* 23). They are incomplete and useless since they cannot be fully utilized by humans or they cannot fit into metaphysical norms. Therefore, from the perspective of Western philosophy, plants are ontologically faulty because they have “overstepped the confines

of thinghood” (23-24). However, Marder highlights the defects of this notion as he raises the question; “aren’t all things, including the supposedly inanimate ones, uncontainable within the framework of their idealized identities”? (24). He points out to the fact that even though plants may be considered as “things” within this context, all things are indeed in an excess of their assigned identities. In addition, he also questions the norms that define the plant as in a state of *ateles* (incompletion) where the plant lacks *telos* (goal). If that is the case, are things without *telos* not included within the scheme of “Being”? (24). Therefore, when all of these questions are considered, for the case of plants, it is inevitable that they would outstrip beyond these norms and boundaries.

Another point in the plant’s life, that is perceived as useless by Western philosophy, is its growth. The plant’s incessant growth does not bring about any higher purpose to be reached in the end. Other than gaining nourishment through outgrowing, in the Western notion, plants do not accomplish a greater goal. In this sense, the plant’s incompletion occurs due to its lack of means and ends. There is no reasoning behind its growth that could be suited to the human logic. Since there is no reason, there is no ends in the ways of the plant’s growth. Marder suggests that, based on this idea of having no ends, plants may succeed in completion “from the external standpoint of those who will impose their *ends* onto these essentially goalless living things” (*Plant-Thinking* 25). In this perspective, it is implied that the plant’s growth is purposeless outside of its dependency on the external forces to be utilized, which are mediated by the specific needs of humans. Western philosophy demeans the existence of vegetal life to serving a purpose for human life. If it does not provide such a service, then its existence is meaningless. This maltreatment of the vegetal world shapes human contact with nature and controls human treatment of the environment in a negative way. Therefore, a forest full of trees is seen as a supplier of woods. A single tree, in a similar manner, is nothing more than a wood. The view point of vegetal beings is affected by the purpose they might achieve for human life. If they have not reached any, then they are “incomplete.” For the case of the woods, their completion is possible through turning into paper, furniture, or a log house. However, when utilized in this form, plants lose their essence of existence (30-1)

Into the discussion about purposelessness, Marder brings in Aristotle’s ideas on purpose and the soul. Aristotle proposes the relatedness of the soul and purpose in living beings.

Regardless of having a means and an end, all living beings are endowed with souls. The soul is “the first principle *as well as* the final cause” (26). The soul has a purpose, therefore all living beings have a purpose in essence. Aristotle states that “in living creatures the soul supplies such a purpose, and this is in accordance with nature, for all natural bodies are instruments of the soul; and just is the case with the bodies of animals, so with those of plants. This shows that they exist for the sake of the soul” (*On the Soul* 415b16-21). Therefore, it can be said that the plant exists for itself only. Its *telos* (purpose) is protected by its soul for itself. It is not purposed to serve for humans, rather it is meant to be existent on its own. Its functions and pursuing on living is only for its sake. Every accomplishment that the plant reaches to is for itself, not for an external end. Thus, “the acts of generation, growth, and nutrition,” which can be considered as the primary principles of the plant’s life, are reserved for its own sake (Marder, “Plant-Soul” 88). John Burroughs also sheds light to the plant’s purpose as he explains, “The intelligence of Nature outside of man consists largely in adapting a means to an end, and the end is foreshadowed in the organization” (*Field and Study* 133). The purpose, therefore, is already within the plant at the beginning of its germination. Similarly, he underpins the final end which is embedded within, is not applicable for other and external purposes.

1.2. NON-WESTERN NOTIONS OF PLANT LIFE: MICHAEL MARDER & JOHN BURROUGHS

In contrast to the Western notions of plants as passive matter, twentieth and twenty-first century thinkers have introduced new perspectives on plants. Leaving behind conceptual notions and nominal categorizations, these new approaches bring forth an intricate outlook to vegetal beings. This approach aims to remove the barriers between vegetal beings and humans that are fabricated by human thought. Abandoning nominal classifications that divide all beings into categories narrows down the gap between human and non-human beings. These created “classes,” in Western philosophy, disregard plants’ unique traits and diminish them into generally unified norms (Marder, *Plant-Thinking* 9, 140, 141). Marder brings to front these new ideals to the perception of plants in the twenty-first century, while Burroughs evidently carried a similar mindset more than a century earlier than Marder in the nineteenth and the early twentieth century. As Both

Marder and Burroughs similarly represent, these approaches aim to “let things be, [and] to save singularities from the clasp of generalizing abstraction” (5).

There are three traditions that Marder puts forth in his approach towards the vegetal beings. Belonging to the non-Western thinking of plant life, the first one is “hermeneutical phenomenology” which looks into the subjects as “things themselves;” therefore, this approach “interprets them from the ground up and addresses each experience from the standpoint peculiar to it” (*Plant-Thinking* 7). The application of this approach provides a perspective of plants as beings within themselves. It suggests the handling of plants physically within their own environment from their standpoint only. The second one is “deconstruction” which moves the focus towards the one that is marginalized and put aside. It removes metaphysical aspects of the object and focuses on its singularity. The last one is “weak thought” which “welcomes a multiplicity of interpretations” via eliminating “‘objective’ factuality” (7). The last one allows space for numerous interpretations of its subjects which include the beings that are victimized through Western and metaphysical perspectives.

Marder looks into “vegetal existence” that regards plants’ “subjectivity, [which is] drastically different from that of human beings, and describes their world from the hermeneutical perspective of vegetal ontology” (*Plant-Thinking* 9). He means that he looks at the vegetal world from the perspective of the plant. Rather than human reasoning or interactions that describe plants in respect to humans, Marder interprets the plant world from the plant’s perspective. After all, as Burroughs suggests, referring to the vegetal life, “Truly thy ways are not as our ways” (*Field and Study* 132). Accordingly, Marder questions the meaning of the world for the plant, along with the plant’s relation to it. In addition, the plant’s tendencies, intentions and requests are the concern of Marder’s standpoint (*Plant-Thinking* 9). Similarly, Burroughs also centers his interest in the understanding of the vegetation’s “methods, her laws, her results, her non-human ways” (*Field and Study* 176). Marder’s concept of “plant-thinking” focuses solely on the other through an investigation of the other’s material and finite quality. This way of thinking does not force an identity on the other. Rather, it revolves around “the impersonal, non-individuated *it thinks* underlying and subverting the ever-present synthesis of *I think*,” which is utilized in conscious interpretations of the other, which is the plant in Marder’s

point of view (*Plant-Thinking* 12). On a similar note, Burroughs also underlines the importance of an objective turn in the considerations of vegetal life. Rather than the human-centered and subjective approach towards life belonging to other-than-human kind, a more objective and distinctive approach prevails. As Burroughs suggests when the Western thinking of plants is considered, “We do not think of the function of the leaves, nor of the bark, nor of the roots and rootlets, when we gaze upon a noble oak or an elm” (*Under the Maples* 7). When the focus is removed from “*I think*,” as in Marder’s terms, towards the objective “*it thinks*,” a more efficient handling of the plant life is achieved. This is due to the notion that a self-centered observer fails to see affectively, while the mind free from subjective reflections accomplishes the “art of seeing,” as Burroughs proposes (“The Art of Seeing Things” 11).

1.2.1. Living Plants

In the Non-Western approaches towards plant life, life is an important point that is evidently and clearly accepted for plants. Plants are alive beings which are in constant growth and reproduction. The ancient Greek version of the word “plant,” which is *phuta*, translates as “growing beings” (Marder, “The Weirdness of Being in Time” 338). Marder supports liveliness by providing Theophrastus’ contemplation on the life of plants. Theophrastus believes that, as Marder restates, plants are adorned with life and growth in every part of themselves. Each part a plant has, whether it is the roots, leaves, or the body, is adorned with life peculiar to their systems. Thus, it has the potential of perpetual growth (Marder, *Plant-Thinking* 23). This example is one of the exceptions of the Western perception on plant life since most of the ideas of that period tend to disregard the amplitude of vegetal life. John Burroughs’ approach to nature is distinguished in the sense that it diverges from the perceptions of the world as inert matter. Burroughs’ understanding, also rises from George Darwin, who is the son of Charles Darwin. From his ideas, Burroughs deduces that “the earth in many ways behaves more like a living organism than like a rigid insensate sphere” (*Under the Maples* 169-170). In the living plant world, the action and change prevails. Burroughs explains that the vegetal world is “a world of activities and potencies so unlike the world of tangible bodies and mechanical forces in which we habitually live” (Burroughs, *Field and Study* 184). As Burroughs also includes, “Life appears to start in several things simultaneously,” just as it is in the grass,

as well as in the tree (*A Year* 208). This system of thought facilitates an understanding of the vegetal life in terms of their activity and the state of being alive. In understanding the vegetal life, it is important to remove the human-centric ideas from the systems of thought that are appropriate for the plants (199). Otherwise, “We are bound to misinterpret Nature if we start with the assumption that her methods are at all like our methods,” as he presumes (179). As Burroughs suggests, “To ask why is a blind question, but if we ask *how*,” then one might increase their knowledge about the green life and its processes (*Under the Maples* 167). The question of “why” fails when posed against the plant life because it asks only for “reasons or causes” (167). The answer following the question of “why” frequently centers on explanations that are formulated by the Western perceptions of instrumentalization. However, the question of “how” suits more to the nature of plant life since the processes of life and growth can be observed and recorded.

Burroughs captures the flourishing of plant life in green spaces. Pointing out to the abundancy of plant life, he records “How crowded with life every square rod of the fields and woods is, if we look closely enough!” (*Under the Maples* 91). Vegetation is alive and it is encompassing in the natural areas. It is observable by the attentive eye which is capable of seeing and understanding the life of plants. Vegetation, with the coming of spring, expresses itself in health and vigor that “the green seems to have oozed out,” filling up the entire landscape (Burroughs, *A Year* 53). The little things which are full of life come along as the time is spent in nature (Burroughs, *Under the Maples* 19). As he further suggests, vivacity of plants can be observed when in nature. Life is evident in both the littlest things and the greater things in nature. As much as “Nature [exists] in little” as Burroughs suggests borrowing from Aristotle’s saying “Natura in minimis existat,” so is life and vivacity in plants (*Field and Study* 112). It exists “in the minute as in the gigantic, in the herb as in the oak” (112). As he further suggests “Living things exist in the germ,” just as the “the oak in the acorn” (*Under the Maples* 188). Life is evident in all forms of vegetation, ranging from the “buds on the willows, the catkins on the alders” to the “lichens and mosses on the rocks” (*A Year* 208). Burroughs highlights the importance of keeping an open eye and mind when in nature for the little things which contain life. He approves this by noting that “I am in a mood to give myself up to a day of little things. And the little things soon come trooping of looping along” (*Under the Maples* 91).

Among the ones which are representative of the vivacity of vegetal life are the trees. Burroughs states that “nothing else about a tree is so remarkable as the extreme delicacy of the mechanism by which it grows and lives” (*Under the Maples* 4). To record the patterns of life, he looks into the roots and leaves that individually play pivotal parts in sustaining life and growth for the plant. The capacity of the roots for taking the nutrients from the soil and the capacity of the leaves for absorbing the sunlight and transforming it for growth are the proofs of life in plant life (4). Aldo Leopold touches on a similar point in “Bur Oak,” published in *A Sand County Almanac*. He examines the bark of the bur oak and its role in protecting the vivacity of the tree. As he suggests the bur oak is the only one that can survive through fires in Wisconsin area. This is possible through “a thick crust of corky bark [which] covers the whole tree, even to the smallest twigs” (26). This bark covering the whole body following through the tips of the branches serves as an “armor” for the tree to defend itself against the fires (27). Leopold asserts that their positioning in nature is, in a natural way, strategic. They are “shock troops” which face with fire and endure the scorching (27). During the month of April, rising temperatures cause fires to occur in the prairie leaving the fresh grass vulnerable to the flames. The old bur oaks with thickened barks survive through such disasters. It is an achievement for the prairie to survive thanks to the durable bur oak since it stops the fires from blazing in the first place.

Another point Burroughs adds to the liveliness of the plant is that being alive entails being susceptible to incessant change. Alive beings, which are the “Growing beings,” as Marder puts it, grow and become another than themselves (Marder, *Plant- Thinking* 52). Growth, especially the plant’s growth happens in all directions. Static rules and dogmas do not apply to the life of plants. This is because growing and living beings cannot be “stereotyped;” therefore, “Growing Nature will not be driven into a corner” (Burroughs, *Under the Maples* 164-5). As Burroughs says “The land is fugitive;” therefore, “it abides not” (*Signs and Seasons* 153). This form of existence endows the plant a life that it is ever changing and contingent to the outer forces. Liveliness is also mistaken for being dead since the plant’s vivacity is not easily discerned. Life and death carry on a circular motion in the life of plants. One following the other or one may be in disguise of the other. Such can be seen in a tree which might seem as if it is “struck with death;” however, “The decay stops just where the growth of the previous spring began” (Burroughs, *Signs and*

Seasons 39). Therefore, it can be said that life is present thoroughly both in the processes of decay and growth.

Against the instrumentalization of vegetal life by the Western notion, Non-Western approaches resort to the plantal being's ontological qualities and capacities. Such perceptions would not be appropriate for the prior notion. As Burroughs suggests, "Those good people who fancy that everything was made for some special service to man, would have trouble" in seeing that vegetation does not perform along the ways that are useful for the humankind (*Field and Study* 35). Muir's "Calypso Borealis"⁸ presents a parallel view to this perception in which he suggests that the plant exists on its own, for its own self. In this short essay, Muir highlights his encounter with the calypso borealis, a rare specimen of the orchid family. He recalls that he found the specimen only once since it is a rare one which tends to hide in the depths of the woods in cold temperatures. The plant's character is also encrypted in its name which translates as the 'Hider of the North' (Muir, "The Sojourn in Canada" 120). It hides away in spots which are not easily found nor populated by other species. The plant's health and durability in cold weather signals its strength and will to live. Muir's encounter with this kind reflects as an appreciation of the plant since it exists solely on its own with its grandeur. He comes across two of the species together, but alone without any other companions. There were not even other plants, or bugs, or birds around because of the harshness of the cold weather. He awes that he never "saw a plant so full of life" (Muir, "For the Boston Recorder"). The potentiality that the plant presented on its own shows that the plant exists for itself, not for a specific purpose which is human-centric or instrumental. The notion of being "incomplete" is already discussed above within the framework of Western philosophy. This notion recalls that vegetal beings are incomplete unless they serve a purpose which is favorable for the human. Thus, it can be said that this notion backgrounds the fact that plants are alive

⁸ For the purpose of citing Muir's writing, two separate essays are used. Both refer to "Calypso Borealis." The reason for presenting two works is that the story of calypso borealis was first sent to Professor J. D. Butler by John Muir, telling his first encounter with the specimen. In return, the Professor sent the writing to The Boston Recorder by including a few comments of his own in 1866. The other writing of calypso borealis appears on "The Sojourn in Canada," in the collection of *The Life and Letter of John Muir*, edited by William Frederic Badè (1924). In his own letters, Muir comments back to his detailed descriptions on "Calypso Borealis," adding that the letter he sent to the professor remains as the first of his writing to ever appear on paper (*The Life and Letters* 121).

entities. However, Marder brings in another perspective to this Western notion. If the plant's incompleteness means other than being without *telos* (goal), then it might stand for being "open-ended" which would definitely fit into the ontological quality of the plant (Marder, *Plant-Thinking* 24). He finds this definition more suitable for the plant since there is no limitation in vegetal growth which is assertive that the plant is alive. The scope of vegetal growth is immeasurable and endless, hence, not moderate. This brings forth the abundance of vegetal expression in natural areas such as forests. They take up an entire space by massive reproduction. Vegetal life expresses itself in the form of abundance and production. Thus, it can be said that plant life is associated with "an increase of life" (24). Increasing in volume and in numbers is an inevitable notion of plant life.

An important part of living of plants is also their reflection of life through their acts and mobility. When compared with animal life, plant life remains more obscured. While animal life is expressed obviously and as open to interpretation, plant life stands as "inaccessible, encrypted ... and unapparent" (Marder, *Plant-Thinking* 28). Actions and movements in animal life can easily be observed since they happen frequently and out in the open. In contrast, plant movements are not discernable since their pace is relatively slow and incomparable to human or animal pace of living action. Thus, it procreates the misperception of plants as inert matter and the confounded conception of plants as inanimate beings. Marder explains that being dead and dormant is the essence of inert matter. This archetypal trait is observed in all lifeless and inanimate matters. Therefore, since plant liveliness is not easily observed and movements are not performed clearly in the open, a tree trunk covered in snow could be mistaken for a dead log (28).

In order to see such small details, such as the cork of the bur oak or the smallest entities as the herbs, it is crucial to reveal the details behind the general picture. For Burroughs, a successful observer "exists in fragments" by collecting data through dispersed traits in nature ("A Sharp Lookout," *A Year* 215). Small but variable details reside in fractions of nature. Indeed, "There is no little and no big to nature" as well as to the human perception (*Field and Study* 202). For that matter, in terms of liveliness, "size does not count," as Burroughs suggests, "The same is true of all the minutiae of nature – flowers, insects, birds, fishes" (203). There is a balance in natural law in which all members are subjected

to the external orders. Therefore, “In the development of life upon the earth,” the same balance prevails; thus, originally, “no part got much ahead or lagged much behind others” (259). Thus, it can be said that regardless of size or species, all forms of plants are subjects of living entities. Burroughs’ observer appeals to such specifics that are embedded within the layers of natural life. Most commonly encountered processes or beings in nature may seem insignificant; thus, they are overlooked and ignored. Whereas some people only take notice of the strange sights in nature or recognize only the elements which are quite large by volume, others examine nature on a particular level, regarding the single and unique specifics in nature. Therefore, life of plants in most cases is disregarded. While the former “see[s] coarsely and vaguely” looking at only the general outlines, the latter “see[s] finely and discriminatingly” pointing out to the singularities (“Art of Seeing” 5). As Burroughs offers, regardless of the size or so-called purpose that the plant may serve as in the Western approaches, all beings are embraced. To prove his point, he suggests that he can “use whatever he would gladly reject. His daisies, his buttercups, his orange hawkweed, his yarrow, his meadow-rue” (*Under the Maples* 70). The pronoun “he” that Burroughs uses refers to the farmer who plants his crops for a profitable income. While the farmer rejects those plants and weeds which do not bring forth a tangible gain, Burroughs willingly accepts them since his judgment is not mediated by profitable outcomes. He also adds that “When one of our poets writes, ‘wild carrot blooms nod round his quiet bed,’ he makes better use of this weed than the farmers can” (70). These lines suggest that a distinctive look to the plant’s life is more cherished than any form of instrumental gain or nominalist classification. Pointing out to the life and growth of the plant suits more to the existentiality of the plant. Additionally, Burroughs also perceives liveliness as being evident in the abundancy of the vegetation. Weeds are a species that represent their vivacity in full exuberance. They “increase and spread enormously” with the suitable conditions of “better food, more sunshine, and more aids in getting themselves disseminated” (Burroughs, *A Year* 136). Their extension, intake of nutrients, and utilizing certain aids to help their seeds scattered, highlight their dynamic liveliness.

1.2.2. Mobility

The issue of mobility is thoroughly discussed both in Western thinking and in the contemporary perceptions of vegetal life. Plant movement seems passive and facilitated by the outside forces (Marder, *Plant-Thinking* 21). Because of the fact that “plants are sessile” beings, their “sessility has been mistaken for the plants’ immobility and impassiveness” (Marder, “Plant Intentionality” 1367). Since they are connected to the land by their roots, the Western concept of “unfreedom,” has been attributed to plants (Marder, *Plant-Thinking* 12). Even though the mode of being rootedness brings about an understanding of vegetal existence as built on a solid and rigid ground, it is still backgrounded due to the conceptual lacking of freedom which puts physical movement through changing location at its essence. This fact results in positioning of the plant life in “a purely passive comportment,” because plant bodies fail to “operate in the space of freedom to decide on the course of action or ... to act” (69). The perception of plants as not capable of freedom disdains the plant’s “ontic exuberance and uncontrollable efflorescence” along with its capacities (12). However, as Marder suggests, influenced by his reading of Henri Bergson, “the *tendency toward immobility* ... does not exhaust the mode of being of plants” (*Plant-Thinking* 19-20). By this, Marder supports that being immobile does not diminish the value and existence of plants, in the same way as it does not solely define their being. The word “vegetation” is derived from the Middle Latin word “*vegetabilis*” which represents growth and thriving. The other forms of the words, such as the adjective “*vegetus*” signals action and dynamism. In addition, the verb versions “*vegetare*” and “*vegere*” respectively refer to animate and to be alive (20). From all versions of the words encompassing vegetation, it can be implied that vegetation entails mobility and action. States of being alive and impassive are embedded within the core of the word. However, the commonly used word “vegetate” has also some adverse implications in its contemporary use. It is associated with the situations where humans or animals are in an unreceptive and inactive state that is considered as analogous to plants’ state (20). Nevertheless, as the aforementioned examples show, vegetation is in exact opposite side enriched with liveliness, dynamism and progression. Therefore, it would be inaccurate to consider vegetal life as non-living and immobile. Rather, it is crucial to understand the capability of movement through the perspectives that are suitable for plants.

Marder explains plants' movement in four modes of action that Aristotle mentions in his *De anima*. Only three of these types⁹ fit to the plant movement, since one of these types entails movement by changing location, as also mentioned earlier in the "Lack of Motion" section of this study. However, as Marder discusses, locomotion cannot be the only trait that defines movement ("The Place of Plants" 186; "Plant Intentionality" 1367). It is a unique mode of motion that plants perform since it is not limited only to changing positions which is the core point of mostly any form of movement. Hence, the plant "moves," in ways appropriate to its being" suitably interchangeable in accordance with "its mode of living" (20). Marder asserts that plants "not only *participate* in the non-locomotive types of movement but are also, to a great extent, *defined by them*" ("The Place of Plants" 186). Therefore, vegetal movement is not only a physical inclination, but also it is one of the tenets that delineate vegetal life. The concepts, such as being alive and mobile are captured in plant life when the perception of human becomes "external," which is to say that human interest is directed towards non-human beings (Burroughs, *Field and Study* 275).

De-centering of the human from the ways of thinking and contemplation enables new ways of consideration of the vegetal life. At the center of mobility lies the directedness towards various points for the purpose of growth and survival for the living beings. As Burroughs states "increase alone is Nature's end" (*Under the Maples* 147). Therefore, for the reason of increasing in numbers, the vegetation moves. Even though Western notions define movement as a form of motion which plants lack, it can still be seen on different layers of plant life. For Burroughs, vegetal life is through "action, and not thought, growth and not construction" (*Under the Maples* 199). Burroughs also describes the lives of plants as full of "action and not reflection," in which the vegetation expresses itself in "perpetual revelation" (*Field and Study* 135). These lines suggest that action of plants is visible since they are in a continuous tendency of exposing themselves. As Burroughs suggests, "The inherent tendency to vary implies an inherent force or effort" which shapes the baseline of becoming other than itself (279). It can also include action and movement since vegetal movement also presents a change on the outer surface. Burroughs ensembles

⁹ These suitable modes of movement for the plant are; moving "by altering its state, by growing, and by decaying," as already discussed in the "Lack of Motion" section of this study (Marder, *Plant-Thinking* 20).

this endeavor only to alive beings since “it is the characteristic of life to struggle” which the inanimate and motionless objects essentially lack (279). The struggle, therefore, lies at the core of the plant existence (Burroughs, *A Year* 153).

Plants’ invisibility and tendency to hide, according to Marder, is a guise. Plants guise themselves in passivity. They are in an active state of flourishing, however, their mode of vegetal appearance is by being seemingly passive. This side of vegetal life seems as a predicament on the way of the philosophical consideration of plants since the facts or elements of vegetal world is not out in the open available for easy and quick interpretation. Marder perceives plant life as an “obscure non-object: obscure, because it ineluctably withdraws, flees from sight and from rigorous interpretation; non-object, because it works outside, before, and beyond all subjective considerations and representations” (Marder, *Plant-Thinking* 20). Saint Thomas Aquinas, in *Summa Theologica*, proposes that plants have life, however “life in plants is hidden, since they lack sense and local movement by which the animate and the inanimate are chiefly discernible” (776-7). This perspective proves that Aquinas also follows Aristotle’s patterns of movement explaining plants’ motion, which are through the changes of the plant’s state, its growth and its decay. The fourth element, which is the change of location, is also not applied to the movement of plants by Aquinas, in a similar way that Aristotle omitted. Lack of locomotive motion causes the life of plants to be mistakenly paralleled with the inanimate and lifeless beings. Being immobile obscures the plant life and “obfuscate[s] its life processes, camouflaging vitality behind a façade of death” (Marder, *Plant-Thinking* 27-28).

In addition to movement of plants, vegetal life is defined by holding “a certain pace and rhythm of movement” by Marder (*Plant-Thinking* 21). However, this aspect of plant life often goes unnoticed by the human senses due to its unfamiliar nature to humans. That is to say, since vegetal movement and pace do not bear similarities to human movement, it becomes challenging to be comprehended by the human perception and psyche (21). However, in the consideration of movement for plants, human-centered ideas are left aside since plant movement is performed differently when compared to animals and humans. It can be observable in a plant’s moving of its leaves towards the sun, the trunk moving upwards or sideways while growing, and the roots’ reaching out for the nutrition-

wise wealthy areas under the soil. The reason for the contemporary notions of plant movements to emerge might be as a result of recent scientific discoveries. Through these newly discovered stages, acts on invisible parts of plants have also been uncovered. Assimilating into different climate conditions and releasing toxic chemicals to fight the infectious microbic predators are some of the examples of recent findings. Trewavas accepts the variability of time and proposes the employment of time-lapse photography which proves the movement in plants. He states that the “use of time-lapse facilities has indeed indicated that plants operate on very much slower time scales than our own, but once observed in this way, movement is quite clear” (Trewavas, “Aspects of Plant Intelligence” 1). The pace of the vegetal growth is not comparable to human growth which is mostly linear. Plant growth does not follow a linear path where growth occurs consecutively throughout the years. It goes in all directions, whether on the outside or under the soil. It can be observed in various parts of the plant simultaneously. In addition to being apparent on the trunk, on the buds or on the final flowers, the pace can also be observed on the rootlets that goes in all directions under the soil. In a similar manner, the pace of growth occurs on different levels on each part of a plant. Therefore, it is a challenging task to measure the pace and the level of growth which, in return, makes it arduous for the human to perceive and relate to. Growth is expressed through the plant’s movement in different directions and in different sizes. While the trunk may leap upwards; even though, at times, it moves vertical and horizontal depending on the species, the root may move downward and sideways while under the soil. In a similar way, the growth of a bud into a flower also happens through time and at a rhythmic pace which also signals the movement of plants, along with the riches of being alive and active.

Therefore, it can be inferred that dogmatism about plant life fails in a thorough understanding of it. Clear cut contrasts like black and white do not apply to plant life, therefore categorizing plants as passive or impassive is a wrongful articulation of vegetal life (Marder, *Plant-Thinking* 69). As John Muir suggests, in the vegetal world, there is a “wild exuberance of ... motion” (“A Wind-Storm” 470). The movement and mobility is abundant in, especially, forested areas which provide a “bass of the naked branches and boles booming like waterfalls” as well as “the quick, tense vibrations of the pine-needles” (470). Density of the vegetal motion can be grasped by human senses through the sounds of “shrill, whistling hiss ... and the keen metallic click of leaf on lead” (470).

John Burroughs also suggests that plants' susceptibility to changes and their movement along the course of transformation by becoming other than itself show that these are purposeful acts. The species of flowers by following the course of the sun during the day is one of the examples. Burroughs calls these plants, such as the sunflower or *antennaria*, as "sun-worshippers" (*Field and Study* 211). These plants that follow the course of the sun throughout the day are named as "heliotropic," which is in Latin for "solar-tracking," as coined by Augustin Pyramus de Candolle (Calvo). As Burroughs states, since plants are "alert and active" within their environment, they "bend in the breeze, their long, tapering flower-heads take on tinge of color" (*Field and Study* 211). These instances prove that the plant life "seems full of purpose and enjoyment" (211).

John Burroughs exemplifies the mobility of plants by referring to weeds in *A Year in the Fields*. He states that "Weeds are great travelers; they are, indeed, the tramps of the vegetable world. They are going east, west, north, south; they walk; they fly; they swim; they steal a ride; they travel by rail; by flood; by wind; they go underground, and they go above, across lots, and by the highway" (139). They are among the ones that move around the most in the vegetal world. They get carried around by the help of the others around the vicinity. This is explanatory of the fact that they are commonly encountered and widely spread, even around the highways where they have been possibly disseminated previously. This movement which is initiated by the outside factors paves the way for the weeds to spread around various places even though the distance may be very far from one another. In some cases, they turn out to be so expansive that the weeds become the overruling species of the foreign fields. It even moves to the point where it becomes a "serious competitor for possession of the soil" (*A Year* 141). Vegetal movement is also observable in its relationship with the outer forces such as the wind. In accordance, as Burroughs proposes, "The plant depends on the wind to scatter its seeds" (*Signs and Seasons* 9; *A Year* 189). Their movement is initiated by the wind, in which "every one of these little vessels [seeds] spreads a sail to the breeze" (*Signs and Seasons* 9; *A Year* 189). Muir resembles this movement to a "waterlike flow" which creates a variety of movements and expressions in the life of vegetation ("A Wind-Storm" 467). While some species remain stiff as rock due to their existential qualities which promote their stillness on the land, some others flow in the waves which makes them "the best interpreters of

winds” (467). Muir exemplifies the former ones that remain unshaken as junipers or dwarf pines, while the latter ones are the hemlock spruce and the mountain pine (467).

Vegetal capacity for movement is also supported by the production or the existence of certain qualities that the plant has. These qualities can be considered as the plant’s “own devices” or “makeshifts” which enable and promote vegetal mobility (Burroughs, *Field and Study* 32-3, 122). For instance, the dandelion flowers act and move in ways that are complementary to their survival skills. These species “lowers itself after flowering, and lies close to the ground while it is maturing its seed, then rises up” (Burroughs, *Signs and Seasons* 9; *A Year* 189). The movement, in this case, points out to the flower’s will to protect its seeds from getting scattered earlier than their maturity. In an atmosphere where the struggle to survive surfaces, the plant’s actions become more clear and defined, as in the example of Burroughs’ dandelion. These devices, in addition, might be the systems that they apply to scatter their seeds. Included within the capacity of mobility for the plant is their dissemination of the seeds through the help of the outside sources. An example for this is the purple loosestrife plant as Burroughs records in *Field and Study*. This plant’s capability results from the fact that it uses birds as its vessel. Loosestrife is a marsh plant. As Burroughs suggests, it has been found by Charles Darwin that the marsh plants move across places through the help of marsh birds. The muddy seeds stick to the muddy feet of those birds; thus, they obtain the chance to move from one place to another (38).

In addition to the methods that they use for dissemination, shapes of particular seeds are also pivotal for this cause. The fact that the burdock plant is possessive of “eager hooks” which are quite high in number on a single burr of the burdock, as much as being “more than two hundred ... on each burr,” prove the plant’s expansive capacity to move (Burroughs, *Field and Study* 35). The ontological quality of having hooks leads the way for expanding towards further lands through the help of the hooks which cling to various vessels through the journey of dissemination. Therefore, the hook can be accepted as a device that the plant use for re-producing. Another aspect that the plants make use of is having tailed seeds. Burroughs gives an example of such a plant which is the wild clematis. As he observes, these plants have “long, feathered tails to aid in their dissemination” which is unique and “It is the only seed I know of that the wind carries by

the tail,” as he suggests (39). The wind creates arbitrariness which results in rare sprouting of the plant since it fails to be planted in the soil or it may not move further away.

The above-mentioned capacities for movement are appropriate to “The plants that travel by runners above or below ground” (Burroughs, *Field and Study* 39). Into the list for plants which are capable of movement is added the ones that “travel by walking” as Burroughs suggests (39). As he notes, black raspberry and ferns are amongst the walking ones which are very few in number. Burroughs refers to the fern as the “walking fern” (39). Their walk, according to Burroughs is very slow, yet steady, which allows them to reach the desired destination eventually. Similarly, plant movement is through their roots, as well. They are directed towards spaces which are nutritive. Their roots grow and move towards a certain direction even though the target is far-reaching. This movement results in the tree’s root to become “six or seven feet long,” according to Burroughs, who observes a hemlock in *A Year in the Fields* (193). Even that movement has “bridged more than half the distance that separated the tree from the land” (193). This shows that the plant has indeed travelled a long distance away from its stalk. It sends out its roots to a desired location and reaches out to that target for as long as it connects with its life source. Similarly, Muir also provides an example to the travelling nature of plants. He suggests that “trees are travelers ... They make many journeys, not extensive ones,” but their small movements such as their “tree-wavings” occur frequently (“A Wind-Storm” 472).

1.2.3. Obscurity

In addition to accepting plant liveliness, growth and mobility; another key point, in the consideration of plant life, is their obscurity. The world of plants, is in a state of “obscurity,” which tends to hide. Its growth and processes are not easily observed or seen at a single glance. This mode of being obscure has been seen as “the marker of their life,” by Western perceptions (Marder, *Plant-Thinking* 9). However, the key principle of “plant-thinking,” as proposed by Marder, is to let plants be in their world, regardless of how much that world may seem invisible or edgy. As John Burroughs also suggests, within “the book of nature ... There is coarse print and fine print; there are obscure signs and hieroglyphics,” therefore, while some processes of nature might be clearly observed, some others might be performing invisibly (“The Art of Seeing Things” 12-3). In this scope, “respecting the obscurity of vegetal existence” is an important part of Marder’s

approach, as can also be seen in Burroughs' perspective (Marder, *Plant-Thinking* 9). An encounter with the vegetal world means to see the plant life which is hiding under a veil. Nature and plant life do not easily reveal their outlying parts for vegetal life is more on the side of obscurity. Plants, especially, tend to hide and cover themselves. Most of the indigenous weeds to the United States, for instance, "are furtive and retiring" (Burroughs, *A Year* 153). In order to protect themselves from certain dangers, they "hide in corners and remote waste places" (153). This mode of existence becomes a "habit" which describes plants' existence (153). Life of vegetation hides under the veil "behind the screens – a screen of leaves or of grass, or of vines, or of tree-trunks" (Burroughs, *Under the Maples* 40). Beyond the veils of leaves and grass, patterns of life, growth and change pursue on incessantly. For that reason, Burroughs highlights the importance of his unique perception that necessitates a scrutinized observation as such. In this regard, the key to get the truth in nature is through a long and intended watch of nature since most of the processes happen "in a corner and surreptitiously" (*A Year* 209).

It requires acceptance of and respect to the obscured vegetal life without attributing phenomenal qualities to the plant. This point diverges Marder's outlook to the vegetal life from the metaphysical readings of the plant by Western philosophy. If the perception attempts to "chas[e] it [the plant] out of its concealment and by shedding light onto it," it would be to "violate this life, to overlook its non-phenomenality" (Marder, *Plant-Thinking* 28). In a similar manner, Burroughs also touches upon an analogous note in his account that "Study of nature deepens the mystery and the charm because it removes the horizon farther off" ("A Sharp Lookout," *A Year* 204). Examination of plant life does not clearly offer all related facts onto the plate. Rather, it facilitates a more focused interest by adding up to its mystery. It is also implied, in Marder, that the plant life is non-phenomenal, thus, it would be wrong and insensible to remove this life out of its hidden environment in order to observe and understand. Rather than moving the plant in the open, this tendency of obscurity must be respected and taken into account while getting in contact. Marder elucidates this as, "to get in touch with the existence of plants one must acquire a taste for the concealed and the withdrawn, including the various meanings of this existence that are equally elusive and inexhaustible" (Marder, *Plant-Thinking* 28). As a post metaphysical approach, an encounter with the vegetal being necessitates "to expose itself to the possibility, the chance, and the risk of undergoing a drastic transformation –

to the point of turning unrecognizable” (94). To establish an encounter, an open mind perceives the changes and differences, in addition to accepting it as a part of plant being.

In thinking of plants, two antipoles are taken into account; the light and the dark. In this dichotomy, light signifies openness, visibility and clarity, while darkness denotes obscurity and hiddenness. This contrast, as already mentioned above, are the two key points in the understanding of vegetal life (Marder, *Plant-Thinking* 30). Both are taken into consideration in “plant-thinking.” When looking at the visible side of the plant, the hidden facade must not be left aside. Each part must be considered within their own light no matter how dark they may turn out to be, according to Marder. To see the darkness of plant life strengthens the understanding of it, because it requires a scrutinized study (Marder, *Plant-Thinking* 30). Burroughs also brings forth the darkness of vegetal life which is less appreciated by the careless observers. Embracing the light and the dark of natural life, Burroughs values both in the consideration of the plant life since he fancies “to linger long over each page of this marvelous record, and to dwell fondly upon its most obscure text” (“The Art of Seeing Things” 13). To connect the thoughts of both Burroughs and Marder, it can be said that both approaches similarly focus on the scrutinized study of vegetal life as a whole, which is possible through the acknowledgement of the hiddenness of plant life along with an extensive amount of time and effort that are spent in thinking of and observing nature.

An encounter with plant life adds up to the numerous traits and meanings of a singular entity or plant. However, the concealment of plant life backlashes as a general and superficial outline of what is on the surface of the subject. Thus, it disregards characteristics and individual traits of natural entities. Rather than arousing respect and appreciation of plant life which tends towards obscurity, Western thinking depreciates plant life due to its concealment. Burroughs makes a related remark on his critique of Sir Walter Scott’s utterances on his journal. He quotes from Scott’s journal, ““Nothing is so tiresome as walking through some beautiful scene with a minute philosopher, a botanist, or a pebble gatherer, who is eternally calling your attention from the grand features of the natural picture to look at grasses and chuckie-stanes”” (qtd. in “The Art of Seeing Things” 9). Scott touches on the grand figures and general perspectives on nature, while disparaging the small and single details of natural beings, such as the smallest beings like

the common weed and grass. While the perspective is on the general and awe-arousing subjects, Burroughs calls for a look directed at the smaller ones. Smaller and humbler ones, such as the “simple grass,” as Burroughs puts it, bring “a new experience of the beauty and effectiveness” (*Signs and Seasons* 234). The rare encounters and occurrences are, similarly, the key stones of Marder’s model of encounter. As Burroughs also suggests, nature that is for the general viewers is “like the air and the water that all may absorb,” but what differs the encounter and the observation from the general outline, is that “the specialist [encountering observer] gives ... some particular element or substance that only the few can appropriate” (“The Art of Seeing Things” 10).

Burroughs also represents nature as a text that is meant to be understood and reflected to. For him, “The fields and woods and waters ... are a book,” which is left to the observer to take into consideration “if he will” (“A Sharp Lookout,” *A Year* 204). Natural facts and occurrences are “written words the observer is to arrange into sentences,” (“Sharp Eyes” 38). These facts are laying around for the observer to find and see. Later, they turn into sentences in the mind of the observer. However, a key is to “not only learn the writing,” but also, to be able to “translate the language, the signs” (“A Sharp Lookout,” *A Year* 204). These words and signs might also be encrypted in nature, therefore it falls to the observer to decipher them since they are quite complex and combined in a way that is not easy to untangle. Here, the translator applies their “wit” and years of experience into the translation (204). The translated information proves that there is more to what is seen in nature. The observations are disclosed through the unique way of perception which are verbalized in Burroughs’ essays focusing on the power of observation. This perception of attempting to decipher the unseen and unsaid signals that Burroughs also is appreciative of the hiddenness that prevails in nature. He believes that a true observer may have the power to truly understand and “translate” the players in nature, as well as reflecting it onto paper. In this case, as Black suggests, “The metaphor broadens, then, from the translator’s viewpoint to the linguist’s. The more proficient the observer becomes with the language of the observed, the better the chances that a broader, farther-reaching (even mutual) understanding can be reached” (68). It can be understood that, elements in nature cannot be detected hastily since they are not completely apparent. While the observer is in the position of the translator who sees and understands the details and occurrences in

nature, their position changes to that of the linguist since these previously translated notions are becoming reflected on paper.

The Greek word *phusis* stands for the world of vegetation. In essence, the word is derived from *phuo* and *phuein* which signal the generative power of the plant that also entails growing on the outside. Vegetal life's tendency to cover itself is a part of the characteristic traits of *phusis* (Marder, *Plant-Thinking* 28). Vegetation's "fugitive mode of being" and being out of sight is encrypted in its life. As Marder quotes from the fragments of Heraclitus, vegetal life "loves to hide" (qtd. in Marder, *Plant-Thinking* 28). John Burroughs captures a similar trait in plants in *A Year in the Fields*. He comes across a certain species of orchids in a place that is rarely inhabited by orchids. He states that this appearance of the plant defies the expected regionality which is found in these species, which accounts for spaces that are convenient for the plant to flourish. Rather than locating the plants "on hills," Burroughs encounters them in "low, damp places in the woods" (132). Similarly, John Muir captures the tendency to hide of plants in his "Calypso Borealis," in which he tells of his encounter with the species which is a rare kind of the orchid family. It is not easy to find the *calypso borealis* as it tends to hide away out of sight in the depths of the forest, especially in winter. The name of the genus, *calypso borealis*, translates as "the Hider of the North," which is descriptive of the nature of this plant ("The Sojourn in Canada" 120). Even though there is action and movement in the life of plants, it is hiding under the covers. Similarly, the plant's emergence or coming out into being also brings forth its drawing back and egression. It is evident in the plant life since it is in a state of extraction whilst being expressively generous on the outside. Thus, the dichotomy of visibility and invisibility can also be traced in the plant's behavior in its exposure to the sun. While the outer part of the plant grows visibly, the other unseen parts which are under the soil dig deep via the roots. One part moves toward the sun, while the other moves towards the dark. Even though the observable part shines on the outside with growth and liveliness, the down part likewise pursues growing under (Marder, *Plant-Thinking* 28-9).

An important part of Burroughs' "A Sharp Lookout," is that he understands the tendencies of nature in the form of hiding and covering itself. As he suggests, "The gold of nature does not look like gold at first glance. It must be smelted and refined in the mind of the

observer” (218). Through the above stated lines, it can be inferred that Burroughs underlines the obscurity of nature. Gold is hidden under the appearances of nature but it is still gold. Through observation and the art of seeing, the gem of nature comes out. Burroughs asserts that there is “unknown quantity” in almost all parts of nature which is challenging to decipher and measure (“A Sharp Lookout,” *A Year* 198). This aspect of nature signals the abstruseness of natural life. “The woods,” especially, carry “unknown treasures” (*Signs and Seasons* 257). There remains at least one mysterious aspect in consideration of natural life that is not easily decoded. Nature and plant life do not give away its facts easily, according to Burroughs, since the “arts of concealments” are applied carefully by the vegetal beings (77).

Within the concept of hiddenness, a paradox lies. Since it is the intentional veil that the plants hide under, it does not mean that plants dwell on a completely closed and invisible side. Aristotle and Hegel perceive the life of plants as “superficial” (Marder, *Plant-Thinking* 31). This may be physically and botanically true since the plant is faced outwards in order for absorbing as much sunlight as possible, which is indispensable for its growth. In line with this idea, Marder states that, Hegel also related “the inner life of the plant ... [with] its outer vitality” (31). Accordingly, as much as life is inside of the plant, it is also on the outside. Underscoring the importance of the superficial vitality of the plant, Hegel proposes that “the plant’s vitality in general ... does not exist as a state distinct from the plant’s inner life” (*Hegel’s Philosophy* 304). Therefore, vegetal vitality is not hidden away on the inside, but rather, it is traceable on the outside since it is implanted in the superficiality of the plant. Instead of digging deep for the cause of finding a meaning, the most visible facade tells much about the being itself. In fact, what is perceived as hidden and secretive is the most apparent one. As Burroughs suggests in *A Year in the Fields*, “Strange and curious things in the air, and in the water, and in the earth beneath, are seen every day, except by those who are looking for them” (77). For the plant, it can be said that the most visible and abundant one is taken for granted, which indicates “plant-blindness,” because of its closeness and familiarity to human life. It is looked over and accepted as all systems in the plant are hidden, not be recovered, or not even to be existent. As Burroughs states “How insignificant appear most of the facts which one sees in his walks, in the life of birds, the flowers ... or in the phases of the landscape” (*A Year* 218). However, as the plant superficiality proves, the examination

and understanding of the plant life “refers to this life’s unquestioned obviousness,” rather than “concealing a deeply buried secret” (Marder, *Plant-Thinking* 32).

Similar to Marder who proposes that the plant life is in guise, Burroughs also perceives the aforementioned acts as a “guise [that] she wears” (*Under the Maples* 39). He points out to the minimal members in nature which are slow and out of sight. He proposes that “things escape us because the actors are small, and the stage is very large and more or less veiled and obstructed;” therefore, nature is inclined “to conceal rather than expose it” (“The Art of Seeing Things” 7). Humankind fails to capture life in the green spaces since they “little suspect how the woods and wayside places swarm with life” (*Under the Maples* 16). The commonest of places are mostly neglected since they are not expected to be filled with life (17). As Burroughs suggests “The art of nature is all in the direction of concealment,” in which most members are in a tendency of hiding and keeping out of sight (“The Art of Seeing Things” 10). The actors are not seen or spotted hastily by the careless observers because they “do not look intently enough” and also because “the book of nature” acts against the favor of being detected (“Sharp Eyes” 57, “The Art of Seeing Things” 7). This is because “the page rarely presents a contrast of black and white, or even black and brown, but only of similar tints, gray upon gray, green upon green” (“The Art of Seeing Things” 7).

In nature, boundaries are not strictly cut, therefore, there is not clear distinctions as sharp as black and white. The lines are blurry and intermingled, where “there are no sharp lines” (Burroughs, *Field and Study* 189). The acts are very close to one another and quite alike that they either go unnoticed or seem as if not happening at all because of their slowness. This fact brings forth the concept of “plant blindness” which is already discussed in the Introduction section of this study (Wandersee and Schussler 3). As in Burroughs’ terms, the recurring of the natural processes which are small or follow a similar manner, may go unnoticed by the unobservant travelers. As he further discusses, “How insignificant appear most of the facts which one sees in his walks, in the life of birds, the flowers ... or in the phases of the landscape” (*A Year* 218). This tendency of hiding or being under the veil results in plant blindness which can be simply defined as backgrounding of vegetal and natural life. Humankind fails to fully understand vegetal life since they “little suspect how the woods and wayside places swarm with life” (*Under the Maples* 16).

Indeed, “fullness of life” prevails in the “hidden places of nature” (17). However, an encounter with the vegetal life defies the boundaries of plant blindness. As Burroughs suggests, in *Field and Study*, “Familiarity with things about one should not dull the edge of curiosity or interest” (214). Even though being familiar with the most common elements in nature limits the perception of the seer, the most acquainted entities, such as the “simple grass,” as Burroughs puts it, bring “a new experience of the beauty and effectiveness” (*Signs and Seasons* 234). In fact, as Burroughs suggests, “there is nothing more potent and mysterious than the common elements and forces” (*Field and Study* 269). The will to know and learn about the world of vegetation goes through the most common things in nature. Thus, being familiar to certain species does not hinder an encounter or a lookout to plant life. Rather, it feeds the curiosity and encourages closer approaches.

1.3. ENCOUNTERING & THE ART OF SEEING PLANTS

In the discussions about vegetal life, it is important to highlight the similarities between Michael Marder’s and John Burroughs’ perceptions on plant life. The method of “encountering” is referred to by Marder, in order to describe the moments of human contact with plants. By Burroughs, the instances of such proximities are revealed as seeing and observing. There is more than a hundred years of gap between the two concepts. Yet, Burroughs’ outlook to plant life bears similarities to Marder’s more recent recognition of the human contact with plants, namely the encounter. Both perspectives advocate a biocentric, rather than an anthropocentric approach. In that, they perceive the plant life by their own capabilities within the plant terms, thus calling for a “vegetative point of view” (Sheridan 39; Pollan, *The Botany of Desire* xvi).

1.3.1. De-centered Perception in Marder and Burroughs

In one of his journals, John Burroughs states that “I simply see and describe. I must have pure result. I paint the bird for its own sake” (Barrus, *The Heart* 74-5). Through his essays,¹⁰ relating to observation and seeing, he focuses on “not just what the naturalist sees, the detail of that observation,” but also he creates a base ground of “how that act of seeing is accomplished ... [thus, he is] forming, as it were, a natural history of seeing, a

¹⁰ Consecutively, “Sharp Eyes” (1879), “A Sharp Lookout” (1886), “Hasty Observation” (1894), “The Art of Seeing” (1908), “Straight Seeing and Straight Thinking” (1908), and “Intensive Observation” are among the essays that focus on John Burroughs’ unique perception.

poetics of observation” (Black 67). His philosophy of seeing calls for “a shift in perspective, in modes of looking, a change from the essentially inward glance ... to a more external one” (Black 63). This perception signifies the shift towards the physical bodies of plants as beings in themselves. Rather than the metaphysical and phenomenal look towards the plant world, this perception focuses on the beings as themselves within their own environment. The “external glance” that Burroughs applies looks into the values of beings, specifically on their own, along with their systems of living and their relations to other beings in the vicinity. His subjects were “whatever he found close at hand or underfoot” (63). His immediate nature brought up the subjects of his observation. He removed his perception from metaphysical and transcendental grounds which played a prominent part on his previous writings under the primary influence of Thoreau and Emerson (62). His unique perception is formed by focusing on the close-at hand and hard facts of “the great, shaggy barbarian earth” which proved that the natural facts are not encrypted as if they are “sermons in stones” (Bergon 13).

Plants do not hold ownership or possessiveness in the plant world, according to Marder. However, this “not-having or non-possessiveness does not at all signify the sheer absence of what we may call ‘plant-world’” (*Plant-Thinking* 8). Marder separates these two worlds from one another. There is the human world and the plant world. Within their own means, plants inhabit the land, which is their world, that is comprised of their distinctive relations to their environment (Marder, “Plant Intentionality” 1367). The human world is another realm where humans engage in other relationships. Recognition of the solidarity of the plant-world means that plant “otherness” and “uniqueness” is acknowledged. Through this distinction of the two worlds, Marder does not suggest a place to be claimed by humans in the vegetal world. Rather, it is to let the vegetal world be on its own. He states “the vegetal world ... is the world *of* and *for* plants,” thus it is neither offered for human use, nor it is for humans to be a part of (*Plant-Thinking* 9). Humans do not need to have a spot in the vegetal world, let alone interfere with any of the processes in the plant world. This world is “a place *for them*, interpreted *by them*” (Marder, “The Place of Plants” 191). The main point of his “plant-thinking” is to leave the plants to flourish and grow in the plant world.

John Burroughs' perceptions on observation and seeing entails an approach in which the human is de-centered. Removing the humanistic perceptions, such as instrumentalization or classification or mystifying of the natural being aside, Burroughs states that "There is nothing human in the universe, all is unhuman" (*Field and Study* 306). As species belonging to humankind, as Burroughs suggests, "Our prudence, our economies, our selection, our short cuts, find no parallel" in the considerations of vegetal life (*Field and Study* 132). These lines are representative of Burroughs' unique outlook to the world of vegetation which focuses on solely the plant and the processes that it goes through in its lifespan. Contrary to Aristotelian notion of "ladder of Being," Burroughs remains neutral in his consideration of human life in comparison to non-human life (*Plant-Thinking* 38). It is evident in the lines that follow as "man is as much a product of the earth as are the trees and the grass" (Burroughs, *Field and Study* 306). Therefore, it can be said that his unique perception stems from the belief in the equality of beings in terms of their existence on Earth. Such ways of thinking enable a critical stance which de-centers the human in the considerations of non-human beings.

Burroughs' approach to nature, which tends to be more down to ground and physical, prioritizes the importance of perception in nature. His approach, while calling forth being close to nature, also entails being attentive and truthful through the power of observation. This unique approach is what removes him from the Western notions of natural and plant life, even though the timeline that he belongs to might recall a more philosophical, phenomenal and transcendental approach to vegetal life. As a critique of the Western perception which focuses on "the uniformity of nature, or in the unchangeableness of natural law," Burroughs stands on the recognition of vegetal life as "unequal, capricious, [and] incalculable" (*Field and Study* 40). His hands-on and eyes-on approach to nature looks into the physical beings in nature as they are existent in nature. Thus, he handles the plant kind as they are in their vicinity, disregarding the metaphysical connotations that they are associated with. His critique of the Western metaphysical notions of plant life is evident in the lines where he compares the "modern man" with the "earlier man" ("The Art of Seeing Things" 9). Modern one is the person who has removed themselves from the limitations of Western thought, while the earlier person is the one who is strongly attached to the Western notions that look down on natural and plant life. While the latter perceived nature "with an eye of fear and superstition," the former grew eyes which are

full with “sympathy and love” (“The Art of Seeing Things” 9). The observer that sees closely and truthfully does not let the individuals escape the eyes. Through a steady and scrutinized look, which is rid of “obtuseness and indifference” as proposed by Burroughs, the singularities and specifics of nature and vegetal life are brought out into the open (*Under the Maples* 39). This knowledge brings about a record of plant life which is active, vivacious and out in the open. This way of looking at the plant life brings out a “comparatively new knowledge, but it now modifies or colors all our old conceptions” (*Field and Study* 174). Still, it may not be appropriated by the Western conceptions because of its “impersonal and strictly objective character” (174). These lines are suggestive of Burroughs’ contemplations that de-center the human and the human mind from the perspectives that define patterns of vegetal life and growth.

While Western mindset advocates a static attitude towards plant life which rely on fixed rules and definitions, Burroughs stands on the opposite side since dogmatic notions do not suffice to contemplate on the life of vegetation. As he suggests, “We cannot corner Nature and keep her cornered. She would not be Nature if we could” (*Under the Maples* 141). Similarly, dogmatic ideas in the considerations of vegetal life are not appropriate since they lack the side of vegetation. As Burroughs suggests in *Under the Maples*, “We cannot be dogmatic about Nature,” because the human-centric notions perceive Nature as “partial and inconsistent” (145). As Burroughs further discusses, “Dogmatism about nature, or about anything else, very often turns out to be an ungrateful cur that bites the hand that reared it” (“A Sharp Lookout,” *A Year* 213). Dogmatism about nature is not applicable and inconclusive due to the fact that the perception rising from it is likewise partial. Additionally, clear cut definitions and generalization do not apply to the vegetal life. This is because nature cannot be simplified as “a formula” (Burroughs, *Under the Maples* 147). One fact may be true for one of species while it never occurs in another. Exceptions are common and rare sightings or occurrences can be come across in nature and vegetal life.

In the act of seeing, the significant point is to be able to see and take notice of all processes happening around the seer’s vicinity. For Burroughs, the observation starts at where the observer is. It does not necessitate to search farther or explore relatively more scenic spaces. His essay “A Sharp Lookout” reflects his focus on the importance of location.

Through this essay, he “moves beyond a focus on *what kind* of person will be an effective reader of nature’s book to *where* -what kind of place- this person ought to be in order to be a good reader” (Gould 153). Whereas both essays “Sharp Eyes” and “A Sharp Lookout” bear similarities in their essence of developing the human perception and centering it on other-than-humans, they follow different paths in establishing their grounds. While the former looks into the traits of a good observer, the latter highlights the place of this observation. It can also be traced in the choice of titles for the essays. When the first one is focused on “the eyes,” the other looks into the “lookout” (Gould 153).

The space where the observer is, even if it may be the backyard, is the first step to be taken for the purpose of observation. Augmented “locality” is one of the most desired aspects of human encounter with the natural world (“A Sharp Lookout,” *A Year* 204). As Burroughs suggests, “The enticement of the far-away is mostly in your imagination;” the crucial part lies in the focus on the locality which encourages to, “let your eyes and your imagination play once more on the old familiar birds and objects” (*Under the Maples* 39). Valuing locality and pursuing locally stronger relations would strengthen the observation. In the act of seeing, the vicinity or the space that is familiar to the observer stands out as having various components and elements that the eye has missed. As Burroughs proposes, “Strange and curious things in the air, and in the water, and in the earth beneath” are happening constantly; yet, they are not always captured (*A Year* 77). Being familiar does not tire the observer, rather “What you miss once, you will hit upon next time” (Burroughs, *Field and Study* 214). Burroughs notes that “the place to observe nature is where you are,” and no matter how acquainted the eye may be to that space “You will not find just the same things” even if “the walk you take to-day is the walk you took yesterday” (“A Sharp Lookout,” *A Year* 182). Similarly, in *Field and Study*, he also suggests that “the best place to study nature is at one’s own home, - on the farm, in the mountains, on the plains” (213). On a similar note, Burroughs states that “Familiarity with things about one should not dull the edge of curiosity or interest. The walk you take to-day through the fields and woods ... is the walk you should take to-morrow, and next day” (214). He articulates that the will to gain more knowledge about the surrounding natural life does not diminish even though a certain familiarity might be settled towards the environment.

1.3.2. Encountering and the Art of Seeing Plants

Similar to the concept of “plant-thinking,” Marder’s concept of “encountering” with plants is of great importance in the sense that it facilitates a corrected perception of vegetal life compared to the Western perceptions. This way of thinking and perceiving facilitates a broader look to the world of plants. Marder explains the “encounter” with plant life as an obvious interactivity with the vegetal world. In an “encounter,” the participants “engage in an interactive, if not always symmetrical, relationship,” which implies that an interaction occurs even if both parts are not on the same level, or on equal stand points (Marder, *Plant-Thinking* 8). Encountering provides an active relation on both sides of the parties that are involved, thus creating a reciprocal relationship. As it is also suggested in Burroughs, reaching out to nature through science and developing an understanding of its traits can be considered as an encounter, as well. “Science,” as a part of this encounter, “does not mar nature” (“A Sharp Lookout,” *A Year* 204). Instead, it opens a window to natural life and plant life which encourages and highlights human inclusion in it. The “encounter” develops a deeper and higher thinking which makes it possible to create a closer relation to nature on the side of human cognition. Within this encounter, Marder suggests that “vegetal life is coextensive with a distinct subjectivity with which we might engage, and which engages with us more frequently than we imagine” (*Plant-Thinking* 8). He implies that humans witness plants’ unique character and recognize their singularity through their encounter. Within this scope, it is inferred that plants’ constant engagement with humankind is more common in comparison to human encounter with plants. This assumption might result from the unconsciousness of the party of humankind in the encounter with the nonhuman kind. As Burroughs also touches on this point, “One seldom takes a walk without encountering some of this fine print on nature’s page” (“The Art of Seeing Things” 17). By the word choice of “fine print,” he refers to the visible side of natural life which is openly out there for the human perception. However, even this fine print might be lost to the unprepared and careless observer.

John Burroughs’ collections of essays are written through his perspectives mediated by the power of observation. His stance in his unique regard of the plant life bears similarities to Marder’s concepts of “plant-thinking” and “encountering.” Even though there is a century in between the two, John Burroughs’s contemplations on plants shows that he

also applied a perspective that is parallel to Marder's "plant-thinking." Burroughs' nonfictional works are composed of nature essays written throughout the years based on his perceptive participation in his surrounding environment. In observing nature and plant life, he utilizes two tenets that define his approach. He observes both as a poet and as a scientist, therefore his observation goes through these two grounds. His eye as a poet is much more unapparent, while his scientist eye is more dominant in his observation. Even though the scientist look is the central point in seeing, it still is not meant to exhaust his findings with solid data (Black 63). For Burroughs, seeing is an act that is physical and a part of human functions. Rather than looking beyond what is physically on the outside and obvious, Burroughs' seeing implies to see what is out front. He was critical of "the poet and philosopher [who] were inclined to do so" (Black 63). This brings forth his stance against the metaphysical notions of plant life which look not in the plant but in what it entails in terms of utilitarian gains for humans. His criticism is evident in the lines from "A Sharp Lookout," which follow as, "I (unwisely perhaps) sought to smelt this gold of the poets in the naturalist's pot, to see what alloy of error I could detect in it. Were the poems true to their last word? They were not" ("A Sharp Lookout," *A Year* 213). Through these utterances, he emphasizes the lack of truth in the poems which put the plant and the natural life on a pedestal of further meanings, which reach beyond the actual meanings of the plant life. Even if a rare aspect of natural life is recorded as an exception to the general knowledge, this brand new information cannot define the whole truth since they are either "accidental facts" or "specific facts," according to Burroughs (213). On this note, it can be said that Burroughs stands on the side of the natural facts and physical looks, similar to Marder. Natural facts and notions are seen less valuable on their own since they do not suffice to insinuate "higher truths" as necessitated by the Western philosophy (Black 63). However, for Burroughs "the philosophical fact was not necessarily 'higher' than the natural one" (63). Therefore, it can be understood that assigning philosophical and metaphysical connotations to the plant and its life is not the only method in understanding and examining plant life. In an encounter with plants, human world coincides with the plant world, which consists of plant relations within their own environment. Two distinct worlds or "temporalities", as Marder suggests, become converged during the course of an encounter (Marder, *Plant-Thinking* 8). This encounter is an "unwilled and unplanned" meeting where one cross-engages with the other (10).

Marder resembles his concept of “encounter” to the Portuguese word, “desencontro” which does not have a counterpart meaning in English language. He describes this encounter, basing it on the Portuguese version, as “a narrowly missed meeting, a crossing of paths that was about to happen but ended up not taking place, or ... [as] an encounter that is too improbable and was never meant to happen” (13). Therefore, Marder’s concept of “encountering” does not seem as an easy task that could occur frequently since it is not meant to be happening in its essence. Rather, it is a complicated meeting that is expected to happen, but it takes place rarely. Burroughs also touches a similar spot in his “The Art of Seeing Things,” where he accentuates the importance of finding out specifics in nature that are not originally intended to be found. When the mind is set to a specific aim, it is highly probable to find the object of question (“The Art of Seeing Things” 6). However, the real turning point is to spot the unpremeditated objects. This spontaneous meeting that Burroughs pays attention to alludes to Marder’s concept of “encountering” with plants. Thus, it is crucial to bring into light an unexpected being that has initially not been intended to be looked for.

In Burroughs’ terms, “spontaneous and unpremeditated seeing” is one of the key principles in the completion of the art of seeing (“Art of Seeing” 6). An observer is good and skilled when rare and unexpected details come out in the process of observation. He mentions that anything can be found when they are aimed to be found. If the goal is to locate a specific family of plants out in nature, they can easily be spotted since the eye is focused to find only that fixed target. However, the skilled observer’s perception functions as “‘an eye practiced like a blind man’s touch’ - [which is] a detective eye that reads the faintest signs” (“Art of Seeing” 6; *Under the Maples* 81, 133). This unique perception entails bringing out the unexpected and hidden details in nature. This notion bears similarities to Marder’s “plant-thinking” since both approaches accept the hiddenness and obscurity in nature, along with paying respects to this tendency of concealment of natural life, especially plant life (Marder, *Plant-Thinking* 9). The outcome of this encounter, as put forth by Marder, is not meeting the plants thoroughly and becoming familiar with their traits. It is not probable to be acquainted with the plants since they do not fit to the standard ideals of constructed categories. According to Marder, they are not themselves due to having non-identity. Similarly, they are not comparable to or associated with another since they resist to standardized norms on the philosophical

grounds. Since there is not another comparable to their being, they cannot be categorized as entities “as such” (Marder, *Plant-Thinking* 13). What this approach intends is to grasp a sense of their ontological being through “brush[ing] upon the edges of their being, which is altogether outer and exposed, and in so doing to grow past the fictitious shells of *our* identity and *our* existential ontology” (13). Thus, the core of Marder’s approach is to get an understanding of plants whose being is directly visible on the outside. In doing so, prioritizing of their physicality is of essence. Without imposing humanistic identities or “a sense of ... humanness” to the vegetal life, an encounter accompanied by “plant thinking,” aims to see vegetal beings as they simply are (Burroughs, *Field and Study* 115).

1.3.3. John Burroughs and Observation

John Burroughs’ perceptions on observing and seeing are gathered in his essay “The Art of Seeing Things,” which was published in his collection *Leaf and Tendril* (1908). Burroughs’ perception is formulated by himself and it is unique to himself. Bearing parallels to Marder’s approach, Burroughs advocates simply being present in nature in order to see and understand the natural life, especially for the purpose of this study, plant life. In the essence of an approach towards nature lies the bodily function of seeing. Through the act of seeing, Burroughs necessitates a glance at the objects found close in nature. By means of this approach, he directs the focus of human attention to other-than-human entities, which are the animal and vegetal life. The key of seeing that paves the way for the unveiling of vegetal life goes through the “Power of attention and a mind sensitive to outward objects” (“The Art of Seeing Things” 11). Attentiveness directed at objects which are outside of humans is an indispensable part of seeing. Burroughs proposes that seeing things is a form of art. It is an art because it requires “practice or inspiration” (“The Art of Seeing Things” 1). While science is effective in teaching and learning things, art calls for repetitive action and practice, along with arousing senses and appealing to them. It necessitates the attendance of the eye to the practice. Seeing is an art; therefore, within the concept, keeping the senses alert and readying the eye and the ear are considered to be a part of the art, as well (10). As Burroughs puts it, having a “seeing eye and the hearing ear” is required to understand the natural life (*Under the Maples* 40). As Batur and Özdağ suggests in “Morning on the Artemisia Steppe,” “It takes a lot to look at the world with a seeing heart, and even more to retain an impression, a

feeling, and understanding” (464). Act of seeing is a demanding function that requires the seer’s effort and time and dedication. It touches upon the senses along with improving them and directing towards the other. It provides a mutual connection between the two parties since the physical act of seeing turns into an impression of the perceived natural life. As Burroughs states, “The art of seeing things is not something that may be conveyed in rules and precepts; it is matter vital in the eye and ear ... in the mind and soul” (“The Art of Seeing Things” 1). Burroughs does not aim to teach how to see, since “the art of seeing” is within the capacities of humans. He states that while all humans may have eyes, they do not work for the same purpose. For that reason, it is not possible to teach “the art of seeing” to the ones who lack intensive eyes. Those ones are not the “keen-eyed observers” who are sharp and purposeful in their lookouts (2).

In shaping his perspective in “The Art of Seeing Things,” Burroughs singles out one of the most essential traits of the human senses, which is “love.” As he indicates, “Love sharpens the eye, the ear, the touch; it quickens the feet, it steadies the hand, it arms against the wet and the cold” (2). Thus, it can be said that love, in this sense, is the motive behind his unique perception. He notes that “What we love to do, that we do well. To know is not all; it is only half. To love is the other half” (2). Combination of knowledge and the love of nature defines the underlying ground of Burroughs’ “Art of Seeing;” as it is also stated by Batur and Özdağ, “what makes seeing an art is skillfully molding knowledge and observations into a love of nature” (“Morning on the Artemisia” 464). The love and aspiration for an object are the underlying factors behind the ability to see. As Burroughs states, “The eye sees what it has the means of seeing” and he explains these means as the motive that directs the eye (“The Art of Seeing Things” 21). What motivates the eye, in this case, is the love and affection of the person for the natural object or being. Love is strengthened by the human mind through contemplating on it and thinking about it. Thus, it necessitates a mode of thinking as in Marder’s concept of “plant-thinking.” The more the mind envisages on the natural being, the more the love sharpens, as does the eye. According to Burroughs, “Nothing can take the place of love;” since “Love is the measure of life: only so far as we love do we really live” (3). With all of the aforementioned concepts considered, Burroughs art of seeing stands out as the “combination of knowledge, imagination and heart,” which necessitates “not only seeing with one’s eyes, but having the power of ‘inward eyes’” (Batur and Özdağ 464).

Having an “inward eye” is of essence in the art of seeing. As Burroughs suggests in “Sharp Eyes,” “some persons seem to have opened more eyes than others,” through which, “they see with such force and distinctiveness; their vision penetrates the tangle and obscurity” (37). Through the “inward eye,” they manage to see along with their love of nature. As a result of having “not outward eyes, but inward,” these ones “see beyond the first general features or outlines of things” (37-8). “Inward eyes,” which are the “keener eyes,” help remove the cover on nature which hides the unique details and singularities (38). Having “inward eyes” is what distinguishes people from the ones with “outward eyes.” While the ones with the latter are “only half alive to what is going on around them,” the ones having the power of the former are “keenly alive: their intelligence, their powers of recognition, are in full force in eye and ear at all times” (“The Art of Seeing Things” 4). Having inward and keen eyes in the art of seeing entails being alert and attentive “not by conscious effort, but by natural habit and disposition” (4). It involves being highly sensitive and observant of the things that pass by. Even though these things happen quickly, or quite slowly, the “keen-eyed observer” still identifies unique characteristics of the players in nature. This happens for the keen observer naturally, not by an intentional attempt, to catch an impression.

In terms of Burroughs’ classification of an observer, keen observer is the one who “puts all the powers of his mind in perception; every faculty is directed outward; the whole mind sees through the eye and hears through the ear” (“The Art of Seeing Things” 11). All bodily senses are applied along the way of observation which brings forth “how delicate and sensitive a man’s relation to outward nature” (“A Sharp Lookout,” *A Year* 217). Human relation to nature, in terms of Burroughs, is represented through a relationship of senses which are susceptible to the surrounding environment. A successful eye holder is the one that has an amplified mixture of all senses and a focused mind. The mind and all faculties that the observer has focus solely on the perception. Eye sight and sense of hearing are the two components of perception which come together in the act of seeing. These two senses sharpen for the cause of observation. They are readily expectant of encountering the plant life through “being ripe for them” (“Sharp Eyes” 54). When the human attention turns towards other-than-human individuals, the mind also takes on an objective turn (“The Art of Seeing Things” 11). Rather than the subjective perception in the consideration of the vegetal life, human perspective stands on the objective grounds.

This also entails an outward approach of human mind which enables a non-human-centered system of thought.

While Burroughs' predecessors, such as Thoreau and Emerson, who became influential in shaping Burroughs' writing, pursued a more abstract and philosophical approach in their interpretation of natural life, Burroughs valued being down to earth in his interpretation. He kept his examination of natural life more on a simple level. Whereas Burroughs treasured the natural element as the subject of his observation, the Western perceptions have positioned nature as "a means, a lens through which the viewer may catch a ... glimpse of the self," therefore, "It becomes, for all intents and purposes" (Black 64). His simplistic approach to nature does not mean that he turns his back to the admiration of nature and the relationships that it enlivens. Finding out the elements close at hand without looking farther would still help him make out a knowledge of nature. As he denotes in his journals brought together by Clara Barrus, "The poet's pursuit of nature is the only true one" (Barrus, *The Heart* 48). This part of his writing signifies the appearance of his unique perception of nature since he is far away from stating only simple natural facts that are collected in the manner of a scientific examination. His idiosyncratic point of view is established through his interpretation of nature (Black 65). As he states in "A Sharp Lookout," "The gold of nature does not look like gold at first glance. It must be smelted and refined in the mind of the observer" (*A Year* 218). Thus, interpretation plays an important part in the sense that it brings out the "treasures" that are hidden in nature (Burroughs, *Signs and Seasons* 257). The details that are backgrounded are of great value in the mind of an observer. Through the seer's mental process and interpretation, it is possible to uncover the hidden value in nature. Another metaphor that Burroughs creates to underpin this facet is that "The diamond looks like a pebble until it is cut" ("A Sharp Lookout," *A Year* 218). What the observer accomplishes through a scrutinized look towards nature is that they unveil the hidden gem of nature which is the true value that it possesses. The things that may seem trivial or insignificant on outer looks turn out to be the essentially valuable beings. This is due to the fact that what the being offers or entails is not necessarily what it expresses on the outer surface. The underlying facts are more complex and entangled. Therefore, the truth behind can be attained through understanding and interpreting (219).

Burroughs' idea of observation goes through the observer's time that is spent in nature. Burroughs underscores the importance of being physically present in nature. To provide an insight to his unique perception of nature and plants, his essay "A Sharp Lookout" is one of the key works that have been utilized and examined in this study. This essay was published in both of the collections that this thesis will center on, which are *A Year in the Fields* (1875) and *Sign and Seasons* (1886). This essay is the last one to be included in the former collection of essays, while it is placed as the first essay in the latter. This intentional positioning might suggest the importance of this unique notion. Repetition of this essay, as situated in the last part of *A Year in the Fields* and the first part of *Sign and Seasons* may bring forth that a truthful and correct observation is possible only through a sharp perception as the title suggests. Putting it on the last section might suggest that all the information and insights of natural life, that are given in the collection, are gained through this unique perception. Placing it as the first might propose that human attitude towards nature and understanding of it is possible if it is commenced through this approach.

In both arrangements, the prominence of this approach is ascertained. Burroughs believes that, as stated in "A Sharp Lookout," being in nature and spending quite a lot of time is important for the observer with a sharp lookout. In a similar way, Burroughs' "Sharp Eyes" also supports the importance of time and a steady outlook. He points out to "the habit of observation," which requires "clear and decisive gazing; not by a first casual glance, but by a steady deliberate aim of the eye" through which "rare and characteristic things [are] discovered" (55). Knowledge about nature and plants come to the one who is present in nature. This can be understood from the lines, "Nature comes home to one most when he is at home" ("A Sharp Lookout," *A Year* 181). Removing the boundaries and hierarchies between the figures in nature, Burroughs sees nature as a home for all living beings in nature. All the processes in nature are already pursuing whether or not they are taken into account by the seer. Only by being present within the ongoing natural systems, the seer can obtain a sense of nature. Burroughs sees these ones, who are favoring and present in nature, as the lovers of it. For him, these individuals have "this advantage over people who ... stay at home and see the procession pass" (*A Year* 179). The ones who are at home are mentioned as catching the sights of natural processes. In a comparison of the two kinds of people, it can be inferred that the ones who look at nature

sees it from non-metaphysical, ontological and hermeneutical perspectives. On the other hand, the other ones lose the meaning of it in a way that they connect the natural facts to the notions which are better suited to their metaphysical and humanistic understandings of the environment. Such can be understood from the passages of similes, “The great globe swings around to him like a revolving showcase; the change of the seasons is like the passage of strange and new countries” (179). Burroughs underscores that nature is waiting to be understood. It gives a chance to the seers to look and understand while the processes “pass one’s door and linger long in the passing” (179). He also mentions the mysterious side of nature and the plant life. In a similar manner, he postulates that the mystery does not prevail in the understanding of natural life. He accepts the obscure nature of plant life but he provides a key in disclosing the encryption of the plant life which is his “sharp lookout.” If one looks closely to nature close at hand, it would give a lot about the natural facts regarding the natural life, especially plants (180).

Once such a lookout is achieved by the observer, then the observer, in time, becomes a part of the surrounding environment. Being alert to the natural occurrences along with watchfulness for plant bodies and acknowledging of their distinctions create a bond between the observer and their landscape. As Burroughs asserts, “One’s own landscape comes in time to be a sort of outlying part of himself” (“A Sharp Lookout,” *A Year* 182). In as much as human beings are a part of the environment, keeping a sharp lookout towards nature solidifies this precept through linking humankind to the natural world. Burroughs highlights this sturdy connection between the two by stating “How has the farmer planted himself in his fields” (182). It can be said that this connection begins with an ocular link and a certain amount of time spent in nature, and then, it transforms into a physical act in nature. Not only the farmer plants a crop in the field, but also a part of him becomes planted in it. In an example from his life, Burroughs adds that when he was a teenager, “as a farm boy, in haymaking, and in driving the cows to and from the pasture, I planted myself there” (*Under the Maples* 69-70). Therefore, it can be said that a lookout not only provides a knowledge of natural life, but also improves human connection to their surrounding environment.

One of the most important aspects of Burroughs’ observation, which can be considered as the key point, is the balance between the facts and their interpretation. His observations

are reflected on paper in the form of a prose but they are truthful aspects of nature that he catches. He explains his approach as follows, “One goes to Nature only for hints and half-truths. Her facts are crude until you have absorbed them and translated them ... It is not so much what we see as what the seen thing suggests” (“A Sharp Lookout,” *A Year* 218-9). For him, bare facts of nature are only the half truth of what is seen. They are straightforward and unpolished until they are translated by the seer. Through the seer, the facts that are standing on their own, eventually find a meaning. In this sense, the bare truths are found and set in place for the interpreter. On this ground, the observer or the poet begins to understand and interpret (Black 66). Facts are obviously interspersed in nature whether or not they are truly acknowledged by humans. While, the truths are out there to be seen by everyone, “to one it means much, to another little” (“A Sharp Lookout,” *A Year* 219). Nonetheless, they do not cease to exist, but they are not seen in the same way for everyone. As Burroughs states, these already existing facts are grasped by the observer and are given a whole new meaning. They have been half-truths until they are absorbed and translated by the mind of that person. The newly found meanings are not to be utilized or transformed into tangible qualities, as they did by the Western set of perception through instrumentalization. Rather, they bring out a new quality that is specifically related to nature and the plant (219).

Therefore, truth can be said to be another key point that shapes Burroughs’ perception. For him, a careful observation is to reflect only the truth. This notion, also portrays Burroughs’ stiff stance against untruthful accounts created by the Western minds. His essay “A Sharp Lookout,” especially rebukes some of the important names of Western thinking. In his criticism, he includes Virgil and Pliny, some of whose works fail in accounting for the truth. According to Burroughs, the reason why untruthful observations are added to the works of these prominent writers of the past could be the success that these texts bring to the writers. Other than that, their observation is not long and steady, therefore they mistakenly believe that natural processes are of “spontaneous generation” (“A Sharp Lookout,” *A Year* 201). Should they have been sharp observers, as Burroughs suggests, they would not portray false information. Western minds, as Burroughs calls them “the ancients” were reflecting “half fact and half fable” since their observations were not accurate and stable (202). This wrongful outlook towards nature causes “the whole truth” to be missing due to the lack of “careful observation” (203). The key point,

form Burroughs' perspective, can be to "not only see sharply, but read a right" ("Sharp Eyes 38). Through these lines, he underscores the importance of being truthful in the observation of nature which can be possible through reading the signs of nature properly.

Burroughs' perception towards other-than-humans, explained in "A Sharp Lookout," calls for a steady look to nature. Through close observation and being physically close to nature, the observer is able to perform a successful surveillance. It requires silence and time to look closely to nature to understand, along with sharp senses and an immensely focused mind. Otherwise, it would miss the observer's eyes. Therefore, "looking intently" is of essence, since the actors and actions in nature are possibly small and slow in pace ("A Sharp Lookout," *A Year* 181). In addition, in vegetal life, "the actors are on and off the stage before we fairly know it" (Burroughs, *Under the Maples* 40). In such an attitude, it would be possible to take notice of previously unseen details in nature. Burroughs, in "Sharp Eyes," also quotes from a poet, "Look intently enough at anything ... and you will see something that would otherwise escape you" (59). He asserts that details in nature are hiding only to be seen by the ones who have a sharp sight. The natural world is full of signals and hints that are waiting to be discovered. The signs in nature are out there in the open for the close observer to notice with the eyes that are open. Such clues enable the observer to comprehend the natural life and history ("The Art of Seeing Things" 8). Being a close observer, in Burroughs' terms, also entails being sensitive and caring during the observation. Therefore, the observer refrains from insensitive and reckless handling of the natural life. The observer is not "a minute, cold-blooded specialist, 'a fingering slave, / One who would peep and botanize / Upon his mother's grave,'" (qtd. in 7). But rather, it is a person who reaches out to the plant life gently and carefully which is a virtuous approach. It is possible through the respect paid for its existence and characteristics. Alertness in nature and having open senses equals to being "keenly alive" in nature (9). Being alive parallels with being attentive to the surrounding environment.

Burroughs defines a "good observer of nature" as the one who "holds his eye long and firmly to the point, as one does when looking at a puzzle picture, and will not be baffled," and through this endeavor, "the observer finally gets the fact, not because he has patience, but because his eye is sharp and his interference swift" ("A Sharp Lookout," *A Year* 195).

According to Burroughs, knowledge about plant life comes as “the result of close, patient, quick-witted observation” which is a challenging task to achieve (207). Knowledge and observation are interrelated in the sense that “It is a great help to the eye to what it is looking for” as Burroughs proposes in *Field and Study* (104). With a sharp eye and quick wit implied by the “delicacy and quickness of perception,” the observer can catch a glimpse of nature (“A Sharp Lookout,” *A Year* 217). What Burroughs highlights by setting aside “patience” as the only source of observation is because reckless time spent in nature, in the same way, would not reveal the truths. Thus, it can be understood that a great amount of time is spent in nature to truly see it; however, the important distinction is drawn through the fact that the eye and the senses of the observer are alert and responsive at all times.

It requires a strong and steady observation which lasts through a long period of time. The key to reach this knowledge is through “look[ing] intently and hold[ing] your eye firmly to the spot, to see more than do the rank and file of mankind,” along with a gaze that takes years in order to attain the facts of nature (“Sharp Eyes” 55; “A Sharp Lookout,” *A Year* 199). Through the power of having “sharp eyes” and a “sharp lookout” singularities, unique characteristics and hidden features are disclosed. Such a sight, not only points out to the specifics and variances, it also “seizes upon and preserves the individuality of the thing” (“Sharp Eyes” 55). Therefore, from these lines, it can be inferred that having sharp eyes not only lets the eye spot the details, but it also protects the singularities of individual entities in nature.

Once the plant or another genus is planted in the mind and heart of the observer, it becomes possible to see and spot them on occasions when none could primarily be seen. Burroughs suggests that a species becomes visible when the observer prioritizes that species in the mind. To see sharply, “The eye must have purpose and aim” (“Sharp Eyes” 54). Once the plant is thought of, it is possible to see it occasionally because senses are sharpened to catch it. Most times, the elements are clearly out there; however, they are only seen superficially, without regarding or paying attention to them (“The Art of Seeing Things” 23). Burroughs exemplifies this situation from a time back in his memory. He recalls the time when he spent some time in the house of a renowned editor who complained about not having seen birds around her house. When Burroughs named

various types of birds that he had seen during their chat on the porch, she could not believe that these birds existed. To her request to be able to see and hear those birds, Burroughs says ““you only *want to want* to see and hear them,”” underlying the point that “You must have the bird in your heart before you can find it in the bush” (“The Art of Seeing Things” 23). The same passage is repeated in his “Sharp Eyes” published in *Locusts and Wild Honey*. Similarly, he notes “No one ever yet found the walking fern who did not have the walking fern in his mind” (“Sharp Eyes” 54). It can be inferred from the passages above that the key to spot hidden and invisible secrets of nature is through having an open mind and heart. Once the eye is sharpened through the help of the mind and the heart, the beings hiding under the veil become visible to the observant eye. The keen observant eye accomplishes to see aright the obvious in nature, in addition to catching hidden and silent details that have not been precogitated. Burroughs adds emphasis on the same subject in *Under the Maples*, as well. He repeats the quote which signifies the importance of sight which is possible through having an ““eye practiced like a blind man’s touch,”” as well as having the species in mind beforehand (81, 133; “The Art of Seeing Things” 6).

To conclude, in order to lay a base for a plant-centric perspective, it is crucial to form the ground by bringing together the notions that enter the discussions about the lives of plants. Western perspectives that circle around plant life are mostly anthropocentric. They perceive plants from the nominal categories that plants have been pushed into. Such notions stem from the belief that plants are lifeless and motionless. Thus, they do not carry any deeper value unless they serve a purpose that is favorable and instrumental for the uses of humans and animals. In contrast, Michael Marder and John Burroughs’ approaches to plant life bring out the qualities that have been mostly neglected by Western minds. They prioritize the basic norms, such as being alive and mobile, which are also suitable for plant existentiality. In doing so, it is pivotal to embrace the obscure nature of plants even though their existence mostly goes unnoticed by the prevalent notion of plant-blindness. In order to explore such qualities of vegetal life, forming a perspective towards plants, in which the human is de-centered, holds great importance. For this purpose, Michael Marder’s concept of encountering and John Burroughs’ insights on seeing and observing are appropriate since they present a point of view that is specifically centered on plant life.

CHAPTER 2

VEGETAL EXISTENTIALITY: MODES OF VEGETAL BEING IN JOHN BURROUGHS

“The figure of the plant ... [furnishes] the prototype
of a post-metaphysical being. Plants are the weeds of metaphysics:
devalued, unwanted in its carefully cultivated garden, yet growing in-between
the classical categories of the thing, the animals, and the human”

-Michael Marder,
“Vegetal Anti-Metaphysics: Learning from Plants”

Metaphysical thoughts of vegetal beings disregarded plants within the scope of core values attributed to human beings. However, post-metaphysical grounds “incorporate the core existential attributes [to vegetal beings] philosophers have tended to reserve for human beings alone” (Marder, *Plant-Thinking* 11). Elaborating on existential fields, “vegetal existentiality” is a vital point to be mentioned when considering various modes of vegetal beings. To do so, Marder suggests what he terms as “*ontophytology*” to grasp the ontological existence of the plant (94). To highlight the specificity of this approach, he proposes that “a philosophy touched by the existence of plants will become livelier and more robust” (94). Within this concept Marder questions “the modes of being-in-the-world appropriate to plants” (11-12). In order to provide the variety of existence for plants, it is crucial to develop a “mode of thinking *proper to plants*,” as Marder’s concept of plant-thinking requires (10). Thus, as the title of this chapter suggests, this section looks into the modes of being which are appropriate for the considerations of vegetal life. Existence of vegetal beings entails new grounds on the existential bases. Western philosophy overlooks certain values of vegetal beings, thus pushing the plant to the margins. This is, as John Burroughs suggests, due to the fact that “interest in nature is not special but general,” thus lacking a deeper look at vegetal life (*A Year* 52). However, plant life is granted these core values which are “autonomy, individualization, self-identity, originality, and essentiality” in contemporary philosophy (Marder, *Plant-Thinking* 55).

They define certain modes of beings that are attributed to vegetal life. Therefore, it is important to discuss these various modes of being in regards to plants. On this base, this chapter will look into these distinctive modes, as similarly discussed in Burroughs' works. For this purpose, the second chapter of this study focuses primarily on vegetal vitality, which brings to the fore certain capabilities that plants have. The respective title follows as looking into the non-conscious intentionality of plants, which is bound to their heteronomy and externality. Finally, temporality of plants is discussed in the last part which defines the time of plants and their position as in variable relations to their time.

2.1. VEGETAL VITALITY

Before delving into the existential qualities of plants, it is imperative to look into the definitions of vegetal vitality. The first chapter of this study looks into the tenets that cover the vitality of vegetation by the Western perspectives. Behind the veils, such as lack of motion or sense, the vitality of plants is concealed. It is, as Burroughs suggests, Nature's "arts of concealment" (*Signs and Seasons* 77). It hides "in holes, it perches on trees, it runs to cover under the stones" (Burroughs, *Field and Study* 30). As he suggests, vitality hides in plain sight, because it "soars ... it calls by day" (30). Regardless of Western ideals that hold vegetal vitality invisible and down, vegetation's liveliness outbursts. Vegetal vitality is dispersed in various modes of vegetal being (Marder, "Plant Intentionality" 1370). Rather than a unified and homogenized perception attributed to plant being in the earlier philosophies, vegetal vitality is traced within various layers of the plant that are exuberant and intermingled. In contrast to Hegel's perception of plant life which asserts that this form of life "begins where the vital principle gathers itself into a point" (*Hegel's Philosophy* 303), it is crucial to see this vitality as "an atomic fission of the unitary principle into an infinite number of points," as Marder borrows from Nietzsche's reflections on the topic (*Plant-Thinking* 43). Vitality, as a unified principle, breaks into a number of facets, which opens up new modes of identities. Such an assessment on the vitality of the plant also defines Marder's thinking of plants since it "starts with the explosion of identity" (43). Plant life is "unbound from the logic of the totality;" thus this removal positions plants as "constitut[ing] a provisional unity of multiplicities" (84). It does not fit into a homogenized whole, or it cannot be standardized. This is because only mechanical and single faceted things can be systematized; therefore,

it is not possible to “standardize vital things” (Burroughs, *Field and Study* 321). Rather, as Burroughs suggests, vitality of vegetation is “a fountain of living matter rising up out of the earth and splitting up and spreading out at its top in a spray of leaves and flowers” (*Under the Maples* 7).

Vegetation is composed of beings which are idiosyncratic entities, therefore, in essence, they are a group of “heterogenous beings” (Marder, *Plant-Thinking* 54). Each one of them is distinctively apart from one another. By their unique characteristics, they resist the “metaphysical values of presence and identity” which create a “totality of being” (54). The thought of a “totality” in beings, which is a construction of metaphysics, results in disregarding of singularities in plant life. Through eradicating distinctions amongst various genera, metaphysics of plant life reduces the “diversity of vegetation to the conceptual unity ‘plant’” (54). However, as Burroughs also suggests, vegetation consists of members which are “more complex, more heterogeneous” (*Signs and Seasons* 39-40). In preserving the heterogeneity of vegetal being, vegetal democracy acts in the ways that are appropriate to the plant’s ontological being. Democracy is eligible for every living being, ranging from humans to the plant kind. Vegetal democracy protects and embraces the differences in plant life. Acting in accordance with plant life, democracy for vegetation cherishes the plant’s “dispersed life” and “inherent divisibility” (Marder, *Plant-Thinking* 51). In doing so, this form of democracy gathers all the living beings together, however, this gathering is far from the objectives of totalizing the members through disregarding their differences and singularities. Through their differentiated modes of being, vegetation participates in the process of life.

Into the discussion of vitality, death is another point to be considered. Life and death stand out as a dichotomy in which the two are clearly cut from one another. However, vegetal democracy does not remove death from life. Rather, it situates “‘participation in life’ in an intimate relation to mortality” (Marder, *Plant-Thinking* 52). Rather than the metaphysical and phenomenal notions which carry the meaning of plant life further away from realistic and physical potentialities, vegetal democracy grants vegetal life its spot in the field of mortality. While vegetation entails a mode of proliferation and exuberance which feed its vitality, it is also situated near the brink of death on account of its passive state, as well as the “vegetative state” that the original word entails as if being in a state

of unconsciousness or coma (53). However, as Burroughs suggests death or decay in the plant's life is merely a "disorganizing activity," which is encrypted in the "vital principle" of plants (*Under the Maples* 8-9). Marder, also, suggests that "*The substantive emergence and dissolution* of a plant concentrates the discontinuous continuity of time in a seed" ("The Weirdness of Being in Time" 341). This means that the beginning and the end of life is in a continuum which is unpredictable and not mechanical. As John Burroughs puts it, "When does the day begin to dawn, or the night to end?" (*Field and Study* 189). Likewise, he also discusses the close nature of death and life situated within "the vital process" (188). He suggests that "Life and death go hand in hand. Death has its living side. What we call decay and corruption is the work of living organisms, not less than what we call growth and health" (187). Throughout the process of life, both concepts are interconnected and aligned. An intermingling of the two forces makes life possible. Therefore, the strict line between life and death is blurred in the discussions considering vegetal life. Natural forces have a tendency of "pulling-down" as part of living, as Burroughs suggests in *Field and Study* (187). This downward movement is a part of natural and vegetal life, as much as the affinity of "building-up," which is the flourishing and out-bursting of life (187). Thus, standing in balance, both up and down movements, which are life and death, are existent in plant life. A parallel impression is made by Muir in his accounts that record the aftermath of a harsh storm in "A Wind-Storm in the Forests." While the storm destroys vegetation and uproots years-old trees, he perceives the land as having a boisterous scenery of liveliness. He states that "As I gazed on the impressive scene, all the so-called ruin of the storm was forgotten, and never before did these noble woods appear so fresh, so joyous, so immortal" (473). The ruins that the storm leaves behind is nothing but a mere proof of the out-bursting state of liveliness that the forest has.

Brisseau-Mirbel, who was a nineteenth-century French botanist, suggests that the plant is "a collective being" which transcends through the boundaries of metaphysicality and conceptuality (qtd. in Marder, *Plant-Thinking* 84). The plant's adaptation of outer sources, as well as its heteronomy which indicates its dependency on the other are a part of vegetal life with growth and decay. Similarly, John Burroughs associates vitality with fluidity. It is contingent, ever changing, and multi-faceted. His remarks on this note follow as,

We think of this mystery we call life under the image of a fluid; it may take any or all forms; it is a stream which is ever and never the same; it begins and ends every moment; it adapts itself to all conditions, in the air, in the water, in the soil, on the rocks, in the surf, in the marsh, in the cold, in the heat – from within form, form nourishing form and destroying form, life building up, life pulling down, life changing the face of the earth. (*Field and Study* 329)

Burroughs' perceptions on the life principle, as shown above, applies to vegetal vitality, as well. The fluidity of being that is susceptible to change and metamorphosis is a part of plants' vitality. To highlight his point, Burroughs also quotes from Walt Whitman suggesting "the slumbering and liquid trees," which refers to the same quality (qtd. in *Under the Maples* 9). Burroughs explains that "trees are wrapped in a kind of slumber in winter, and they are reservoirs of living currents in summer ... They awaken from their slumber in the spring, the scales fall from their buds, the fountains within them are unsealed, and they again become streams of living energy, breaking into leaf and bloom and fruit under the magic of the sun's rays" (10). These lines are suggestive of the plant's non-static identity. It is ever changing affected by the outer forces such as the seasons, as Burroughs exemplifies, which is indicative of the "fluid and adaptive" nature of vegetal life (10). Two states, as shown in the above lines, are present in the tree in a year. One is being in slumber, and the other is being in motion. Similarly, John Muir also provides a parallel example to plants, especially conifer trees, which have "varied waterlike flow as manifested by the movements of the trees" ("A Wind-Storm" 467). Clearly, he perceives the plant as having qualities of liquidity and overflowing.

Vitality is also associated with the being's growth patterns. It can be traced in the plant's growth. "Growing beings" change their forms and become something other than what they originally were (Marder, *Plant-Thinking* 52). Not only humans and animals are growing beings, but plants are also among those beings which grow and develop. Each kind expresses their growth in different ways. However, in all cases, their growth proves their participation in life. Life itself also harbors various layers and meanings leading the way for differences and singularities. As Marder suggests, "In raising the question of the living, we must acknowledge the infinite differentiations, the 'striatedness' of the field of vitality" (*Plant-Thinking* 52). These lines are suggestive of the multifaceted quality of life and vitality, especially for the plants. Marder also defines this as the plant having "dispersed intentionality," which harbors unevenness and complexity in the plant's

growth patterns (“Plant Intentionality” 1370). Burroughs sees that life in plants carry on dispersed instances, as can be seen through the processes in which “the scales fall from their buds, the fountains within them are unsealed, and they again become streams of living energy, breaking into leaf and bloom and fruit under the magic of the sun’s rays” (*Under the Maples* 10). Thus, the plant carries a burst of energy within itself along with each part of the plant being possessive of life.

It can additionally be asserted that meanings of vegetal life are “paradoxical and double,” rather than being overt and palpable (Marder, *Plant-Thinking* 52). Life is traced and evinced at multiple parts of vegetation. Each part a plant has is capable of carrying vitality within themselves. John Burroughs also realizes this multifaceted vitality of the plant. As he suggests in *Field and Study*, “organs of the living body certainly have no attraction for one another” (261). Each part follows its own pattern, sharing life within. This is what Burroughs calls as the “vital principle” of plants (*Under the Maples* 8). In this “vital principle,” each part of the plant follows through individual paths of growth and vitality. The existence of “the oak in the acorn” and the “flower in the bud” are examples to this facet of vegetal vitality (188). Even in the littlest parts of vegetation lies the potentiality of life and efflorescence. Vitality, therefore, marks and “puts a particular stamp upon” the things that carry life within themselves (188). This also results in the emergence of plants that appear from the least expected sources. For instance, as Burroughs suggests “wood-ashes will bring in the white clover” (*A Year* 137). Even though wood-ashes may not seem as a place which facilitates the germination of the clover, they turn out to be the originating source where the white clover germinates. In addition, Burroughs’ inherent curiosity leads him to wonder how the pollens are scattered even when there is no blooming source around the vicinity in the beginning of spring. He finds out that even the sawdust of a tree consists of pollen within. Whether or not the plant being loses its integrity or its essence of vivacity, it still harbors life in its residues which will facilitate liveliness further in other possibilities (*A Year* 44). These remnants of pollen that are found in the sawdust are hunted down by bees. These pollen bearing sawdust is mainly from the hickory or the maple trees. Bees help disperse them around and bring back the rest to the hive to turn into honey, eventually. A similar point is also captured in the sap of the maples trees that carry the “distilled essence of the tree” (*Signs and Seasons* 243). The sap, released from the tree, carries the fragments of the tree’s vitality and vivacity.

In *Under the Maples*, Burroughs traces the vital activities that are performed by the plant. As he puts forward,

The vital activity of the tree goes on at three points – in the leaves, in the rootlets, and in the cambium layer. The activity of the leaf and rootlet furnishes the starchy deposit which forms this generative layer – the milky, mucilaginous girdle of matter between the outer bark and the wood through which the tree grows and increases in size. Generation and regeneration take place through this layer. I have called it the girdle of perpetual youth. It never grows old. It is annually renewed. (5)

The first and foremost region which constitutes the vitality of the tree, as Burroughs states above, is the cambium layer. This milky and sticky substance is responsible for holding and maintaining vital activities that promote vegetal growth. Vegetation's vitality is present in different layers of the plant simultaneously. It signals the generosity and exuberance of vegetal life by consisting life and pursuing liveliness at various parts of its body. Such can be traced in grafting activities of the plant, as John Burroughs mentions. Grafting, as simply described by Burroughs, is the "planting of buds," in which "the seed is a complete, independent bud" that holds the original nutrients belonging to the young plant (*A Year* 58). When this bud is attached to another plant's branch, it performs as a seed. Rather than, absorbing the nutrition from the soil, this bud extracts them from the branch that it is attached to, until it becomes one with the original plant (59). It proves the existence of liveliness in various parts of the plant. For the plant to pursue living, it does not necessarily have to be connected to the root originally by arousing from the seeds. Since life can be found separately and simultaneously at different parts of the plant, it can be pursued likewise. This quality of the plant signals the multi-facetedness of vegetal vitality. Similarly, the presence of the cambium layer is representative of a tree's liveliness. Burroughs exemplifies it in an instance of an apple tree which looks almost dead outside, but alive on the inside. He states that "the tree may be reduced to a mere shell and many of its branches may die and fall, but the few apples which it still bears attest the fact that its cambium layer, at least over a part of its surface, is still youthful and doing its work" (*Under the Maples* 5-6). Thus, multi-faceted vitality, or the dispersed vitality is predominant in the plant's existence.

The vitality of vegetation is dispersed, as well as in being exuberant and abundant. The will to survive and pursue living is also exemplified in Burroughs' reference to "ten thousand and one Canada thistles," in which, "The farmer goes resolutely to work and

destroys ten thousand and thinks the work is finished, but he has done nothing till he has destroyed the ten thousand and one. This one will keep up the stock and again cover his fields with thistles” (*A Year* 136-7). A similar tendency of growth can also be observed in some vegetables such as the onion which proliferates both from its top and its bottom. The former is through the seeds, while the latter is through the fresh sprouts. Likewise, “Cut off the head of the wild carrot, and in a week or two there are five heads in room of this one; cut off these, and by fall there are ten looking defiance at you from the same root” (138). As he infers, “in the plant world Nature seems to allow herself more freedom, or does not work on so economical a plan” (*Under the Maples* 147). It can be understood that the vegetal world does not slow down in the process of multiplication. As Burroughs suggests vegetation “lives and grows, and does not pause to cogitate” (*Field and Study* 135). The plant’s efflorescence and outgrow is also observable in trees. As Burroughs exemplifies, the pine represents permanence in its growth and length. Its ceaseless growth indicates that “The pine has but one idea, and that is to mount heavenward by regular steps” (*Signs and Seasons* 40). The tendency for outreaching growth can be observed in the externality of the plant which directs itself towards an insatiable advancement. A similar aspect is observable in grass, as well. As Burroughs suggests it is “so common, so abundant, so various” (*Under the Maples* 74). Their multiplication signifies the keystone of plant life which is, as Marder suggests, “an increase of life” (*Plant-Thinking* 24). As Burroughs includes, “there are no weeds so persistent and lasting and universal as grass” (*A Year* 157). This increase and exuberance of life, as is seen in grass, resists the norms of plant-blindness. As Burroughs also points out, grass, as a common weed, is “so common that we cease to remark it” (*Under the Maples* 74). Nonetheless, this backgrounding does not diminish the vitality of the plant as expressed by its outgrowth and ceaseless production. It is also important to note the fact that common grass is only abundant in some suitable spaces on the Earth. In regions which are lacking suitable climate conditions to harbor vegetal growth, it is probable to see “no meadows and no pastures;” since, “Harshness, rawness, aridity, are the prevailing notes” in such areas (74-5). Therefore, it can be said that what is perceived as common in certain areas may not be applicable for the majority of spaces. The common and prevailing species of a region may not be in existence in other regions. Thus, the over generalizing concept of “commonness” may not be suitable in the considerations of vegetal expression.

Additionally, the vitality of plants is also traced in their minimal parts, such as the rootlets and the seeds. Burroughs looks into the rootlets and their minimal mechanism of growing and adapting the resources in *Under the Maples*. He suggests that the connection made by the roots of the tree to the soil is performed through certain methods that “only the microscope can fully reveal them to us” (4). The processes of growth pursue in minimal details in vegetal life when compared to animal life where bigger mechanism are at play. As Burroughs puts it “vegetable, through the agency of the solvent power of water, absorbs its nourishment molecule by molecule” (4). Therefore, it can be seen that growth and processes of nourishment happen slowly in fraction on molecular level. Contrary to the general belief about the thick roots which represent a tree, he introduces that “A tree does not live by its big roots – these are mainly for strength and to hold it to the ground ... The tree’s life is in the fine hairline rootlets that spring from the roots” (4-5). Highlighting the tiny rootlets, he points out to the pivotal role of these hair-like parts of the tree which are crucial in the sustainability of vegetal vitality. About the minimal efforts of the seeds, Burroughs refers to the burdock which is a strong-willed plant in *Field and Study*. He suggests that “I know of no plant so difficult to prevent seeding. Cut it down in July, and in August it has new shoots loaded with burrs; cut these off, and in late September, or early October, it will evolve burrs directly from the stub of the old stalk” (35). Regardless of the cycles that the plant follows, it would still go on producing new burrs that enables seeding. Even if July or September signal the summer when the highest production level is reached, the plant would still produce more. It even produces further into September or October when its vitality is supposedly fade away. Rather, it flourishes from the old stalk with exuberance and power (35).

2.1.1. Vegetal Capabilities

Capacities and capabilities define a being's tendency towards the potentials that can be accomplished. Beings tend towards their capabilities via applying their whole being onto the process. Edmund Husserl’s ideas on holding capabilities are discussed in Marder’s *Plant-Thinking*. For Husserl, being capable of a quality goes through possessing “intentionality, which is a directedness-toward something, be it perceived, the desired, the willed” which is adapted as the appropriate amount of sunlight, water and minerals for the plant (Marder, *Plant-Thinking* 37). Plants are capable of various qualities;

however, these ones are not to be considered within anthropomorphic terms. They are not to be explained through, as Burroughs suggests, “our own consciousness” (*A Year* 195). Their capabilities are performed within “their own fashion, of accessing, influencing, and being influenced by a world ... that corresponds to the vegetal modes of dwelling on and in the earth” (Marder, *Plant-Thinking* 8). The plant world is “a world of activities and potencies so unlike the world of tangible bodies and mechanical forces in which we habitually live” (Burroughs, *Field and Study* 184). Thus, this world is, specifically, the plant world which is distinctly farther away from the human world. Considering the above mentioned idea of Husserl, plants’ capacities are shaped through their unique tendencies towards the other which highlight the plant’s own intentionality. This particular consideration of the plant as “capable of something” evidently “endows its existence with qualities that are not entirely passive” (Marder, *Plant-Thinking* 37). These capacities and capabilities of plants show their “versatility” and being more resourceful (Burroughs, *Signs and Seasons* 40). These capabilities prove the plant’s “resorting to many ingenious devices to scatter its seed and to secure cross-fertilization,” which demonstrates their independence of life experience in which human is decentered (Burroughs, “Animal and Plant Intelligence,” *Leaf and Tendril* 171).

While Western thinking perceives plant life as passive or non-existent, the idea of plants’ having certain capacities and capabilities proves the opposite. Due to the tendency toward the desired target, which is also appropriate to the life of vegetation, being inactive does not thoroughly apply to plant life. Plants uniquely assimilate their others for the purpose of living (Marder, *Plant-Thinking* 39). That is to say that plants assimilate elements to be used in terms of nutritive and growth purposes. By doing so, they also go through a metamorphosis since the intake of nutrition appears as growth. Their capabilities and capacities, as well as “Any device that a plant ... has for getting on in the world” are a part of plantal existence which requires a scrutinized study (Burroughs, *Field and Study* 32; “Animal and Plant Intelligence,” *Leaf and Tendril* 171). In as much as humankind is capable of various qualities that define their actions and purposes, similarly, plant kind also has its own methods. As John Burroughs states, plant kind is among “the humbler orders,” which has its “own devices and makeshifts” (*Field and Study* 33). These “makeshifts,” which are the plants’ “ingenious devices,” define their capabilities and capacities which are the underlying motives behind plantal actions (33, 122). These

devices and methods are applied even by the smallest species, such as the “simple grass,” which undertones the plant’s “effectiveness” in its life (Burroughs, *Signs and Seasons* 234). As Burroughs suggests, grass is “so persistent and lasting,” which highlights their mastering of methods for their survival (*A Year* 157). In that sense, plants, ranging from the simple to complex, are “full of expedients,” which gather around an “engrossing purpose,” which is “to multiply” (138).

The devices that the plant applies to its life are the “propagation, preservation, dissemination, adaptation” (Burroughs, “Animal and Plant Intelligence,” *Leaf and Tendril* 171). These are amongst the motives that define the capacities and capabilities of vegetation. A majority of plant forms have direct access to the original sources, as Burroughs suggests. They do not rely on an external adapter to receive the sources. What facilitates this ability is the existence of “chlorophyll” that is indispensable for the life of plants since “it makes the solar power available for life. It is in direct and original relation to the sun” (Burroughs, *Under the Maples* 190). The vital sources available for plants, such as the “better food, more sunshine, and more aids in getting themselves disseminated” become factors that foster vegetal capacities and capabilities (Burroughs, *A Year* 136). The access to original sources and their adaptation for the needs of the plant is what differentiates the plant world from the animal or the human world. The latter forms, as Burroughs suggests “go to the plant” for the pursuit of their life (*Under the Maples* 191). Plants, as Burroughs explains, are capable of “vital functions” such as “respiration, circulation, absorption, assimilation, reproduction,” which are common to all beings (*Under the Maples* 9). They are capable of absorbing “earth materials through the minute hairs on its rootlets, called fibrillae” (9). Not only are they capable of growth and scattering their seeds, but also in protecting themselves against possible dangers. This protection, as well, comes from their skillful growth and proliferation. As Burroughs suggests, weeds are capable to “survive any war of extermination that is waged against them” (*A Year* 136). This capability is the extended outcome of their proliferation, since even one body of the plant stands as adequate to foster its lineage. Canada thistles, for instance, are capable in this manner that even though thousands of the species are exterminated, the lineage and further growth do not stall until “the ten thousand and one” is eliminated from the land (137).

Plants are unique in terms of their capacities and capabilities. While most plants rely on soil which entails their connectedness to the land, some rare plants essentially do not need soil. An example to this is the air-plants. Air-plants gain their vital sources from the air instead of the soil (Burroughs, *Field and Study* 188). As Burroughs suggests, “How curious it is that the air-plants should be able to get their mineral elements from the air as if this all but impalpable fluid were a soil full of lime and magnesia and silica, and the plant pushed invisible roots into it!” (123). Their capacity for living is not limited to the ground that they are stiffly connected to. They are capable of obtaining the source from the air by dwelling on inanimate objects, as well as dead objects, such as the previously alive tree trunks which have been lifeless for a long time. Their unique agencies enable the air-plant to “seize” or “strain” the nutritive asset from the air (123).

Plant movement is defined by Aristotle as having two qualities which are through growing and decaying, as well as assimilating nutrition (Marder, *Plant-Thinking* 37). In that sense, as Aristotle states in *De Plantis*, if life is considered to be existent in the plant by having these three qualities, then “plants are considered to live, for they evidently have in themselves a capacity and first principle by means of which they exhibit both growth and decay in opposite directions; for they do not grow up and not down, but equally in both directions, and in every direction” (*On the Soul* 413a26-30). It can be stated that plants’ growth, decay and receiving nutrients happen in all directions. There are three forms of capacities for the plant, which are the capacities of growth, decay and the intake of nutrients. However, plant capabilities are not limited to certain dependencies such as the light. They are in all directions; therefore, they are not linear. Plant life can be expressed in various instances and dimensions. As Marder suggests, the methods applied by the plant are by “biochemical signaling and in an incessant, wild proliferation, a becoming-spatial and a becoming-literal of intentionality” (*Plant-Thinking* 37). As Burroughs suggests, plants, especially weeds, “are sent from one end of the land to the other in seed grain,” thus proliferating in numerous spots at once, by vastly extending (*A Year* 136). Therefore, it can be inferred that plant life is expressive in a “multidirectional growth,” as put by Marder (*Plant-Thinking* 37). The meaning of plant life is embedded in the directions that it follows. It is encrypted in biochemical signals and perpetual multiplication – “infinite proliferation” or “exuberance of growth” - of the plant species (38). This tendency towards the other which is an intentional activity can be explained as

the plant's "non-conscious intentionality" (37). The plant's "increasing power to live and multiply" is definitive of the capacities and capabilities that it holds (Burroughs, "Animal and Plant Intelligence," *Leaf and Tendril* 171).

2.1.2. Nutritive Capacity of Plants

As it is already discussed, in terms of the Aristotelian positioning of plants, they have no ends or a goal to be reached or to finalize. Nevertheless, Aristotle seeks to find the first principle of life regarding plants. Thus, he places the capacity for adapting the nutrients as the first principle of the plant's life. The reason for a positioning as such is because the adaptation of nutrients marks "the minimal level of vitality that distinguishes living entities from mere things" (Marder, *Plant-Thinking* 38). The tendency towards nutrition leads the way for further discussions that are directed towards "nutritive desire." Into the discussion, Plato introduces the plant capacity for desire. Much to Aristotle's discontentment, Plato suggests that plants experience desire, even though they are incapable of locational changes (39). Two notions, which are nutrition and desire, are associated in the sense that a being which is "capable of receiving nourishment is subject to the feelings of hunger, craving, and satisfaction depending on whether nutrients are available at any given moment" (39). Thus, it can be said that receiving nourishment and being in search for it signal to the actuality of desire of a living being. Whilst arousing desire, the need for nutrition also entails sensations and feelings such as hunger and pleasure, which are essential in directing the desire. Hunger stems from the deficiency of the nutritive asset, while pleasure is attained through the attainment of the nutrient. However, the exuberance of plant life shows that this life may be insatiable because there is no fulfillment in the end. Plants incessantly depend on the other for growth and yearn for nourishment. Within this concept, as Marder verbalizes "the plant is the most desiring being of all, precisely because it is the one most dependent on exteriority" (39). John Burroughs also refers to plants, which ceaselessly disseminate and reproduce, as "lusty" (*Field and Study* 36). Their tendency for reaching out to further locations through scattering of their seeds and reproducing in abundance prove their lust (36). It is also assertive of their over-expression of their vitality through producing in large numbers, as well as flourishing hundreds of seeds at the same time (Marder, *Plant-Thinking* 35).

As Marder discusses, in its essence, vegetal desire has two opposite connotations. The negativity of vegetal desire stems from its dependence on privation. This negative lacking is satisfied only at times when the hunger is taken under control by reaching satiety. On the other hand, as Marder points out, this desire can be interpreted, by the Nietzschean perspective, as “an expression of the overflowing will to power, the pure positivity of growth and expansion where nothing is missing” (*Plant-Thinking* 39). Marder sees the concept of “will to power” as a development of the nineteenth century that sheds light to current views of critical plant studies (Marder, “Plant Intentionality” 1366). Burroughs also provides a parallel view by highlighting the prevalence of “power, progress, success” that are in nature and the plant world (*Field and Study* 282). The strength and positivity comes from the integration of the outer source as nourishment “by assimilating the other to itself” in its favor (Marder, *Plant-Thinking* 39). The lines above also define the vegetal capacity of nourishment by turning the other into a nutritive source. An example to this, as presented by Burroughs, is that “The sunlight ... enables it [the plant] to appropriate the carbon dioxide from the air” (*Field and Study* 301). Mere organic sources, when appropriated for the uses of the plant by itself, become nutritive sources. Therefore, it can be evinced that vegetal desire facilitates the capacity of vegetation to fulfill its nutritive faculty.

The other, which is the organic matter in the air or in the soil becomes assimilated as a source for the plant kind. The sunshine, water, and minerals are all a part of the assimilated nutritive sources for plants. Processes, such as photosynthesis, are amongst the methods for translating the organic substance into nutritive matter. The transpiration process, for instance, defines the movement of water which “enters at the rootlets under the ground and escapes at the top through the leaves,” as exemplified through the processes of oaks and elms (Burroughs, *Under the Maples* 7). The assimilation of minerals is reflected in the osseous system of a plant which is the woody surface of the plant (7). Water is the essence of life as suggested by Burroughs. However, it is not directly a nutrition for the plant. Rather, through “assimilation and elimination,” the nutrients are translated for the uses of the plant (8). Differently, as Burroughs suggests, air-plants, for instance, “trap and appropriate the iron and the potassium” as their nutritive other “by the aid of the acids in the leaf” (*Field and Study* 123). In terms of their nutritive capacities, Burroughs does not separate “an air-plant and an earth plant” from one another

because “the former has its roots in the air and draws about the same elements thence that the latter does through its roots in the earth” (124). This connection is driven from the existence of the same minerals both in the soil and the air, even if they may be in diverse molecular forms. While the liquid form of water is available in the soil, the vaporized form of water, as a counterpart, is existent in the air. Both consist of minerals and salts which are vital for plants. Therefore, as Burroughs proposes, “The atmosphere, then, seems like another and finer earth possessing nearly all the mineral and gaseous and living organisms” (124). It can be understood that towards both sides, to the air, or to the soil, the plant aims forward for the cause of gaining nourishment.

Nietzsche’s appropriation of the concept of the “will to power” for plants underscores the relation between this capacity and assimilation of the other (*Plant-Thinking* 39). They exist on the world “both by spatially spreading themselves on the surface of the planet and by ‘digesting’ mineral nutrients” (Marder, *Plant-Thinking* 41). The latter facilitates the former since by the intake of nutrients and minerals, plants can grow and extend themselves. Through the yearning for nutrition, vegetal life expresses itself in proliferation as can be evinced by the presence of dense woods and “the trees of unusual size,” such as the birch, as Burroughs states (*A Year* 102). The hemlock, maple and birch are amongst trees that make up crowded and dense woods. Their capacity for tending towards nutrition results in a full proliferation of the species with their thick crowns, which reach great heights (93). Many forms of plant life are capable of such growth such as the “gigantic ferns” that Burroughs encounters which are as high as the man (94). As Marder suggests, the desire is apparent in the lives of plants since they seem to “act on this desire in the most literal sense, by branching out in all directions: growing in height, spreading horizontally across vast expanses, burrowing their roots into the Earth’s crusts, and by imbibing everything from the water, the air, and the soil that surrounds them” (*Plant-Thinking* 40-1). Burroughs, in *Signs and Seasons*, exemplifies pine trees, as an epitome of physical growth in plants. These specimens not only grow vertically “to mount heavenward by regular steps,” but they also live to be centuries old which results in the thickness of the trunk horizontally (40, 46). He recalls that he “saw a section of a pine from Canada that was eight feet in diameter, and that had been growing ... [for] centuries. But this was only a sapling beside the redwoods of California, one of which would carry several such trees in his belt” (46). Hemlocks are also another species that Burroughs

exemplifies for the proliferation of the trees and vegetation. Similar to the pine in its attitude for upright and horizontal growth, the hemlock “attains an altitude of nearly or quite a hundred feet” (Burroughs, *Signs and Seasons* 46).

An example to the ceaseless production and “will to power” can be John Burroughs’ most commonly found species which are the weeds, which are “so full of expedients, and the one engrossing purpose with them is to multiply” (*A Year* 138). As he observes in *A Year in the Fields*, weeds, especially, “like rats and mice, increase and spread enormously in a cultivated country” (136). This is due to their assimilation of the sources such as the sun and the nutrition from the soil which are easily accessible. The presence of such sources close at hand creates a suitable environment for the weeds to spread. The power of the plant, in general, comes from limitless abundance and proliferation of the plant which is fed by the nutritive desire and yearning for the other, which eventually becomes adjusted for the needs of the plant. This over expression of plant life, especially for the case of the weeds, empowers them in “any war of extermination that is waged against them!” (*A Year* 136). That is to say that abundance protects the plant from disappearing.

2.2. NON-CONSCIOUS INTENTIONALITY OF PLANTS

The plant’s “non-conscious intentionality,” stems from its tendency and proximity towards the other. In this process “Instead of pursuing a single target, non-intentional consciousness uncontrollably splits and spills out of itself” (Marder, *Plant-Thinking* 153-4). Marder defines it as the plant’s “directedness-toward” (*Plant-Thinking* 42; “Plant Intentionality” 1367). Plants’ non-conscious intentionality reflects as the “turning and striving of a plant toward the sun,” which is perceived as the “act of intending” (Marder, *Plant-Thinking* 158). John Burroughs refers to this directedness as “the leaning” of plants (“Animal and Plant Intelligence,” *Leaf and Tendril* 172). This phenomenon can be explained as “the inherent impulse to experiment, the original push, the principle of Life,” as John Burroughs proposes in *A Year in the Fields* (195). He further discusses the same subject in *Under the Maples* by stating that “There has been the push of life, the effort to get somewhere” (93). Burroughs, also, perceives this push as being connected more to the origin, to “Life.” In accordance, he furthers that there is “an inherent tendency ... to push on and out in all directions, an inherent activity or push of life” (*Field and Study* 278). In this push, the question rises so as to the “guiding principle” that directs the

intention towards (*Under the Maples* 93). Hegel describes this tendency through the acts of sprouts which “climb up the wall as if they knew the way, in order to reach the opening where they could enjoy the light” (*Philosophy of Nature* 306). Burroughs, accordingly, resembles this relative act of tending to “a curious instance of foresight in a weed” (*A Year* 189; *Signs and Seasons* 9).

The state of living encompasses being directed and tending towards others. As Burroughs also puts it, “so many forms of life put on in fulfilling the primal command to ‘increase and multiply’” (*Field and Study* 101; *Under the Maples* 179, 203). He also touches a similar point, in *Under the Maples*, stating that “There seems to be an inherent tendency in nearly all living things to scatter, to seek new fields” following the emphasis of the reason to “increase and multiply” (203). These lines are suggestive of the plant’s intentionality for the cause of proliferating and flourishing. Therefore, growth is perceived as the “extended intentionality” of the plant, which also triggers a certain movement, which signals “dynamic extension” of plants (Marder, *Plant-Thinking* 159). Into this tendency, Nietzsche introduces a new and significant perspective. His interpretation of plant growth points to a multitude of growth patterns which removes the plant from its previously accepted generalized and one-directional being. In search for an answer for the plant’s will and tendencies, he brings forth his criticism of the perception of the plant as “a false unity which does not exist” and goes on to refer to the plant as “the fact of a millionfold growth with individual and semi-individual initiatives” which potentially become “concealed and denied if we begin by positing a crude unity ‘plant’” (*Will to Power* 374).

The plant aims towards the desired target. However, this attempt is not “unidirectional,” rather it performs on various layers in a multitude of directions (Marder, *Plant-Thinking* 42). As Burroughs suggests, plants maintain “ceaseless experiments in every possible direction” (*A Year* 195). Non-conscious intentionality is embedded within all parts of a plant; therefore, it is scattered in various directions. This intentionality or directedness towards the other is embedded in the essence of life. Burroughs states that “The inherent tendency to vary implies an inherent force or effort. Only living beings struggle; it is the characteristic of life to struggle, to push on” (*Field and Study* 279). He places such activities within the capacities of living beings. Only living beings tend to go forward and

struggle for life, which can be considered flourishing and multiplying for plants. As a result of the tending towards a target, as Marder suggests, “something becomes itself thanks to that of which it is conscious (or not conscious)” (*Plant-Thinking* 158). The existence of some species in a space where they have not been expected to flourish or in areas which have “never been seeded by man,” it is still possible to see common species such as the grass covering the whole landscape (Burroughs, *A Year* 158). In addition to the overall production and multiplication of plants, sap production, in essence, can be considered as a part of the plant’s non-conscious intentionality, in which “something becomes itself” (*Plant-Thinking* 158). Hegel states that “It is from light that plants first get their sap” (*Philosophy of Nature* 306). Burroughs puts forth the same instance of the sap produce which is facilitated by the relationship between warmth and cold, in which sap “is the fruit of the equal marriage of the sun and the frost” (*Signs and Seasons* 241). In accordance, as Burroughs observes, “There is no sap without warmth, and yet warmth, without any memory of the frost, stops the flow” of sap (*Under the Maples* 73).

The above-mentioned intentionality is a significant part of vegetal vitality and existentiality. Plant life, just as natural life in general, “is the result of this blind groping and putting forth of Nature in every direction, with failure of some of her ventures and the success of others,” as John Burroughs puts it in *A Year in the Fields* (194). Burroughs also furthers the discussion with the question that asks, “Does the wind need eyes to find the fertile spots upon which to drop its winged seeds?” (*Under the Maples* 214). This is because he believes that no eyes or physical sight is needed for success in plant life since the wind “drops them upon all spots, and each kind in due time finds its proper habitat” (214). He also comments on the blindness of life that sustains vegetal life stating that “We say she is blind, but without eyes she is all-seeing ... Nature has all time and all space and all ends” (213). This is to say that nature is not limited to the knowledge that is gained by sight, rather it has a collective consciousness in which all are known simultaneously without the need of having eyes. Similarly, plants do not have vision or the ability to see. Nevertheless, their efflorescence and will to live pursues in a limitless capacity. Within the non-conscious intentionality of the plant, “The creative, ameliorating power is blind, but it is ceaselessly active, and it finds its goal sooner or later” (Burroughs, *Field and Study* 310).

Tendencies of plant life is an active process in which “Her [Nature’s] traps, her wings, her springs, her balloons, always work” reaching out incessantly in various directions (Burroughs, *Field and Study* 33). Similarly, trees surface as having “greater diversity of shapes,” resulting from the fact that they “tend to branch endlessly” (Burroughs, *Signs and Seasons* 35). This tendency of perpetual growth results in a maze where they “divide and subdivide” without an end (35). Burroughs also suggests that “Nature’s methods are seen in the little as well as in the big ... pushing out in all directions show the all-round-the-circle efforts of Nature” (*Under the Maples* 213). The attentiveness towards the other is prevalent and in all directions. In addition, this derive follows a pattern that is repeated in the circular tendency of growth and life in lives of plants. Pointing out to variables and singularities in nature, Burroughs also states that “The wings of the maple keys, the ash, and the linden are all different, but they all work” (*Field and Study* 33). Thus, non-conscious intentionality, which is embedded within the vitality of vegetation, can be traced in the multiple directions that the plant intends towards. Burroughs gives another example of a wild grass which moves in the house as soon as he opens the front door (38). Similarly, the conveyed message by the moving grass is that “We started on our journey not for your door, but for any door, all doors, any shelter where we could be at rest” (38). As a result of the “blind groping” of nature, the plant moves in all directions (*A Year* 194). It does not specify one single aim, but rather, it directs itself in various directions and aims (*Field and Study* 37). This not only signals non-conscious intentionality of the plant life, but also it points out the principle of life in nature. A similar case applies to the seeds of the cat-tails that Burroughs observes. As he suggests “They look in all directions – north, south, east, west – and hence are sure, sooner or later, to blunder on the spot which they seek. Ten thousand miss the mark to one that hits, but the one does hit it” (*Field and Study* 310). This is why they are only seen to be growing in marshes. They grow in various directions by blind force, but end up in the most suitable location eventually. It can be considered as the push of life that moves them in various locations as a part of their non-conscious intentionality.

2.2.1. Vegetal Heteronomy

The plant’s tendency towards the other, aroused by its “non-conscious intentionality,” is called “vegetal heteronomy” by Marder (*Plant-Thinking* 67). Vegetal heteronomy defines

the plant's dependency on the other as literally referring to "the law of the other" (67). In the anti-metaphysical consideration of the plant life, vegetal heteronomy holds a grand importance since it connects the plant to others for the sustenance and pursuit of life. Evidently, plants need light, water, and minerals in the soil to assimilate into their system for life and nutrition. Thus, it can be said that the plant is "heteronomously regulated by elements in its own milieu" (170). As Burroughs suggests, "the influence of environment, the struggle for existence, and the competitions of life" are amongst the factors that are crucial in the development of living beings, including plants (*Under the Maples* 168). These listed factors show that Burroughs acknowledges vegetal heteronomy, as well. Each specimen belonging to a different family of plants is unique in terms of the scope of their heteronomy. This aspect highlights the heterogeneity of vegetal life since plants are, indeed, "a group of heterogeneous beings" which are distinctively "different from one another as a talk of wheat and an oak tree" (Marder, "Vegetal Anti-Metaphysics" 469). Therefore, it is crucial to acknowledge individuality and differences in, for instance, "a raspberry bush and moss, a mayflower and a palm tree" (469). John Burroughs advocates the same issue, which is evident in the lines, in his *Under the Maples*, where he makes a distinction between the giants, such as the sequoia, and other plant species. He writes that "The sturdy oak, the gigantic sequoia, are each equally finely organized in these parts [roots] that take hold upon nature," which is why some species are called "gross feeders" (4). This is due to the fact that some species require more nutrition for the sustenance of their life; therefore, their intake of elements from the environment is a lot more. The presence of suitable conditions in terms of both nutrients and weather conditions is pivotal in determining the process of the plant's growth. Not only are the availability of these sources essential, but also, the quality that they retain is crucial for the plant. An example for this is Burroughs' findings on corn as a crop. He finds out that while it requires around two or three weeks for the corn to cultivate, the quality of the water that it assimilates may deviate the time. If the salt levels in the water are higher or the water is turbid and roiled, then this time may extend more than expected (*Signs and Seasons* 190).

Additionally, the lack of essential sources is also determinative in the plant's flourishing. While good weather and suitable conditions have a positive effect on the growth, the opposite which is coldness or draught, have a negative or a delaying effect on vegetation.

John Burroughs remembers a memory from the spring of 1917 which carried on the effects of winter in his *Field and Study*. At that time, most of the trees bloomed late due to the harsh weather conditions. As Burroughs records, different types of trees, “all held back till they could stand it no longer” (15). Fruit bearing trees, such as the -cherry, apple, peach- were amongst the ones which did not bloom for a certain period of time because of the unsuitableness of the atmospheric conditions (15). Their heteronomy holds them back for a while, until they succeed in efflorescence. What amazes Burroughs is the fact that each one of these fruit trees bloom together at the same time when the conditions become more suitable (15). The general mindset tends to categorize cold weather as having a negative influence on plant life by holding back the growth and stopping the flourishing. However, in contrast, Burroughs also presents that cold weather conditions do not necessarily bring a negative effect on the plant life. In *A Year in the Fields*, he inspects nature and vegetal life in winter, especially when under the snow. He attributes the snow “the virtue of wool” since it provides warmth under the snowfall, which performs as a protector of vegetal life (8). He defines the snow as the “veritable fleece, beneath which the shivering earth ... is restored to warmth” (8). With the warmth and security that arises from being under the covers of snow, plant life is preserved until the snow thaws in spring.

Just as the life, in general, is “capricious,” so is plant life, as Burroughs suggests (*A Year* 45). It is arbitrary and susceptible to changes initiated by the other. As he further suggests “Life introduces something indeterminate and incommensurable” (*Under the Maples* 164). It is a part of life to pursue on arbitrary and unprecedented terms. Therefore, these forms of movement do not follow a linear path, however, they follow a rather complex pattern which tend towards various directions. This can also be explained by the tendencies of the natural world since nature, as Burroughs suggests, “works to no special ends,” rather it “works to all ends” and moving towards all directions (*Under the Maples* 191). Arbitrariness is an essential part of natural life that brings out disharmony. As Burroughs states “the world of the living things” consists of “disharmonies” within (192). He pursues that “delays and suffering” are the indispensable parts of nature’s “devious course” (192). This is to say that ebbs and flows are encrypted in the natural flow of life (*Field and Study* 154). Some natural phenomena such as draughts, famines, ailments and plagues are considered as negative interferences or experiences that natural life is faced

with. They are “vicissitudes ... that run through the life” of vegetation (153). However, as Burroughs proposes they are not malevolent, they are only “disharmonies” which are inclined to “defeat the orderly development of life” (*Under the Maples* 192). They are not perceived as bad behaviors or occurrences since “there is neither right nor wrong” when it comes to natural acts; because, these concepts “apply to our human conscious conduct, and not to the processes of Nature” (*Field and Study* 282).

John Muir, in his “A Windstorm in the Forests” makes a similar remark on the contingency of plants, especially pine trees, on the atmospheric conditions. Before pines are given a chance to “establish themselves,” they are faced with harsh stormy conditions (465). Especially the mountain pine is subjected to such severe conditions that it is possible to see “pines six feet in diameter bending like grasses before a mountain gale” (“A Wind-Storm” 465). These forms of disharmonies are the ones that happen in the natural course of life. However, they are frequently balanced by natural forces. If one surpasses the limit, the balance is maintained by its counterpart. As Burroughs suggests, “When one force pulls down, another force builds up” in order to create a balance in natural and vegetal life (*Field and Study* 155). In that, “nature is like a cloud that goes through the cycle of change and remains the same” (306). In addition, humans also contribute to the ebbs and flows of natural and vegetal life by mostly disturbing the equilibrium (157). However, the disharmonies inflicted by the humankind brings about “disorder” resulting in the destruction of “natural checks and compensations” (*Under the Maples* 193).

In explaining vegetal heteronomy, an example to be given can be the trees. A tree’s dependency on the other is similarly effective in its growth. Weather conditions and seasonal changes are pivotal in a tree’s life. The minute changes that are affected by atmospheric conditions are also immediately at play in the plant’s growth. Even though the bark of the maple tree is thick and protective, it is still prone to such changes (Burroughs, *Signs and Seasons* 241). Certain weather conditions affect the sap that the maple tree produces. Sap originally comes into existence by the relationship between warmth and cold. These two atmospheric conditions which are the contradictory others of the plant are equally important for the maple tree to produce sap (*Signs and Seasons* 241). It needs a crispy and breezy air along with sunshine for the production of the maple

sugar. However, if the conditions change into a hot day with intense humidity, “the flow of the sap lessens at once” (Burroughs, *Under the Maples* 73). In such a condition, as Burroughs observes, “It would seem as if the trees had nerves on the outside of their dry bark, they respond to the change so quickly. There is no sap without warmth, and yet warmth, without any memory of the frost, stops the flow” (73). Negative conditions in the weather influences the plant not only internally but also externally. Harsh and crude circumstances in the region, especially in the desert areas, may be reason of the external qualities of cacti, as Burroughs assumes. As he suggests, “Nature has her prickly side which drought and heat aggravate” which may be for the reason of survival (*Under the Maples* 144). He defines this reason as a “struggle of some kind which begets something like ill-temper in vegetation” (144). In vegetal life, “struggle for existence has been sharp and protracted;” therefore, it leads them to be “hardy and prolific” (Burroughs, *A Year* 153).

Metaphysics of plant life, especially from Aristotle’s perspectives on the plant’s dependent nature, perceives this side of plant life as “imperfect” because of the fact that plants rely on something other than themselves for living. Rather than seeing this facet as a part of plants’ capacity, earlier notions slant toward the notion of “incapacity” of the plant for not being able to “determine itself, [as well as focusing] on its rootedness outside of itself in the external element on which it depends absolutely” (*Plant-Thinking* 68). Therefore, while metaphysics demean the life of plant because of its dependency of the other, anti-metaphysics defines this as vegetal heteronomy, which can be considered as a part of plant capacities and capabilities. The latter notion calls for not only an ability for the plant to adapt others for its own purposes, but also a more complex web of relations for the life of plants. The plant’s relationship with its other is affective in their growth. The other may be the changing seasons, the weather conditions, the time, and the resources close by in the soil and on the outside. Burroughs, through a scrutinized observation, also acknowledges the heteronomy of vegetation. The abundance of trees, the health of the landscape and plentifulness of plant life around the region that he observes are reminiscent of the positive outcomes of their heteronomy. He grounds this conclusion of this healthy “meadow and pasture and tree fertility” on the “continued deep snows of last winter” (*Field and Study* 40). Snow or the winter season might have been considered as a negative other of plant life because of the harsh coldness that results in

an unsuitable condition for the living. However, snow, as the plant's other, by the duration of its thawing, provides the land and the vegetal life with an adequate amount of water to keep life flourishing. Burroughs presents a more positive approach towards the snow and winter by his observations. Another positive aspect of snow is that it indeed "warms and fertilizes" the land and the plant (41).

Plants' dependency on the other is performed through its assimilating the other. The plant is in a sheer mode of connectedness to its surrounding. The plant's other is inorganic matter that can be reached around its vicinity (Marder, *Plant-Thinking* 72). Whilst the minerals in the soil provide the plant with nutrients, the rain or possible water sources nearby enable the plant life to flourish. Burroughs, seeing the streams as the plant's other, suggests that their watery presence "idealizes the landscape, it multiplies and heightens the beauty of the day and of the season," through feeding plant life (*Signs and Seasons* 183). Sunlight, for instance, is pivotal in the plant's health. The intake of sunlight is affective in becoming of a plant, as Burroughs exemplifies, "Much sun-shine in our climate makes root vegetables fibrous and tough" (*Under the Maples* 128). However, this assimilation or adaptation of the inorganic matter is not to be mistaken by the concept of consumption. Consumption, which is a word derived from human behavior, aroused by capitalistic tendencies, for using up and exhausting resources, does not apply to plant tendencies. This is due to the fact that plants do not consume their other. Most of the plants, as Burroughs suggests in *Under the Maples*, "are delicate feeders in their mechanism of absorption from the earth and air" (4). They do not tend to exhaust natural sources which they attain for the purpose of growth, even though they are gigantic forms such as the oak and sequoia. Rather than consuming, the plant loses from itself in the process. As Marder exemplifies from the acts of pruning and trimming of the plant, "the more the plant loses, the more it grows" (*Plant-Thinking* 73). The plant proliferates through deficits. Indeed, as Burroughs suggests, the "loss in one sphere is a gain in another" (*Field and Study* 309). The generous expression of plants via exuberance is through their capacity for losing from themselves. Thus, for plants, losing from themselves does not end in negative or extinguishing result. If, for instance, "the runners of strawberries do not reach their goal, ... they finally stop searching for it in that direction," which signals an end from that specific part of the strawberry vines, which might be withered and lost, eventually (Burroughs, *Under the Maples* 214). However,

“the impulse of the plant goes out stronger and fuller on other sides,” which shows that from one loss arises a multiple potential wins (214).

Plants “extend themselves in space, exposing their vegetal bodies in utter vulnerability to being chopped off or plucked, harvested or trimmed, broken by a hurricane or burnt by the sun” (Marder, *Plant-Thinking* 74). John Muir defines the Mountain Pine physically being exposed to conditions induced by the harsh storms. He describes the species as “towering with outstretched arms on the rugged buttresses of the icy peaks,” being touched by the storm (“A Wind-Storm” 465). In severe instances, a leaf or a branch is removed or the whole body has fallen down. In *A Year in the Fields*, John Burroughs witnesses an instance where the branch of tree has been severely exposed to outer forces. In this case, an apple-tree has been damaged immensely by a woodpecker, as Burroughs observes. The branch, which is one of the most extensive parts of a plant, is exposed openly to possible damages. The “Health and vitality” of the branch, in this example and in numerous cases, are adversely affected by such acts that the part in question meets an end, eventually (*A Year* 36). Being exposed to such acts diminishes their physical being only in part. At times, they grow more from this loss. Similarly, Muir suggests harsh conditions, which affect the integrity of the tree, are also pivotal in “caressing them tenderly” and “stimulating their growth” (“A Wind-Storm” 465). Plants’ vulnerable existence through over expression of their physical bodies facilitates much more damage to be done to them, however, at the same time, it entails their inevitable proliferation and expressiveness (*Plant-Thinking* 74).

2.2.2. Vegetal Externalization

One of the ways that facilitates vegetal expression is through their externalization. Their being is expressed on the outside which is visible and observable. Life and growth patterns of plants are observable since they maintain on “a perpetual revelation,” as John Burroughs suggests (*Field and Study* 135). This is conveyed through the plant’s “objective superficiality” (Marder, *Plant-Thinking* 80). In Western thought, this term connotes another lacking that the plant has, which is an internal essence or meaning. The lack of interior meaning or wholeness cause perpetual loss for the plant bodies, as the ancient thinking proposes. As Aristotle suggests in *On the Soul*, the external parts of plants such as the leaves, “fall off from them even without being cut off” (318b10-15).

This is due to the plant's superficiality which entails the plant's lack of a "deep essence," which results in the plant's "cast[ing] off virtually any part of its parts without being fatally affected by this loss" (Marder, *Plant-Thinking* 80). What is left aside by this ancient thought is that it is a part of the plant's ontological existence that paves the way for the plant's losing certain parts that are disposable for the plant. They are detachable parts which do not harm the plant, let alone demean its essence. When it comes to the separate parts of the plant, the question of bearing essence comes up in earlier philosophies. While Theophrastus believes that plants are complex beings which come to being by their single parts that carry no primary essence by themselves, Aristotle does not agree with the idea of having no essence. Recalling metaphysical meanings to the plant parts, Aristotle associates parts of plants with meanings that add up to their essence and depth. An example to this mindset is the consideration of the root as the main source of life for plants, in Aristotle's thinking (Marder, *Plant-Thinking* 80). Burroughs touches a similar point in his *Under the Maples*, stating that "The summer robes of the groves and the forests" are in essence "more than robes," rather, they are "a vital part of themselves, the myriad of living nets with which they have captured, and through which they have absorbed, the energy of the solar rays" (2). The choice of the word "robe" stands for the leaves covering the crown of the tree. They surround the tree like a robe which is not limited to being an external quality. They signify vitality for the life of the tree since they form a live and active connection around the tree.

Within the considerations of vegetal externalization, the notion of commonality enters the picture. Marder's contemplation on this notion, influenced by *De plantis*, suggests that "various individual growths – plants, animals, humans, or other living creatures – are the manifold effects of the same impulse, which is the immutable metaphysical foundation for the innumerable changes that occur in 'living things'" (48). It can be asserted that all living beings come to be alive by the hand of the same force, disregarding divergent attributes of each individual entity. Thus, the commonality of vegetation entails "how amenable it is to homogenization" of the plant, as Marder suggests (*Plant-Thinking* 47-8). However, notions that classify plants into being common entities are questionable. The perceptions of vegetal life in regards to its commonality bring out a homogenized plant, whereas it is a heterogeneous being in essence. The former notion "leaves [not] enough space for differences among the living" (48). The use of the word "common" can

be interpreted as signifying “sameness” or monotony which is indicative of the “utmost banality” of the principle of life for all living beings (48). On the contrary, external qualities of plants bring out their singularities, as well as their non-identity. As Burroughs suggests in *Field and Study*, “the flowers are new, as the spring and summer are new, as each morning is new” (53). Each one that flourishes on the land is new, according to Burroughs, even if they may be the offsprings of the same species. They bear qualities that are not alike which removes them from totalitarian perceptions. From his reading of Darwin, John Burroughs infers that “there is in all living forms an inherent tendency to variation” (*Field and Study* 278). It is an inherent part of vegetal vitality to exist in varieties. Burroughs explains this by referring to two different types of trees;

It is the nature of the oak to produce acorns. Each after its kind. But what makes the kind – that is the mystery. The same chemical elements, more or less, the same physical processes in an oak and in a maple, the same water, the same soil, the same air nourish both; osmosis, endosmosis, oxidation, hydration, and so on, the same in each; and yet one is an oak, and the other a maple. (*Field and Study* 302)

Regardless of having access to the same sources, the variety in vegetal life is existent. Life constitutes a “myriad of forms,” all of which are peculiar (Burroughs, *Field and Study* 302). Having equal sources both in amount and quality does not result in a homogenized being. Heterogeneity of vegetal beings is not determined by such standards. Marder suggests that, in traditional philosophy, even the word “plant” seems as a “conceptual unity,” which stands out as a “signature gesture of metaphysical violence seeking to eliminate differences” (“Vegetal Anti-Metaphysics” 469). Since plants are heterogenous beings, all of which carry distinctive traits both in their systems of growth and in their physicality. Similarly, the pine tree stands out as the embodiment of heterogeneity of the arboreal species, as Burroughs suggests in *Signs and Seasons* (35). He underlines this facet of differentiation by stating “How different the expression of the pine, in fact of all the coniferae, from that of the deciduous trees!” (35). For this peculiarity, not only the “color and foliage” are influential, but also the “form” of the tree (35). In addition to being varied as species, externalization of plants also entails uniqueness of each part in a plant’s body. Each part a plant has is unique in their essence and completely different from one another. The same is observed by John Burroughs’ in his encounter with hepatica, a native genus to New England area. He records hepatica as “the gem of the woods” (*A Year* 50). This fascination stems from individuality that the

plant owns. Accordingly, in a gathering of these plants, “No two clusters [are] alike; all shades and sizes; some are snow-white, some pale pink, with just a tinge of violet” (50). All clusters are possessive of unique colors and sizes. Even though the plant is expressive in multitudes and clusters, still it pursues individuality and holds singular traits. He touches upon another similar point in *Field and Study* which underlines the uniqueness and non-identity of the vegetal life. He highlights the “ingenuity and inventiveness” of natural life by pointing out to the existence of “what diversity amid the unity, what unlikeness amid the sameness!” (161). He also pinpoints the originality of vegetal life by stating that “If they all descended from the same original type-form, how that form has branched like a tree in the fields - dividing and dividing and dividing again!” (161).

Into the abovementioned complexity of plant parts, Marder introduces the parts as “detachable, ‘prosthetic,’ supplement[s]” (*Plant-Thinking* 81). He explains that they are supplementary additions to the whole. An example to this are the leaves of a tree which are externally added and frequently being disposed of. These supplementary parts are regularly being shed and replaced with newer ones. Shedding of the leaves does not give harm to the health of the tree, but rather, in their absence, trees are able to get through the winter season (81). Diseases such as blight or other external forces like infestation may be instrumental in stripping the tree of its leaves. Since this excessive shedding is caused by outer forces, it may be incurable for the tree. Burroughs proves that “To denude a tree of its foliage three years in succession usually proves fatal,” because, eventually, the “vitality of the tree declines year by year till death ensues” (*Under the Maples* 4). In its natural course, shedding of the leaves is very common for the deciduous trees and evergreen trees. As Burroughs states, “The evergreens can keep a secret the year round ... How well they keep the secret of the shedding of their leaves! So well that in the case of the spruces we hardly know when it does occur” (*Signs and Seasons* 38). It occurs quite frequently that they go unnoticed since the tree is never seen as wholly stripped off its leaves. Rather, it keeps on shedding all year long. For the spruces, though, shedding of the leaves do not happen in the ordinary sense. Rather, these trees “simply outgrow them, after carrying them an indefinite time” (*Signs and Seasons* 38). This time may be as long as five or six years in some cases.

Being supplementary or detachable does not bring harm to the integrity of the plant. The leaf is still a part of a tree. However, as Burroughs puts it, “the tree never repairs its leaves. It may put forth new leaves, but it never essays to patch up the old ones. Every tree has such a superabundance of leaves that a few more or less or a few torn and bruised ones do not seem to matter” (*Under the Maples* 3). Marder exemplifies from the acts of pruning and trimming of the plant which do not result in a negative turn for the vegetal life since “the more the plant loses, the more it grows” (*Plant-Thinking* 73). As Burroughs further elucidates, plants’ casually losing from themselves is a part of their life. He sees that in the plants “All growth, all development, is a casting off, a leaving of something behind” (*A Year* 58). Accordingly, the casting off occurs consecutively in numerous parts of plants. As Burroughs records, “First the bud scales drop, then the flower drops, then the fruit drops, then the leaf drops” (58). From these lines, it can be inferred that shedding is a part of the vegetal growth that fuels further growth. Bud scales, for instance, drop so that the new step of vegetal succession follows in health. After this initial drop, the flower flourishes and it eventually drops. These falling behavior is indispensable for the lives of plants because it carries on a pattern of vegetal growth. A similar case also applies to the sap production of maples trees. As Burroughs suggests, in *Signs and Seasons*, “Sap-letting does not seem to be an exhaustive process to the trees, as the trees of sugar-bush appear to be as thrifty and as long-lived as other trees” (242). Sap is a part of the tree that is released and let go from the plant. However, this release does not diminish or lessen the health or vitality of the tree. It is disposable and reproducible for the plant.

The systems of shedding leaves for each tree follows on a different pattern which is indicative of the arbitrariness of the varied tendencies of trees. Burroughs, in addition to the example given above, looks into other patterns of leaf-shedding that different species pursue. The pine, for instance, carries on a regular order regarding this performance. The white pine, specifically, consists of both old and the new ones on its crown (*Signs and Seasons* 39). The leaves are supplementary; therefore, they are easily removed and replaced. Since their presence defines, in part, the externality of vegetal life, “What a change when the leaves are gone, and what a change when they come again” as Burroughs suggests in *Under the Maples* (2). They are representative of the tree’s health and vitality. The tree may be old, however, the leaves begin afresh, thus, adding up to its youth. The cambium deposit underneath the bark, which protects the liveliness of the tree and

promotes growth by reproducing fresh bark, represents “the girdle of perennial youth” (2). In a similar manner, leaves are “the facial expression” of the tree signifying its exuberance and vitality (2). Goethe attributes vitality to “the fruitfulness hidden in a leaf” (*The Metamorphosis* 67). With this statement, according to Marder, Goethe challenges the Saint Thomas Aquinas’ rendering which proposes that “Life in plant is hidden” (776). Marder suggests that plant life is not hidden, as the earlier thinkers proposed, rather it is right on the outside. It is not hidden deep under the soil, but it is directly “on the surface, that which is given to sight and turned toward the light, the trope of being-exposed, the leaf” (*Plant-Thinking* 82).

Plants are “living totalities” which are comprised of individually essential parts, all of which add up to the whole in their unique system and character (*Plant-Thinking* 81). All parts are subjected to change, to “metamorphosis”, as Goethe puts forth (*The Metamorphosis* 65). Through metamorphosis, the plant goes through transformation in its shape which can be defined as being other than itself. Metamorphosis wins over the notion of stable nature and lifelessness of the plant. In Goethe’s terms, “metamorphosis of plants” can be explained through the progression “by which one and the same organ appears in a variety of forms” (*The Metamorphosis* 6). This process is given in an example of the journey of a leaf, which gives out the seed that would turn into a flower and eventually become the fruit itself. This permutation is the plant’s “greatest expansion” as Goethe suggests (65). Marder explains this as “rhythmic vacillations of the leaf, which successively experiences phases of expansion and contraction” through which “a superficial supplement” -which can be the leaf or another external part of the plant- “constantly becomes other to itself” (*Plant-Thinking* 81). It is also explained by Muir that motion perpetuates differentiation in the vegetal being which promotes “changes of form, like mountain rivers conforming to the features of their channels” (“A Wind-Storm” 472). John Burroughs, similar to Marder’s ideas, believes that vegetal life is encrypted in “variations and modifications” (*Under the Maples* 165). He describes this phenomenon as “matter behaves in a new manner; builds up new compounds and begets myriads of new forms” (8). These changes that turn the plant into something other than itself brings out new varieties and new forms in plant life. He also provides an instance of transformation in plant life. He makes use of an internal part of a tree to prove his point. He exemplifies that “When the sap of the tree rises from the roots to the leaves, it is crude

sap; when it has been touched by the sun through the leaves and flows downward to build up the tree and its fruit, it is another matter” (*Field and Study* 237). Burroughs resembles the changes as in the movements of upward and downward channeling to that of a “circulation” in the plant (*Under the Maples* 7). Similarly, Burroughs examines the transformation that the maple trees go through, caused by their relation to the sunlight. The alteration is expressed in their leaves since they become more luminous reflecting the light beams (*Under the Maples* 3). He states, “In October a maple tree before your window lights up your room like a great lamp. Even on cloudy days its presence helps to dispel the gloom” (3). This quality is not possessed by many species. Some families like the elm, beech, oak have a lower level of luminosity. This is mostly due to the fact that they turn to brown before dropping with the closing season. Some species of the oak may reflect bronze or red at certain times (3). Therefore, it can be said that the life of plant and its identity is not stable, due to the journeys of metamorphosis and becoming other than itself. Vegetal life, as it is expressed in its exteriority, is in constant motion and change through transformation and becoming another.

Incessant change, which triumphs over stability, also facilitates shifts in the understandings of the essential parts of plants in terms of their importance and priorities. In considering the cause and effect duality, the plant remains on pendulous grounds. The first principle that marks the life of a plant may move from the seed, to the leaf and vice versa in accordance with the above explanation of metamorphosis of plant parts. Keeping in mind that “the most superficial takes the place of the most fundamental,” in the case of the plant, “The leaf usurps the originary status of the seed” (Marder, *Plant-Thinking* 82). Therefore, Goethe’s attribution to “the fruitfulness hidden in a leaf” is suitable in the regarding of vitality of the plant (*The Metamorphosis* 67). Similarly, Burroughs also captures a shift in the originary principle of vegetation. Life is within various parts of the plant. Therefore, just as the seed shifts positions with the leaf, so does the acorn of the tree. Burroughs shows that “the oak in the acorn” is descriptive of such an instance (*Under the Maples* 188). As much as the roles of the plant parts are in a constant shift and exchange, so is the land that furnishes the plant. Metamorphosis or the transformation of the plant can be observed in its adaptation to climactic conditions. Burroughs observes that in the West of the country, there is less rainfall compared to the Eastern section. Even though the West receives around one third of the rainfall of the East in a year, it turns out

that “the soil is curiously adapted to the climate” (*Under the Maples* 128). As he suggests “Trees flourish and crops are grown there under arid conditions that would kill every green thing on the Atlantic seaboard” (128). The role of the soil is crucial in harboring life on it. Therefore, the soil can be accepted as the plant’s other, since the latter’s growth is dependent on the former.

Individual and exterior plant parts are also another point that are widely discussed in terms of bearing life. Hegel believes that even though a plant is of organic nature, it is not accepted as an organism. It consists of organic parts which are interdependent on one another, along with pursuing interchangeable roles (*Hegel’s Philosophy* 303-4). Thus, rather than attributing singular traits and essential meaning to the parts, this metaphysical notion ascribes a more superficial role to the plant parts. However, as Marder suggests, this mode of thinking still refrains from totalitarian perception of the plant life (*Plant-Thinking* 84). These singular parts of the plant, the leaf, the flower, the root or the seed, are beyond the metaphysical notions that regard the plant as a stable whole. The inevitableness of metamorphosis or change that occur on the parts of the plant removes it from the aforementioned borders. Externality of plant parts defines their relationship with one another as “members of a plant and independent entities in their own right” (84). John Burroughs also examines individual parts of plants that are expressive of uniqueness and singularity, as well as being susceptible to metamorphosis (*A Year* 55). One of the parts that he looks into are the buds of trees. Diverse buds belonging to different families of trees, such as maple or willow, carry distinctive traits. Their color change along the way of swelling, as well as their scales. Whereas some of them glow, while they are at their peak, some others seem moisty with damp on them. They release a unique sticky matter on the outside, which is fragrant and nutritious for the bees, as well (*A Year* 55). These buds are traced both by temporally and spatially, since they grow and change in time, turn out to be something other than themselves.

The bud, as a part of the tree, carries unique characteristics. Naturally around April, the bud scales, which have been formerly attached to the tree, begin to fall on the ground. Since natural life is far from dogmatic notions, it is not suitable to say that every bud scale drops around the same time. Some of them stick more on the branch as the leaves grow. Following a metamorphosis, the bud scales turn into the leaves or flowers. Throughout

this process, if the scales do not fall off, they remain longer as a protective sheet for the fresh leaves. Eventually, these scales, which are bound to time and metamorphosis, wither and leave the branch that they are stuck to (*A Year* 56). A similar undogmatic notion can be seen in the plants' that do not originally have bud scales. An example to this can be the ferns, which sprout directly from the ground without any buds, as Burroughs exemplifies (57).

Being little as expressed by the presence of the vegetal being is an ontological part of vegetal life. Processes and members may pursue in smaller sections and bodies. Regardless of the spaciousness the plant holds by its body, its essence and meaning is embedded within the plant. Despite how small the members may seem, they are not denied the abovementioned qualities. The uniqueness of vegetal life, along with smaller members of vegetal community, arouses human attention to it. Singularity of being and carrying characteristics that belong to no other equally "is enough to arrest and hold the dullest eye" (Burroughs, *A Year* 51). A blue-purple hepatica, for instance, catches Burroughs' attention (50). Its individuality and uniqueness is marked by the fact that "No two clusters [are] alike" within the community of diverse hepaticas (50). Even though it is a small living entity, Burroughs is still able to examine its existence which "fully expanded and rising over the brown leaves or the green moss, [with] its cluster of minute anthers showing like a group of pale stars on its little firmament" (50-1). Yet, being small, in terms of taking up space in nature, might be one of the perspectives that leads to misperceptions in vegetation's growth patterns. The external quality of the plant that is observable on the outside by the acknowledgement of its outer body remains as a limited perception of the plant. As already mentioned, a plant is constituted of unique parts all of which carry on different paces of growth. A simple perception of the plant by taking merely its outer body into consideration does not suffice to grasp the life of the plant. In accordance, Aldo Leopold elaborates on the silphium plant in "Prairie Birthday" section of his *A Sand County Almanac*. He tells of a time when he dug up a silphium plant in order to relocate it to his farm. He resembles this time-consuming endeavor to "digging an oak sapling" since "the root was still enlarging, like a great vertical sweet-potato" (*A Sand County* 48-9). He goes on to state that the "Silphium root went clear through to bedrock" which resulted in an inconclusive effort since he was not able to uproot the plant from the land that it is largely and deeply connected to (49). He concludes that the plant

digs deep into the land in order to reach the water source due to the dry atmospheric conditions of the region, hence the roots are enlarged and buried deep into the soil. Evidently, appearances do not do justice to the unseen facts lying underground. Thus, only considering the outer body of the plant remains as a limited perception of the plant, since it does not suffice to grasp the vastness and complexity of the lives of plants.

2.3. VEGETAL TEMPORALITY

In discussions about vegetal existentiality, plants' time, space and their movement, as in relation so such factors, have a significant place. The dependence on temporality in plant lives is observable in their exteriority. Within the concept of vegetal temporality, vegetal time and space are interrelated. Outer forces and changes affect plants' growth. Vegetal growth depends on the other such as sunlight, rainfall, and seasons. The growth is under the control of the forces induced by the other. The growth is dependent on the others among which is the space. Availability of wide spaces are influential in the plant's growth. As John Burroughs suggests, "Weeds love a wide margin;" therefore, it is essential for the plant to acquire a space for itself to grow (*A Year* 143). He refers to the spaciousness of the United States of America, as a region, by stating "Ours is a weedy country because it is a roomy country" (143). This is advantageous for the vegetal life to flourish in abundance. Similarly, as the space is crucial for the vegetation's growth, so is the time. The time transpires as a "slow process" which highlights the growth of the plant as can be seen in its "stalk bring[ing] forth the flower" (Burroughs, "Animal and Plant Intelligence," *Leaf and Tendril* 169). Thus, the time of the plant, as Burroughs' lines suggest, can be observed externally since it is reflected as its growth and change. Plant time is influenced by and depends on the other's time. This phenomenon, which defines the dependency of "the spatio-temporal movement of plants, [which is] nonsynchronous with human time" is named as "hetero-temporality" by Marder (*Plant-Thinking* 12). Aldo Leopold captures the "spatio-temporality" of plants, as well. In his "Prairie Birthday," a section in *A Sand County Almanac*, he observes the silphium plant that he planted on his farm. When he plants the seed of the plant, after giving it an adequate amount of time, he observes that a healthy sprout comes out. However, as he states, "after five years of waiting the seedlings are still juvenile and have not yet borne a flower stalk" (49). He infers from this lateness of the flower that it might take "a decade for a Silphium to reach

flowering age” (49). The plant, evidently, requires an amount of time in order to settle on the land that it is germinated. Once it is accustomed to its vicinity, it goes on to produce roots that move persistently downwards for the sustenance. It results in the growth of the silphium plant whose roots might be mistaken for the roots of an oak because of their enlarged figure (48). He also infers from the growth patterns of the silphium plant that this plant has a specific tendency of being dependent on its other which is also affective in its time. He states,

I once saw a power shovel, while digging a roadside ditch, sever the ‘sweet-potato’ root of a Silphium plant. The root soon sprouted new leaves, and eventually it again produced a flower stalk. This explains why this plant, which never invades new ground, is nevertheless sometimes seen on recently graded roadsides. Once established, it apparently withstands almost any kind of mutilation except continued grazing, mowing, or plowing. (Leopold, *A Sand County* 49-50)

Thus, it can be said that the plant’s hetero-temporality and spatio-temporality is influenced by various attitudes that the plant is exposed to. While mild encounters with others do not extinguish the life that keeps on flourishing, excessive behaviors induced mostly by the acts of the human-kind results in the extermination of the plant. In spaces where the damaged silphium is observed, it might be due to the acts of grazing. If the plant seems to have outlived such conditions, it might mean that such acts have been “tolerable” for the plant (50).

Seasonality, in addition to temporality, is amongst the chief matters that are utilized while looking into vegetal life, as Ryan suggests in “Writing the Lives of Plants” (99). Seasonal changes are effective in the lives of the plants since the latter is dependent on the former. Marder, also refers to “seasonality” as a recurring fact that surfaces in the observations of vegetal life (“The Weirdness of Being in Time” 335). Thus, time cannot be separated from the definitions that describe the lives of vegetation. In order to grasp vegetal life through their growth patterns, “one only has to allow time enough” (Burroughs, *Signs and Seasons* 200). The circular motion that can be traced in the succession of the seasons is also traced by John Burroughs. His *A Year in the Fields* has been composed by eight consecutive essays that follow the seasonal changes. Starting by narrating the winter season, the collection continues till the end of fall. Through the essays that are gathered for this collection, he records seasons and months and their effects on the plant life. The first two parts are primarily about winter consisting of Burroughs’ observations of the

animals in the vicinity and, especially, birds. Since the land is covered thoroughly by snow, plant life stays hidden under it. Common plants and weeds are under the snow waiting for spring to thaw and to be explored. Therefore, he only observes the trees which stand above the snow as a shelter for birds and other animals. The following two parts record the spring and April, when “the first quickening of the earth” is encountered (*A Year* 51). Especially plant life is the focus point of his observation in these parts of the collection. Burroughs observes flowers, plants and seeds and takes accounts of their greening and flowering processes, as in relation to their temporality and seasonality.

The fifth part and the sixth part follow along summer when life is expressed at its highest point. Especially in the sixth part, titled as “A Bunch of Herbs,” which is subcategorized into two sub-parts which are “Fragrant Wild Flowers” and “Weeds,” John Burroughs presents native plants in their liveliest moment in summer along with other plants from the Old World. This section involves detailed descriptions of various species of plants ranging from flowers to weeds along with their smaller yet influential parts such as their roots and seeds. This section, specifically, provides an insight to Burroughs’ perceptions on lives on plantal level. The seventh part traces the coming of fall season when the liveliness gradually begins to fade. Even only by observing the plants, one can understand the change of seasons, according to Burroughs. He traces the changes in plantal life which he calls as “mortal ripening” (161). This ripening of plants in the form of blackening reaches an end with the closing of the season until the coming of spring for the plant to resurface and begin afresh. Spring is the “vernal season” as Burroughs puts it (*Field and Study* 101). The freshness and liveliness multiplies within the vernal season. Into the succession of the seasons, Burroughs also adds his perceptions on observing and tracing the changes. As the seasonal changes are directly reflected on the lives of the plant, as its other, it is possible to catch it by human perception. However, it is not an easy task to accomplish for the eye since “there is nothing that sates or entirely fills it” (*A Year* 54). This is also due to the smallest changes that occur in vegetal life that are not grand, therefore not easily captured by the eye. Quickening of the land occurs through slightest changes, which are visible to the trained eyes, such as Burroughs himself. Still, it is not in impossible task, as Burroughs suggests. As the time passes by, with the emergence of new spring seasons every year, the eye becomes more functional and stimulated, as well as being more experienced and alert (55).

Seasonality is affective in the lives of plants. Marder describes the changes of seasons and their effects on plant life as follows, “The seasons combine planetary and cosmic time with temporalities of vegetal growth and agricultural practices: sublunary and supralunar rotations, the circular time of repetition and the linearity of growth extending in all directions at once, beginnings and ends that morph into new beginnings” (“The Weirdness of Being in Time” 335). These lines are explanatory of the plant’s dependency on the seasonal time which, in return, brings about a transformation in the plant. The alteration occurs in all directions and resists linearity, which results in a change in the plant, as can be observed in the patterns of life, growth and decay. Vegetal temporality also reflects in the growth patterns of vegetation in the ways that the change of time can be observed from the plant’s cycles of life. As Burroughs exemplifies, “When the chestnut-tree blooms,” it can be understood that “the meridian of the year is reached” (*A Year* 159). Thus, it can be understood that the temporality is affective in the lives of plants, as can be observed in the changes that plants go through.

2.3.1. Hetero-Temporality of Plants

The plant’s temporality, namely its time, is substantial in the understanding of vegetal ontology. Time is encrypted in the plant’s cycle of life. This cycle, harboring temporality of the plant, is progressed through the plant’s “Germination and growth, flourishing, dehiscence, blossoming, coming to fruition,” and passed through the final steps of “fermentation and decay” (Marder, *Plant-Thinking* 94). However, regardless of how clear it is on the outside, vegetal time is perceived to be lost “in the process of its actualization” in Western philosophy (94). The reason why Marder pays much attention to vegetal temporality as a part of his ontophytological perception is that he proposes “the meaning of vegetal being is time” (95). Time is of essence in defining the meaning of vegetal life. Time is a mode of being which represents an expression of vegetal being and its existence. Thus, “hetero-temporality” of plants can be explained as being “governed by the time of the other” (Marder, *Plant-Thinking* 12). Marder, in *Plant-Thinking*, looks into the temporality of vegetal life in three stages which are as follows: “the vegetal hetero-temporality of seasonal changes; the infinite temporality of growth; ... and the cyclical temporality of iteration, repetition, and reproduction” (95). John Burroughs situates the plant between “a tale of time and change,” which have an interrelated effect on the lives

of plants, highlighting the dependency of the plant on the time, and the sequence of change and transformation that follow along (*Field and Study* 177).

In the Aristotelian perception of motion that follows the plant's mobility –through growth, decay and repositioning–, the last point added is the plant's time (*Plant-Thinking* 95). It is proposed as the range that measures the scope of motion. Therefore, time can be appropriated into the changes that occur in the plant's life. Even if the plant is incapable of changing its position, it is still subjected to time (106). Time, as expressed in the plant's life, is its “ontological makeup, determined by the capacities of its particular form of life” (95). Time is situated at the center of the plant's movement. Through time, certain potentialities of plants reach their actualization. Some failed attempts that happen in the plant's life, such as dried seeds or buds that do not open up, are seen as negative occurrences that will not be included within the timeline of the plant (98). These forms of potentialities are excluded from the time spent through growth in Hegelian perspective since they do not reach their actualization. However, disagreeing with Hegel, Marder suggests that “these moments of non-fruition and non-accomplishment constitute the very temporality of time” (98). He categorizes these failed attempts that indeed happen through a certain amount of time as “temporal ‘truth[s]’” (98). It shows that Marder's plant-thinking moves beyond the dualities of “possibility-impossibility” and “potentiality-actuality” in the consideration of plant time, since he accepts both versions within the scope of vegetal time as truths that happened temporally (98). Similarly, Burroughs also acknowledges that there are “whole truths, half truths, and quarter truths, if not still smaller fractions” (*A Year* 209). The “half truths” in question bear parallels to Marder's “temporal ‘truth[s]’” since both concepts refer to the heteronomy and hetero-temporality of vegetal growth which is bound to the variables in external forces.

Plants depend on their others for the purpose of growth. It relies on the sunshine, water, and minerals; thus, it cannot be thought otherwise than its relations with others. With this in mind, it is not appropriate to eliminate time from the complexes that surround the plant. Therefore, time can be accepted as the plant's other. Time is processed through the maturity of the plant, which is induced by outer forces. The other's presence and time accordingly affects the plant's time; therefore, the time of the plant can also be reflected as the time of the other (*Plant-Thinking* 100). Time, that is expressed through seasonal

changes, is not linear. It is to say that time of seasons are in cyclical motion, as well as variables within a season. Since seasonal changes are also the other of the plant, their time is also affective in the plant's time as well as its growth. Change is visible in the time of the seasons, which is also intermingling with the previous one, as well as the upcoming one. An example to this is, as John Burroughs presents, is reminiscent of the previous cold season on the month of April. As he suggests, "April is pungent. There is frost enough in it to make it sharp, and heat enough in it to make it quick" (*A Year* 43). These lines are suggestive of the month's non-linearity that is driven from the fact that it "never cloy upon the palate" in as much as "It does not surfeit one with good things" (42). The cold and the heat that are present in it, leads the way for a variety of interpretations. It does not pursue stability, in addition to sole positivity. Both sides, that are negative and positive, are traceable throughout the succession of the month, and the seasons. The presence of both the low and the warm temperature, which are also the others of vegetation, are influential in the plant as well. Burroughs catches a glimpse of such a plant of April, which is the watercress. This genus carries the pungency of April with it. The fact that it is a common plant of April does not diminish its rough nature, since it is an essentially wild plant (*A Year* 43). Yet, winter season, even though it may seem as bringing a negative outcome for the vegetal life, becomes nourishing at times. The health of grass and weeds as seen in "meadow and pasture," along with "tree fertility" have been seemingly affected by the snow in a positive way (Burroughs, *Field and Study* 40). Thus, vegetal hetero-temporality can be perceived in the cycle of seasons that the plant follows and becomes affected by the changes in the meantime.

It is to be noted that time does not follow a liner path as though it is a mechanic organism. As Burroughs remarks "There are slumps, lapses, delays, waste. The seasons, as we name them, follow one after another, but there are set-backs, cruel frosts, or unseasonable heats, or droughts" (*Field and Study* 309). This results in an unreliable sequence for the vegetal life due to its dependency of time and time of the other. Since the "course of the seasons never does run smooth," so does the vegetal growth (Burroughs, *A Year* 162). Plants may get a "late start" or even "germinate prematurely," as affected by their time (*A Year* 138, 192). As Burroughs suggests, some species become affected by their mis-positioning within the time. For instance, "If amaranth, or abutilon, or burdock gets a late start, it makes a great haste to develop its seed" (*A Year* 138). This stems from their dependency

on the time which is affective in their healthy growth. Their behavior also changes due to their hetero-temporality which can be evident in their haste to “keep up with” the passage of time (139). Similarly, redroot also becomes affected of time, as Burroughs finds out; “let it get a late start, let it come up in August, and it scarcely gets above the ground” (170). Evidently, recent technological and biological advancements have also positively or negatively contributed to the plant’s growth by either slowing down the pace or accelerating its growth. Cultivation of the land by external additions have also affected the potentials of the plant in terms of growth. This type of human-induced agro-capital factors have been influential in determining the time of the plant, as well (*Plant-Thinking* 101). Similarly, temperature-controlled spaces which harbor various plant families have also made an effect on the growth patterns of plants. Creating superficial environmental conditions have been in the control of the agro-capitalist human societies. Although they appear to be human achievements on the life of plants, they still “do not negate a preexisting ‘natural’ condition,” but rather they seem as “interject[ing] themselves into the place of the plants’ other” (102). Marder asserts that these form of interferences with the natural pace are violent acts. Interference with the being’s growth and managing its time means to control its being. Such a regulation would deny the singularity and originality of the entity (102). What can be considered as natural can be the change of the seasons which naturally affect the plant’s growth and its time. The shifts and passages of seasons clearly delineate the plant’s hetero-temporality (109).

Plant time is measured in accordance with the plant’s dependency on the other. Therefore, it cannot be thought outside of its relations with others. In addition, it does not fit to humanized standards or systems because plant time, just as plant movement, is not applicable to human time or movement. According to Marder, plant world and human world are separate from one another, as it is already discussed. In an encounter with the plant world, two separate realities come across one another without thoroughly intermingling (*Plant-Thinking* 9). In a similar manner, human and plant temporalities are differentiated from one another. It is not probable to consider plant temporality as having the same qualities with the human counterpart, let alone occurring simultaneously at a relatable pace (Marder, “Plant Intentionality” 1367). As Marder suggests, “even when they share a physical space, the two beings do not live in the same homogenous time;” therefore, they are “non-contemporaneous with one another” (*Plant-Thinking* 103). Life

is an ongoing course that is processed through time which occurs relatively in both counterparts. According to John Burroughs, “Life appears to start in several things simultaneously” (“A Sharp Lookout,” *A Year* 208). Both in the human world and in the plant world, life pursues through growth in various paces and rhythms. It would be a failed attempt to consider that a single rhythm is entailed on the Earth. As Henri Bergson suggests in *Matter and Memory*, “In reality there is no one rhythm of duration; it is possible to imagine many different rhythms which, slower or faster, ... [belong to] different kinds of consciousness” which highlights their singularity and “fix their respective places in the scale of being” (207).

In addition to drawing a line between two temporalities, Marder also suggests that the plant time is often unnoticed by the human perception. Highlighting the two prevailing temporalities, Marder suggest that this backgrounding of plant time is due to the aforementioned split between the two counterparts, plant and human (*Plant-Thinking* 103). Another reason he puts forth is because the growth patterns of the plant are not easily detected, therefore it is possible to miss or overlook plant temporality as reflected in its growth. Humans cannot fully witness the span of plant growth, which results in the plant’s going “unnoticed below the threshold of human perception” (103, “Plant Intentionality” 1367). This is due to the “asynchrony between our attentive gaze and the movement of plants,” whose “rhythms of growth ... diverge from those of human consciousness” (Marder, “The Place of Plants” 187). When in close proximity with the plant, human perception appears as lingering around the plant which does not seemingly perform any mode of growth. Because of this perception, plant time is perceived either as absent or not measurable (187). On the contrary, as Marder suggests, “The increase or decrease of a plant’s extension may be observed only across an interval of not attending to it, a gap, in which something has been imperceptibly going on” (“The Weirdness of Being in Time” 338).

For Burroughs, the notion that stimulates the human perception to be receptive of ongoing processes is their curiosity (*A Year* 42). Curiosity keeps the senses alert and ready to capture. Another particular way, Marder proposes to acknowledge the temporality of vegetal growth, is through keeping away for a certain period of time. After that interval, the time can be perceived as existent in terms of plant’s growth since it will be evident in

the physicality of the plant which exposes a “spatial increase” (Marder, *Plant-Thinking* 103). For the growth and increase to be observed, “one only has to allow time enough” for the plant to express itself through its heteronomy on the time (Burroughs, *Signs and Seasons* 200). In accordance, temporality of the plant is also suggestive of the plant’s spatiality.¹¹ The time of the plant is expressed through the plant’s growth in its spatiality. It can be inferred from its appearance as more expanded and heightened, and through the newly emerging shoots. Since vegetal time cannot be expressed through humanistic norms and understandings of time because it is “untranslatable into the intervals of duration familiar to human consciousness”, it “dissolves into vegetal spatiality” (Marder, *Plant-Thinking* 104).

It has already been discussed that the plant entails a multiplicity of identities through its unique parts (*Plant-Thinking* 43, 84). In a similar manner, the plant is constituted of “a loose alliance of multiple temporalities of growth” which indicates that the plant is “not contemporaneous with itself” either (104). A similar case can be seen in the seeds which have a variety of times in its correlation with others. The seeds are produced endlessly by the plant; however, not each seed germinates. This is due to the fact that the seed’s time is “Continuous with respect to the ‘mother-plant,’” while it is “discontinuous in relation to a plant to-come” (“The Weirdness of Being in Time” 341). As Burroughs observes, in the flourishing of new leaves in the tree’s foliage, various temporalities crash. A tree’s bringing our fresh leaves even when the tree is relatively old also shows the same side. In such a case, “How young the old trees suddenly become!” as Burroughs suggests (*Under the Maples* 2). To the existence of the old leaves, fresh leaves are added in the pine. While the former has run through its temporality reaching towards the end, the latter begins anew in an instant minute. Burroughs explains this instance as “The decay stops just where the growth of the previous spring began” (*Signs and Seasons* 39). This notion is based on the existence of various parts in a plant body which grow or decay at a different pace. While one part may grow and come to fruition, another part may be finalized in

¹¹ The plant’s spatiality can easily be observed through time-lapse photography. Photographs that are taken at regular intervals throughout a specific amount of time prove the plant’s growth which occur at various parts of the plant in variable amounts. The leaves or the body of the plant can be observed to have expanded and grown more in space. In order for tracking the plant’s growth, those photos can be used for reference and as proof (Marder, “The Place of Plants” 187, “The Weirdness of Being in Time” 338).

decay. It entails a simultaneity of a range of stages happening at the same time in the same body. This fact is indicative of the plant's lack of "self-identity" (*Plant-Thinking* 104), as well as its "non-synchronicity with itself" (105). Bereft of a "unified self," the plant is contingent upon the "undifferentiated other," which associates the vegetal being with "heteronomy and hetero-temporality" (105). The plant's other is not differentiated from the plant because of its inevitable reliance on the other. This, in return, results in a multiplicity of identities and possibilities present in a body that are singularly subjected to various laws and conditions.

Another point the plant temporality entails is incessant change and transformation. Temporality brings the relation that is evident in the plant because of its dependency on its other. This reliance turns into an observable change in the plant's being since the other is always affective in negating the plant. Since the plant is strictly related to its environment, it is subjected to "alterity" stemming from the influence of time (Marder, *Plant-Thinking* 107). The time is observed through the metamorphosis that the plant goes through as can be seen in its "stalk [that] bring forth the flower," as Burroughs suggests ("Animal and Plant Intelligence," *Leaf and Tendril* 169). In addition, as Burroughs exemplifies from *Antennaria*, their strict bonding with the time shows "how alert and vigorous they are," especially within a point of time when "purplish tinge comes over their mammae-shaped flower-heads, as June approaches" (*Field and Study* 212). The body of the plant changes in time to become something other than itself. As Burroughs also presents, "under the magic of the sun's rays," the plant life flourishes, develops and transforms by introducing new existentialities within (*Under the Maples* 10). From its contingent temporality, with the coming of summer, "the scales fall from their buds ... breaking into leaf and bloom and fruit" (10). Alterity of the plant indicates the plant's "openness to the other," thus signaling the "hetero-temporality of vegetal existence" (Marder, *Plant-Thinking* 107). The fact that the plant undergoes stages of growth, ripening and decay is indicative of the plant's reliance on alterity. The correlation between time, movement, and hence, the alterity is, in Marder's words, "the conceptual knot" which is embedded in the plant's life ("The Weirdness of Being in Time" 338). Vegetal alterity can also be seen in the movement that is portrayed by the branches of certain trees. Trees, such as the spruce, pine and hemlock, have a branch at the top that is "the central and leading shaft" (Burroughs, *Signs and Seasons* 36). In an instance of losing the central

upright branch, both species do not generate a new sprout. Instead, another branch which is originally placed on the lower part from the top begins to rise and take the place of the leading shaft (*Signs and Seasons* 36). Therefore, the growth does not occur by the production of a new one, but rather, an existing limb permutates and rises up in time adding up to the plant's alterity.

2.3.2. "Bad Infinity" of Plants

Plant life is associated with an increase of growth and life that is limitless. This growth which is a capacity of the plant introduces other connotations to the discussion. "Bad infinity," in this sense, is another term in the discussion of vegetal time (Marder, *Plant-Thinking* 24). It is "the cumulative open-endedness of progress that eschews any inherent limits" (Marder, "The Weirdness of Being in Time" 342). The concept emerges in the nineteenth century German philosophy by Hegel. Marder defines it as the plant's "outer growth and augmentation, devoid of any final accomplishment" (*Plant-Thinking* 12). Bad infinity shows a plant's tendency for unlimited growth without reaching an end. The concept is mentioned by John Burroughs, as well. In *Field and Study*, he questions the forces that mediate natural life by referring to "*ad infinitum*" (190). There is no final destination or a goal of the plant, in terms of bad-infinity. John Burroughs adds that "Nothing begins *de novo*" which refers to the lack of a definitive line between the beginning and the end (244). No form of vegetal life begins anew and out of nowhere without a traceable point. It is because "Everything has its antecedent, or refers to something gone before" (244). The previous entity facilitates the beginning of another identity in an infinite motion. Thus, as Burroughs proposes "the original type is never departed from," even though the growth and re-production of the plant follows on unlimited possibilities (*Signs and Seasons* 35). As Burroughs brings forth, pine trees are an example to this facet, since the production of shoots, buds and branches are stemming from the same stalk, even though the production is fresh every other year (35). He also refers to this tendency as the "old acts, played again and again" during the lives of plants (Burroughs, *Under the Maples* 197). They are old because they repeat themselves on and on, without reaching an end.

Perennial plants are following a cyclical motion which iterates itself every year through the seasonal changes. They continue to grow every year which repetitively ensues each

year, while the annual plants reach an end at the end of the season. While the vegetal growth, in essence, is limitless, it is limited in terms of its “outward extension,” which is dependent upon the external forces aroused by the environmental and climactic conditions such as the amount of rain and sunshine that the plant is exposed to, as well as the quality of the soil that it gets the nutrition from (Marder, *Plant-Thinking* 25). There are some factors which are effective in the bad-infinity of the plant. The plant’s cambium layer, for instance, is the fosterer of the endless growth and life of vegetation. Burroughs calls this part of plant as “the girdle of perpetual youth. It never grows old. It is annually renewed” (*Under the Maples* 5). No matter how old the tree gets, this layer supports the growth incessantly, which signals to the plant’s bad infinity (5). It is a part of vegetal life to pursue living on an immeasurable time. As Burroughs suggests, “The beginnings and the endings of things are baffling,” which is applicable for the case of plants, as well (*Field and Study* 189). In addition, weeds such as the – milkweed, Canada-thistle, live-forever – have the tendency of growing and coming back into life in an unlimited extension of time, as Burroughs suggests in *A Year in the Fields*. As he comments, “We crop it and mow it year after year; and yet, if the season favors, it is sure to come again” without an interruption or hesitation (158). Burroughs further explains in *Under the Maples*, “The leaves and the blossom and the fruit of the tree come and go, yet they age not” (2-3). The exuberance of vegetal life defies the limitation of aging because the growth is “repeated over and over” in different parts of a plant at dispersed intervals (3). In that sense, plant life keeps its “immortal youth,” thanks to its reaching out to limitless time (Burroughs, *Field and Study* 53).

Similarly, the transformation that plants, especially in the foliage of trees, go through is called as the “mortal ripening,” which resembles to an end (Burroughs, *A Year* 161). However, the alleged end does not occur because “the genial warmth repossesses the land” and triggers new growth in the vegetation by starting a new cycle of life, as determined by the passage of seasons (162). The blurred line between the beginning and the end transpires in the foliage of the tree, as can be seen in Burroughs’ observation of the maples, which follow as; “How young the old trees suddenly become!” (*Under the Maples* 2). The age status cannot be foreseen since being old and young intermingles within time. Thus, time stands out as a complexity in which neither the end nor the beginning point is decipherable. This is because life seems to have “arrived” before it

“starts” (214). In that, “slowness” or “insensible changes” are common in the considerations of vitality (Burroughs, *Field and Study* 189). In natural and vegetal life, “The happenings are at intervals and are irregular” which is indicative of the fact that “The play of Nature has no fixed programme,” as Burroughs suggests (214). In an effort to decipher or measure the beginning or ending of vitality, Western minds fail since they attempt to “measure the infinite by the finite,” since “there is no beginning or ending ... there is only continuance with incessant change” (244). This results in a continuum of vitality which is formulated through constant alteration of the living matter.

Michael Marder refers to the tendency of plants for growth as, “The way they tend to their other without measure, without limit, without term, and without ever reaching their final destination,” which indicates that plants reach no end in terms of their growth and tending towards the other (*Plant-Thinking* 107). Fields of philosophy, especially Western philosophy, refrained from looking into this subject because of the plant’s “monstrous growth and immoderate proliferation, whose possibilities are, *stricto sensu*, never realized” (107). The reason why the plant’s over growth and over expression have been perceived as intimidating is because Western philosophy and thinkers seek for a limitation, a final end or aim for actions regarding the life or being. Within that way of thinking, any entity holding such extravagancies would be disregarded. As Marder suggests, metaphysics take the plant as the subject of their attention only “with the purpose of taming their proliferation and of appropriating their time, measuring it, and declaring it deficient in keeping with this measure alien to human beings” (108). When there is no comparable counterpart on the side of the humanistic norms, Western philosophies tend to look down on the potentialities of the plant categorizing them as inefficient, because of their lack of “a sense of its humanness” (Burroughs, *Field and Study* 115).

In terms of the plant’s bad infinity, it can be said that the plant does not reach a bar where its desires are satiated. For the purpose of nourishment, the plant does not express any form of fulfillment which can be evinced by its constant tending towards the other. The plant, throughout its lifetime, tends towards various points for the reason of nourishing itself. This drive is “not an interrupted process but a continuous flow,” as Hegel suggests (*Hegel’s Philosophy* 305). Within this continuous flow, there is no end or satisfaction, as

can be suggested in the following lines that the plant “does not take sips of water” (308). The tenets of vegetal existence which include “infinite growth, immoderately aspiring toward the other” entail infinity (Marder, *Plant-Thinking* 109). This is due to the absence of a measure or a lack of beginning or ending for the capacity of desire for nourishment. In *A Year in the Fields*, Burroughs gives an example to such plants. This facet of vegetal life is quite obvious that even some species are named after their unlimited growth and life, such as the garden orpines, which are also named as “live-forevers” (152). They incessantly “thrive and multiply” even when they are threatened “under the plow and harrow” (154).

The plant is thoroughly engaged in the process of its nourishment, therefore, it seems as the time is perpetuated on the act of nourishment. Even though it may seem as if the time has stopped during that time, the plant’s time is, indeed, embedded within the “continuous flow” of the plant towards sustenance (Marder, *Plant-Thinking* 108). However, the time is interrupted at times by the plant itself. Such is called as the “self-interruption” because it is related only to the plant itself as the original source (110). It can be observed in the metamorphosis or the alterity of the plant which follow at various rhythms simultaneously. Different layers of the plant grow and flourish at different spans on time, therefore time passes on either “contraction” or the “expansion” of the plant (110). As Burroughs remarks “There are slumps, lapses, delays, waste. The seasons, as we name them, follow one after another, but there are set-backs, cruel frosts, or unseasonable heats, or droughts” (*Field and Study* 309). These delays and stops are common; yet, the flow of life still pursues in tendency of “bad infinity” in the lives of plants. The delays that are likely to occur in winter, or in cold weather conditions, create a divergence in the plant’s identity. It can be said that the plant stands on two states, which are their “slumbering and liquid[ity]” (Burroughs, *Under the Maples* 10). Their “slumbering” in cold and winter, transforms with the spring and summer, in which the cycle of life continues with a flow of “living energy” (10). Multiplicity of identities for the plant, therefore, can be evident in its time as well. As Marder puts it, the “rhythm of vegetal growth contains discontinuity right in the midst of continuity and time in the midst of spatial augmentation” (110). These variables in the plant’s growth are representatives of “finitude at the heart of infinity, the traces of ageing on the ostensibly immortal body of the plant” (111). Even though plant existence is associated with “bad infinity” because of the limitless growth and tendency,

the varieties of time and metamorphosis of different parts at diverse paces point out to the plant's finite life. In the mode of infinity, the plant still pursues a mortal life that ages and withers.

2.3.3. Iteration of Vegetal Growth

As much as the plant's growth is linear as can be traced in its time which reaches out to infinity, it is also cyclical. Being cyclical stems from the processes of growth in the plant that follows a pattern of flourishing and deterioration. Circular motion and processes in the life of vegetation is traced by John Burroughs, as well. He refers to this pattern, specifically as, "Circles, circles, everywhere" (*Field and Study* 190). He suggests that circles are the essence of natural life, as well as plant life. He claims that "All natural forms strive for the spherical" which highlights the universal trend of "circular movements and circular forms to which the Cosmos tends" (*Under the Maples* 191). Vegetal life shares its own circularity in the existence of life. The course that vegetation pursues is always a roundabout one" (180). Not only the plant's appearing and disappearing, which are life and death, follow on a cyclical pattern, but also their susceptibility to the passages of day and night. Growth is the encompassing phenomenon that facilitates alteration in plants through the movement of the Earth around itself and around the sun, which forms the days and nights, as well as the changing seasons. The succession of plant growth which follows a cyclical pattern through time is called as "iterability" of the plant (Marder, *Plant-Thinking* 112). Time follows a cyclical outline in nature as can be exemplified in the perpetual seasonal changes and the beginning of the day and the night. It is, in Burroughs' terms, "played again and again" during the lifespan of plants (*Under the Maples* 197). A similar arrangement is reflected in the plant's new buds and falling of its leaves, or opening of a flower and closing of it. Such can be accepted as the "cycles of vegetal growth" (Marder, *Plant-Thinking* 113). The former cycle, which is a grand iteration of seasons, is affective in the plant's cycle of growth. As John Burroughs explains it, "In the growth of most plants or weeds, April and May represent their root, June and July their stalk, and August and September their flower and seed" (*A Year* 170-1). Each month is representative of another part of the plant, except for the winter months when the life is protecting itself from the cold.

The plant is susceptible to seasonal changes, or namely, it is compliant to the Earth's movements of rotation around itself and the sun. The plant's susceptibility to the rotation of the seasons for its growth can also be seen when the plant does not follow it. For example, redroot plant is one of those which flourish and grow in its capacity when it sprouts at the suitable time. However, "let it get a late start, let it come up in August, and it scarcely gets above the ground" (*A Year* 170). In such a case, it turns towards its seed, rather than exposing itself over the soil, as Burroughs articulates (170). This order of following the Earth and the seasons is not a standardized mechanical function; rather, this repetition or reiteration "avows every single moment of vegetal existence and confirms its unquestioned allegiance to the other" (Marder, *Plant-Thinking* 113). This strict relation, similarly, brings forth the plant's dependence and reliance on the other. The seasonal changes and the plant's dependency on it, also returns as a relationship in which the former protects the latter's integrity. Burroughs also touches the same point in *A Year in the Fields*, as pointing out to the fact that snow covers and protects the vegetal life underneath during winter. It is a part of the vegetal life to adapt to winter season which has a protective effect on the lives of plants. This dependency has a positive outcome for the iteration of vegetal growth since it facilitates the health of vegetation to flourish in the following season (8).

Iteration of plant growth endows another capacity to the plant since it does not end the plant's existence. As Marder states in *Plant-Thinking*, "repetition achieves the exact opposite of deadening" which is accomplished by the plant's "inability to maintain a static identity to itself" (114). Not having a static identity helps the plant protect its life and growth by the iterating its processes through time. Marder proves that by proposing "There is no life without iterability" (114). As Burroughs suggests, "Every year sees a new and enlarged edition of the book of nature," which signals to the endlessness of vegetal life which repeats itself each year with higher exuberance (*Field and Study* 128). In accordance, as Burroughs suggests, vegetal life carries on "movements [which] are circular" (*Under the Maples* 214). Through the passages of years, vegetal life is exposed to iteration and flourishing in which it begins anew. As opposed to being static, or having a static identity, plant life resurfaces afresh and exposes itself in a different manner each turn. Death is not in question since vegetal iteration entails a new beginning. A similar point is mentioned by Burroughs in *A Year in the Fields* as the winter not suggesting death

for the plant. The cycle of floral time is in accordance with the seasons. The same applies to the case of the winter season, as well. Winter might freeze the life underneath, but it does not end the life thoroughly (8). Similarly, in *Field and Study*, Burroughs touches on the interconnectedness of life and death. Mentioning “decay and corruption” throughout the plant life as “the work of living organisms,” is suggestive of the vegetation’s “growth and health” patterns (187). Therefore, as he suggests both concepts are allusive to one another. Burroughs grasps the generative power that is in the plant. According to him, there is a “creative energy immanent in matter” (*Under the Maples* 168). Creative energy exists within all species, including the plants. Thus, a variety of beings in the vegetal world is facilitated by the creative power that is found in plants. This creative push, the will to power, or proliferation in vegetal terms, supports this claim.

Iteration is a part of vegetal creative power. One of the most obvious parts of the plant that participates in the acts of iteration is its leaf. Leaves are often shed and renewed and the process is frequently repeated. Repetition occurs on the most important aspects of a being. As Deleuze puts it “repetition is a necessary and justified conduct only in relation to that which cannot be replaced” (*Difference* 1). Even though the part that is repeated may seem insignificant at a glance, the iteration occurs because it is something that cannot be substituted with another. Marder pinpoints that “Only the irreplaceable, only absolute difference in itself may be repeated” (*Plant-Thinking* 114). Similarly, iteration is traced by Burroughs in *Field and Study* in the abundance of seeds produced, especially, by the burdock plant. As he suggests “The plant if unhindered grows three or four feet high and bears about five hundred burrs, which usually have twelve seeds each, or six thousand seeds to the plant” (35). Iteration of the burrs that harbor the seeds proves the reproduction of “the irreplaceable,” since they carry life within (*Plant-Thinking* 114). Burroughs also suggests that leaves are assertive of “immortal youth” of the tree; however, they are substitutive only in their relation to one another (*Under the Maples* 2). One emerges, lives and dies in a circular motion following an iteration of the process. This motion of growth shows that “the last leaf that comes to the branch is as young as the first” (2). This line, stated by Burroughs, points out to the patterns of circular and iterative growth in vegetal life.

John Burroughs also keeps track of the succession of the processes that the plant goes through in its cycle of growth. Highlighting his own understanding of disposability of vegetal life whilst growing, he suggests that “All growth, all development, is a casting off, a leaving of something behind” (*A Year* 58). From these lines, it can be inferred that Burroughs also acknowledges the metamorphosis that the plant is exposed to via leaving parts behind. The parts that are outstripped are disposable and harmless; yet, they are essential for the growth. The shedding of the plant begins with the bud scales falling off. It continues with the flower, the fruit and the leaf as the final sequence of dropping. The first two fallings which are the bud and the flower are “preparatory” signaling the spring season, while the last ones which are fruit and the leaf are “the crown” pointing out the coming of fall (58). He furthers his outlook with inspecting smaller parts of the plant which carry resembling traits of cyclical iteration by shedding or disposing. He moves his focus onto the seed in a similar manner. He tracks “the shell, or outer husk, is dropped or cast off; then the cotyledons, those nurse leaves of the young plant,” consecutively followed by the fruit, the stalk and finally the leaf (58). This cycle turns towards the emergence of fresh parts that will promote the life of the plant.

The plant’s repetitive nature, also, points out to its exuberance of life and multiplying. Countless times the leaf is iterated in the lifetime of a plant. Through this mood of vegetal expression, it is signaled that plant life is exuberant and abundant. Exuberance of vegetal life, especially in the forested areas, is frequently highlighted by John Burroughs, as well. Places where the vegetal life expresses itself in high density are recorded by Burroughs in his observations. His encounters with “the dense, trackless woods” have been often repeated since he is physically out in nature where he coincides with vegetal abundancy (*A Year* 100). Also in the deciduous trees, it can be observed that “they tend to branch endlessly,” in that, “they divide and subdivide until the original trunk is lost in a maze of limbs” (Burroughs, *Signs and Seasons* 35). Their branches, in this case, file the ground for perpetual and ceaseless production of the plant in which “new buds, new shoots” along with new leaves are likely to be reproduced (35). Burroughs borrows from Emerson in forming his point which looks into such tendencies by the vegetation. He proposes that “‘Nature is a spendthrift’ ... She is lavish of that of which she has the most. She is lavish of her leaves” but more precautious when it comes to what is less in numbers such as the flowers or fruits (*Under the Maples* 195). Repetition occurs in the individual bodies of

the plants, as well as within the plant itself. The certain parts that the plant has the capacity to produce the most become shed or spent. The spendthrift behavior facilitates further growth of the already lost parts. However, it is crucial to mention that repetition does not mean to produce exactly the same thing over and over. As Trewavas suggests “variation” is embedded in this behavior of “modular development,” which repetitively “generates enormous numbers of leaves, buds, flowers and roots” (“Mindless Mastery” 841). Brand new plants sprout from the seeds scattered by the same plant. Similarly, each time, a new leaf comes out in the branches of the plant. Therefore, the outcome of iteration is the emergence of unique parts every time (Marder, *Plant-Thinking* 115). Iteration does not entail the repetition of the same, but it includes alteration in the same event. Throughout the single act of repetition, a new being with a unique quality comes out, which indicates the alterability of vegetal life. Vegetal life alters every time in the face of stability. The fact that “every leaf will vary with each repetition of the material expression of the material being of plants” is the manifestation of the plant’s being, as Marder suggests (*Plant-Thinking* 116). John Burroughs suggests the diversity within the plant life that resists sameness and static identity. He states that “the likeness to the tree fails when we consider that no two branches are alike; in fact, that they are as unlike as pears and peaches and apples and berries and cherries would be on the same tree – all of the same family, but diverging widely in the species” (*Field and Study* 161). Being divergent is in the essence of vegetal being. Each species in the plant families are different from one another, as well as being diverse in the same body. Pointing out to the differentiated branches, Burroughs highlights his perspectives both on the iterative tendencies of the plant and the non-identity of the plant in the process of iteration.

One point where iteration may not occur, or takes place rarely, is the case of a specific species, which is the pine. While the leaves are among the most iterated parts of a tree, it does not repeat itself in pines because they are not amongst the deciduous trees. Therefore, as John Burroughs observes in *Signs and Seasons*, “The pine has no power to develop new buds, new shoots; ... no power of spontaneous variation to meet new exigencies, new requirements” (35). It is a more static type of tree which follow on a stricter course. Instead of renewing itself and adapting to conditions that affect its heterotemporality, it resorts on a regular trend in growing its branches and buds. In an incident where this regularity is disrupted, it remains “powerless to adapt itself to any other,” since

in its temporality, “spontaneous development of a new bud or a new shoot rarely or never occurs” (36). Parallel to this trait of the pines, hemlocks carry on a similar pattern ontologically. The hemlock, stripped of all of its buds, do not develop new ones even in the duration of more than a year. It does not lessen its vitality, as Burroughs observes, yet, it pursues living without any leaves or buds (36). These instances prove that some of the plants do not follow iteration in some of their functions due to the lack of capacity for sprouting fresh offshoots.

The rising of an already existing grown branch assuming the role of the leader in the above mentioned type of trees brings another point about vegetal life’s temporality. As Michael Marder suggests it is their “deceleration” or their “lack of agility,” which defines the ontological slowness of vegetal growth at a cellular level, which is apparent on the exteriority of the plant, as well (*Plant-Thinking* 128). This slowness is definitive in the existentiality of plant life. Indeed, as John Burroughs adds, “Vital beginnings are brought about by slow ... changes,” which situates slowness at the center of vitality and life (*Field and Study* 189). It is also crucial in defining the mobility of plants which is mostly incomprehensible when compared to humanistic or animalistic pace. The slowness of vegetal growth is reflected in the acts that the plant performs throughout its lifetime which extends over a long period of time. As can be observed in the instance of another branch reaching to the top. As Burroughs observes, this process takes years for that limb to fully assume its upright position. In the case of one of the hemlocks that he keeps tracks of, “The third year it [the newly rising branch] stood at an angle of about forty-five degrees; the fourth year it gained about half the remaining distance ... In five years it would probably have assumed an upright position” (*Signs and Seasons* 37).

The existential concepts that are discussed in this section are for the purpose of gathering both Michael Marder and John Burroughs’ perspectives which delve into the modes of being that are appropriate for plants. These qualities are circled around the capacities that plants are individually capable of. In their modes of being on earth, plants are subject to changes that happen around in their vicinity, which is indicative of their heteronomy. Due to their being susceptible to changes, they change in time which is reflected in their externalization. Not only their physical existence on the face of earth is crucial for understanding their existentiality, but also their position within time. Time has a major

effect on vegetal life since it directly influences the course of plant life. In addition, time is a part of their existence since their tendencies of iteration and re-growth and germination depend on the time, in which plants follow a non-linear and circular pattern. The concepts that are mentioned in this section are based on Michal Marder's philosophical articulations on the lives of plants. Yet, they are, in a similar manner, explored by John Burroughs in his works, as well. Even though the notions are mostly based on recent studies on plant existence, Burroughs also discusses on plant life in a rather revolutionized way, compared to his timeline, which is parallel to Marder.



CHAPTER 3

JOHN BURROUGHS AND PLANTAL BEHAVIOR

“It is utterly impossible for human reason ...
to hope to understand the generation even of a blade of grass
from mere mechanical causes.”

Immanuel Kant, *Critique of Teleological Judgment*, §77

“Flora enseigne ces vérités à qui sait l’écouter, puis l’entendre.”
“Flora teaches its truths to the one who knows how to listen to it,
and then to understand it.”¹²

Michel Onfray, *Les formes du temps*

In the considerations of vegetal life, the patterns that define various behaviors or acts of plants are to be looked into. The variety in behavior and actions stems from vegetal freedom. Vegetal freedom is indicative of various qualities that the plant has. These qualities are “indebted to disseminated possibilities” (Marder, *Plant-Thinking* 117). However, in Western philosophy, plants have been excluded from the scope of freedom. In traditional Western and metaphysical perceptions, plants which are “presumably devoid of selfhood, whose roots tether it to the earth, making it into a veritable symbol of stupor and immobility ... [without having] no self, let alone an individuated ‘will’” have not been widely accepted as having the capacity of freedom (118-9). Nevertheless, it is possible to consider freedom in the discussions of the lives of plants. Michael Marder supports the positive inclusion of the plant into the sphere of freedom. Their freedom saves plants from the Western perception of them as inferior beings (121). When metaphysical considerations of plants are left aside, plants are perceived as “overreaching to the existential domain (usually reserved for human beings alone)” and participating in the spheres of “freedom ... and wisdom (or intelligence)” (90).

¹² The English translation from the French is originally given by Michael Marder in *Plant-Thinking* (203).

Aristotle proposes that “Some things exist, or come into existence, by nature; and some otherwise” (qtd. in Marder, *Plant-Thinking* 120). Along with animals and basic elements in nature such as fire, air and water, plants are also one of the presences that “exist by nature” (120). As Marder suggests, “plants not only *are* but also *exist*” (90). This perception extends to suggest that plants not only “exist by nature,” but also they “exist by themselves” (121). Therefore, plants are ontologically free by their existence in nature by themselves. Freedom is embedded within the being of the plant supported by its existence on its own. Through their existence, plants claim a “purchase on life,” unfiltered by metaphysical attributions that have forced them to be “objectified” (90). In that sense, plant behavior stands out as being present in various possibilities and representations. Acknowledging that the plant is “generational, flourishing, decaying, and regenerating,” which represents in the plant’s life “a cyclical movement that opens unto the vast domains of planetary time and soil composition, among other things,” it is possible to mention that there are others who or which join into the scope of freedom (“A Philosophy of Stories” 193). Therefore, as Marder suggests, “Everything and everyone that is participates in these cycles, joining their rotations before and often without, [are] making a conscious decision to do so” (193). These members and factors shape the behavior that the plant expresses within its environment. John Burroughs also joins in discussions about the various behaviors of plants. In defining vegetal behavior, it is crucial to acknowledge the dominancy of vegetal freedom, which results in variables of behaviors and attitudes. The plant’s freedom resists being “stereotyped” and challenges the notions that are “dogmatizing about living things” (Burroughs, *Under the Maples* 164-5).

3.1. VEGETAL FREEDOM

Vegetal freedom defines the relations that the plant builds with others. In essence, plants are “growing beings,” which go through metamorphosis in their nature (*Plant-Thinking* 121). In the process, they turn into something other than themselves which is definitive of the essence of freedom since it “refers to the possibility for an entity to be otherwise than what or who it is” (119). The plant’s relation with others is affective in defining its freedom. It can be said that the plant is “elastic, to the point of indefiniteness ... that underwrites its freedom of multifaceted involvement with the other beings that exist by nature” (121).

Being free refers to being otherwise than the living entity already is. Ontologically, a free being can be explained as something “that is capable of not being as it is” (*Plant-Thinking* 119). Because of plants’ connectedness to the land, they are originally thought to be incapable of making decisions. That is to say, because of being “‘genetically determined,’ ... they would be prevented from determining themselves by themselves and from exceeding the province of their existence” (120). For that reason, traditionally, they are considered to be “unfree” (120). The plant’s freedom enables an “emergence out of itself of growth” (120). It means that plants are capable of coming into being by their growth. Even though external qualities are influential in plants’ lives, they “are not dependent on their other in the same way as manufactured artifacts are” (120). Similarly, Burroughs captures the freedom of plants by their existence in the fields which have “never been seeded by man,” even though the vegetal species – such as the grass – becomes the most common species of that vicinity (*A Year* 158). Therefore, it can be said that the plant is capable of coming into being on its own, which is another level of vegetal freedom. Accordingly, in *A Year in the Fields*, Burroughs suggests that plants are capable of changing the qualities that they own through the passage of time in one season. One flower -Canada violet-, for instance, did not have any fragrance in the beginning of the season, but grew to have it as time has passed. Burroughs explains this instance as referring to the change the plant has gone through, stating that “as the season advanced the fragrance developed” (131). This shows that while the plant started its cycle of life without having any scent, it has transformed to have a perfume and become something other than itself through the passing of time. While the plant could be described as being scentless, now it can be referred to as being a scented flower. This highlights the plants’ having non-identity, which in return, shows that they are not themselves. Similarly, they are not comparable to or associated with another since they resist to standardized norms of vegetal being. Since there is not another comparable to their being, they cannot be categorized as entities “as such” (Marder, *Plant-Thinking* 13). They cannot be strictly and clearly categorized because of their freedom to become other than themselves. Similarly, Burroughs exemplifies another Canada violet flower that he has found, which “was quite as fragrant as the English violet, though the perfume is not what is known as violet, but like that of hepatica, [which] comes nearer to the odor of certain fruit trees” (*A Year* 131). From these lines, it can be understood that plants are not bound to having only one certain

type of smell, which is attributed to them in their definitive categorization. Instead, they can release unexpected fragrances which may often be emitted by other species. Another aspect of fragrance, which evinces freedom of plants, is that the fragrance changes in time. In the beginning, the flower may start as having a sweet odor, however the smell becomes unfavorable and “stale” after some time (131). Therefore, the transformation of the fragrance also show that the flower is free.

In being other than itself, Marder refers to crystals and touches upon a resemblance between the plant and the crystal. Plants also have a crystal-like quality and shape. Burrowing from the writings of Ponge, Marder suggests that “vegetation gives birth to living crystals” (*Plant-Thinking* 127). Crystals are the inorganic matters of the Earth, in general (Marder, *Plant-Thinking* 127, Burroughs, *A Year* 11) Similarly, John Burroughs also suggests that plants are made of crystals. The order, according to Burroughs, follows as the emergence of “the crystal first, the cell last” (*A Year* 10-1). Crystals come together and form up cells, which in return, creates the vegetation. The vital principle of life introduces this unique principle “operating in non-living matter to produce the living” (Burroughs, *Field and Study* 189). Burroughs also explains that “Cell upon cell rises the vegetable,” through the works of the “crystal wedded to and compacted with crystal” (*A Year* 11). The crystals that Burroughs mentions are the minerals and nutrients that the plant receives and assimilates for its own use. Accordingly, Marder comments that plants collect the minerals and elements “from their immediate existence, dispensing to them new ontological possibilities” (*Plant-Thinking* 127). Thus, it can be said that the word crystal refers to two parallel meanings in a plant’s life. The first one is, as Burroughs suggests, the plant is made up of numerous elements that come together and form a plant. The second, as Marder suggests, plants extricate the crystal minerals from the earth and air and translate them for nutrition. In both cases, the crystal becomes something other than itself, as initiated by the plant. In return, the crystal element also enables the plant to be other than itself throughout its life with growth. This facet is also indicative of the potentialities that arise from the freedom of plants.

Marder defines freedom, suggesting that “to be free is to be without a head (*ergo* without consciousness), without worries and concerns – to be indifferent, to be a plant” (*Plant-Thinking* 119). To be indifferent can be explained through the individual plant parts that

perform at will. Since the plant is an organism that is constituted of various parts, which are “dispersed” in “plurality,” they are “mutually indifferent to each other’s existence” (132). It can be seen in the parts of the plant which follow on a variety of growth and decay patterns all at once. Their indifference also drives from their docile nature and carelessness, as Marder suggests (132). They do not pursue malicious behavior towards the other or they do not exhaust their other. They do not reside to cruelty nor they feel worry. In times of danger, however, it is proven that plants do not maintain their indifference. In order to protect themselves, driven from their will to live and survive, they perform in ways that prove otherwise of being indifferent (132-3). As Marder states, “The thorns of a rose and the mildly poisonous kernels of apples and peaches” are amongst the methods that sit well with the plants desire to protect themselves from danger or predators (134). However, there are no bad doings or misbehaviors in the lives of plants since “Right or wrong apply to our conscious human conduct, not to the processes of Nature” (Burroughs, *Field and Study* 282). Thus, the humanistic concepts such as bad or good do not apply to vegetal life, since they remain “irrelevant ... just as upper and under do not apply to the orbs in space” (306). Having thorns or poison, similarly, do not show a bad intent; rather, they stand for the plant’s will for “power, progress, [and] success” (282).

3.1.1. Liberation of Plants

Freedom can also be traced in the exteriority of the plant. The mode of being free from attributed or forced qualities points to the liberation of plants. As Marder suggests, referring to Kant’s *Critique of Judgement*, plants also offer freedom in beauty. As it is stated, a flower is a “‘free beauty’ of nature, free because extracted from the Aristotelian logic of finality, unconditioned either by the concept of beauty or by considerations of practical utility” (Marder, *Plant-Thinking* 140). The beauty of the plant does not depend on any final outcome, as Marder suggests. John Burroughs acknowledges that the scope of beauty includes all, such as the “disagreeable and repulsive,” as well as the most common such as the “simple grass” (*A Year* 215; *Signs and Seasons* 234). For this reason, the plant is not considered to have “dependent beauty,” which binds the plant to conceptuality and instrumentality (Marder, *Plant-Thinking* 140). Marder’s “free beauty,” coincides with Burroughs’ “negative beauty,” that is contemplated on in *Signs and*

Seasons. As Burroughs suggests “negative beauty” includes the vastness and over exuberance of vegetal life along with other huge natural elements that take up a grand space on the surface (*Signs and Seasons* 249). His “negative beauty,” leaving aside instrumental qualities, “affords the mind the conditions of beauty, namely, health, strength, fitness” (249). Accordingly, as Marder further explains, “There is no transcendental ideal of a beautiful flower, for floral beauty is grounded solely in itself, in each singular flower. It arises freely, *sui generis*, puts up a powerful resistance to idealization” (*Plant-Thinking* 140). In a similar vein, Burroughs also highlights the beauty of the plant with its “delicacy and color and fragrance” which emerges and generates from the seeds that “lay dormant in the soil” (“Animal and Plant Intelligence,” *Leaf and Tendril* 168). Thus, beauty is not attributed to the plant by its physical aesthetic sides or utilitarian purposes, but by “its many curious traits and habits” (Burroughs, *Field and Study* 210).

John Muir’s “Calypso Borealis” bears similarities with this facet of the plant’s free beauty by coming into existence “freely, *sui generis*” (Marder, *Plant-Thinking* 140). Muir encounters the species of *calypso borealis* in his walk and he perceives the plant as standing and existing on its own. It is out of sight settled on a place, which is very challenging to reach for a human. Yet, it exists there rigorously, full of health. As Muir recollects, these plants were all “alone,” unaccompanied by others; yet, “so full of life” (Muir, “For the Boston Recorder”). It shows that the beauty Muir found in *calypso borealis* is not dependent, but it is free. It does not have an instrumental goal to be reached in order for it to be attributed human idealism. This is, as Marder puts, “akin to the being of plants themselves” (*Plant-Thinking* 140). Removing the plant from the “realm of necessity and from the considerations of utility” results in the “liberation” of the plant (141). Such perceptions of seeing the plant as free fit into Marder’s idea of thinking of plants. Similarly, Burroughs also presents grass as a “free beauty,” bearing parallels to Marder’s way of thinking of plants (*Plant-Thinking* 140). Burroughs, in *Signs and Seasons*, presents the grass as having the aforementioned quality that stems from its free existence. The fields and areas are vastly greened by “the beauty and effectiveness of simple grass,” as Burroughs describes (234). Thus, Burroughs’ grass, when looked through Marder’s perspective, seems as a simple being in vegetation, which is representative of carrying independent beauty for simply existing and “aris[ing] freely” and “*sui generis*,” on its own (Marder, *Plant-Thinking* 140). This shows their free beauty

as they are “beautiful in and of themselves,” underlining their independence (Burroughs, *Signs and Seasons* 250). Grass, in abundance, draws “a picture of the plenty and the flowing beneficence” in the places where it flourishes (Burroughs, *Under the Maples* 75). It exists as it wishes without yielding to satisfying deeds which are favorable on the side of the human others. Linden trees, as well, pursue on appearing and they “sprout freely” (Burroughs, *Field and Study* 39). Even though they do not make it till next season, they still arouse freely without making “no headway” (39).

Additionally, Marder’s belief of the plant as arising “freely, *sui generis*” where the plant “puts up a powerful resistance to idealization,” can also be evident in plants that are less favored (*Plant-Thinking* 140). For instance, the cactus can be one of those less favored plants which resists the meanings that are attributed to its negative quality of being needled. As Burroughs proposes, “If the cacti were created that grazing animals in the desert might have something to feed upon, as our fathers’ way of looking at things might lead us to believe, why was that benevolent plan frustrated by the armor of needles and spines?” (*Under the Maples* 144). If the plant was existing in order to be fed upon by the animals in the desert where the lack of water and other resources is prevalent, then why would it be covered with spikes? The instrumental purpose, as proposed by the Western philosophies, comes into a clash because of the spikes of the cactus that might indeed be harmful for the others. However, what Burroughs means is that the reason behind this is away from such expectancies. Since the “conditions are fierce” in the places where cacti reside, it results in the emergence of “the living forms,” which are “fierce” by nature (145). Similarly, spines and thorns of black-berry bush and wild-gooseberries prove in the same vein that harsh environmental conditions are affective in the emergence of plants which are harsh by their nature (144). Additionally, even certain fruit trees such as the apple or pear, “when in rough and barren places that have a severe struggle for life,” are seen to grow “sharp, thorny branches” (144). Thus, it appears that the cactus also exists freely on its own with its spikes and needles, which come into existence because of the plant’s adaptive skills to its harsh environmental conditions. As Burroughs believes, had there been no animals in the desert in the first place, “the cacti would have had their thorns just the same” (145). Therefore, it can be understood that there would be no change in the nature of the cactus whether there would be an enemy or not; hence, it would eventually result in the same condition for the cactus to bear spines. Similarly, some species such as

the American aloe or yucca are also known to be thorny. In their nature, they are quite thick and woody. Therefore, they are not favored as food for other animals. Their inedibility, in this sense, is not in relation to being thorny and needled (148). Thus, it can also be said for these species that their existence is not related to any meanings that may be attributed to them. They do not have thorns to be protected from others, let alone they have a favorable taste or edible quality.

Another aspect added to the free beauty is the plant's "itinerant beauty" (Marder, *Plant-Thinking* 142). It refers to the tendency of the plant to travel or wander. It stands out as proving the opposite of the Western perception of plants as passive and inactive beings because of their rootedness. Marder explains that the seed falls off from the plant. From that moment, the seed is perceived to be lost. The lost seed begins to wander in nature. Affected by the figure of chance, the seed may or may not germinate. If it germinates in a distant vicinity, the germinated seed produces a brand new plant that is distinctive from its progenitor (143). This distinctiveness is also mentioned in John Burroughs' *A Year in the Fields*. The plant becomes other than itself once its seed is separated from the plant itself. Burroughs exemplifies the spiked loosestrife which originally is not native to the United States. As he suggests, the plant was "probably first brought to this country as a garden or ornamental plant;" however, in time it turned out to be seen in marshes or along the creeks as a crowded community (142). The beauty in wandering of the seed stems from "chance ... which portends the beauty of what is unpredictable, unknown, discrete, discontinuous, and non-reproducible even in the middle of the reproductive cycle" (Marder, *Plant-Thinking* 143). Similarly, Burroughs also looks into the wandering seeds that are moved across distant lands (*A Year* 142). Chance and unpredictability play an important part in the appearance of the most unexpected plant species. One example Burroughs provides is the English chickweed that has been come across in an uninhabited island at the antipodes. This means that the plant appears on a place on Earth which is on the exact opposite side of where it originally belongs to. The species, as Burroughs states, center around the grave of a British soldier. For this reason, it seems that the seed might be carried by the shovel that was used during the digging of the soldier's grave (143). Thus, by chance or by unknown and unpredictable means, the plant becomes carried away and gets settled in distant and unusual lands.

Similarly, another example Burroughs presents is the inter-spatial occurrence of plants. This shows that the plant may germinate in quite distant and different quality lands. He tells from memory that while digging up a well, a farmer once “came at a great depth upon sand like that of the seashore; it was thrown out, and in due time there sprang from it a marine plant” (*A Year* 138). This example shows the even though the plant is originally belonging to the water or watery lands, it may germinate in unexpected and varied quality of lands. Therefore, whilst being a marine plant in its origin, the plant may sprout from the soil on the surface. Another aspect that brings forth the liberation of the plant is its flourishing from unprecedented sources, in addition to flourishing in unexpected places. Plants are liberated in terms of their growth since the nutrition, which they need, is not necessarily situated on a soil or a ground on earth. Therefore, at some times, plants can be seen to sprout from places that are not traditionally on the ground from the soil. Burroughs, in *A Year in the Fields*, comes across a hemlock tree that was “established upon the end of a large and partly decayed log” (192). As long as the log is nutritious for the plant, it can successfully flourish on that source. The norm or the expected appearance of a plant is traditionally from its original source by scattering of the seeds. However, plants may also appear from the least expected sources. For instance, as Burroughs suggests “wood-ashes will bring in the white clover” (*A Year* 137). Even though wood-ashes may appear to be irrelevant in terms of facilitating the germination of the clover, in fact, they turn out to be supporting the appearance of white clover. Similarly, the germination of birch trees specifically on rocks also brings another facet of the liberation of plants by defying certain expectancies of their growth (Burroughs, *Field and Study* 36).

Another aspect of freedom, as captured by John Burroughs is the plants’ freedom to bear certain qualities. This quality may be having fragrance or not. In *A Year in the Fields*, he supports this notion by providing examples from the same species -violets- from the United States and England. Even though the same species have odor in England, their counterparts in the United States are odorless. Very rarely, as Burroughs suggests, one can spot fragrant ones of violets when compared to the abundance found in the species with fragrance in England. Burroughs refers to the species’ hiddenness because of not being seen by the English travelers. This is due to the fact that in the United States, these plants are “rather shy and withdrawn” (125). While locational differences might seem

sensible for such division in the plants, Burroughs' next example proposes otherwise. Loosestrife, hepatica and liver-leaf are examples to this since these species in the United States are only at times fragrant. He names such plants as being "intermittently fragrant" (130). Regardless, the notion that these plants are "deficient in this respect" of having fragrance, entails the plant's freedom to be as it already is (125). It may bear a certain scent, or none at all. As Burroughs further exemplifies, "Some hepaticas are sweet-scented and some are not, and the perfume is stronger some seasons than others" (210). This happens either by chance or affected by certain stimuli. Nonetheless, it undertones the freedom of plants by having the choice or not, by being scented or odorless. This phenomenon also highlights individual characteristics and differentiations of plants. In addition, it is suggestive of the plants' defying human-centric expectancies from a certain plant. The expectancy stems from the Western conceptual generalization of the plant, assuming that similar or the same plants have the same quality. Rather, as it can be seen Burroughs' example, the plant resists such norms, defies the human expectancies and expresses its freedom by being as it is. It also shows that variety in vegetal life sustained through their freedom. They resist to stability by becoming something other than themselves through changes and metamorphosis. As Marder suggests "To attribute static identity to the plants' way of being and thinking" results in the "disregard of their very vivacity" (*Plant-Thinking* 162).

Burroughs' perception on the lives of plants also brings out his understanding of singularities and uniqueness in plant life. He asserts that "I shall probably never see another just such day as yesterday was, because one can never exactly repeat his observation" ("A Sharp Lookout," *A Year* 183). No day would be repeated in the same way without perceiving of a change. There may be a reiteration in the manner of the procession of the days; however, it does not suggest that the day that is experienced would be exactly the same in terms of natural and vegetal life. This is due to the fact that it is not possible to "turn the leaf of the book of life backward ... because each day has characteristics of its own" (183). Above lines prove that Burroughs is appreciative of uniqueness in nature and individual differences of its members. The same species of trees, reaching maturity at different points of time, are indicative of "the individuality of trees of the same species," as Burroughs suggests (*A Year* 172). Such individual differences are also seen in the parts of plants as well. Within the same tree, leaves carry on distinctive

growth patterns as can be seen in their colors. Especially in fall season, the foliage of a tree carries on a variety of colors simultaneously (173). Burroughs observes this phenomenon, especially in the maples. Some maples, as he gathers, seem to be “ripening their leaves early and some late, and some being of one tint and some of the other” (172). As Burroughs further analyzes, apple orchard carries similarities to that of the maples since they harbor a great diversity within. As he suggests, some of these trees in an apple orchard “are harvest apples, some are fall apples, and some are winter apples, each with a tint of its own” (172). This is similarly suggestive of the individuality that the plant and plant parts carry. Plants are, in this sense, unique and differentiated from one another in terms of their behaviors. Their liberation can also be seen in their tendencies of flourishing in divergent places. An orchid family, for instance, has numerous individual species within, each of whom represent distinctive traits in their ways of growing. As Burroughs exemplifies in *A Year in the Fields*, each species bloom at different intervals of time. In addition, mentioning the purple fringed orchis, Burroughs finds out that while some of them show up in “swampy meadows and in marshy, grassy openings in the woods,” some others –showy orchis- are found in “low, damp places in the woods” (132-3). Violets – white violet, Canada violet, blue violet- are another example Burroughs presents that have the similar tendency of growing out of places that have contradictory traits, such as being wet and low or being in high and dry cold altitudes (133). Liberation of plants is also inherent in their distinctive behaviors such as being “more intensely local, more fastidious and idiosyncratic,” according to John Burroughs (*A Year* 133). Bearing fragrance stands out as a behavior in plants that portrays their abovementioned traits. They are “local,” because their locality is affective in the production of fragrance. They are “fastidious,” as can be seen in their fragrance defined as being “shy and limited in its range” (133). Lastly, they are “idiosyncratic,” since they act and behave individually which enables a diversity in their expression of life and growth.

Similarly, in addition to the traits above, some plants stand out solitarily in nature. As Burroughs suggests, the cypripedium is quite “fastidious and exclusive” (*A Year* 133). It is frequently located in high and dry spots in the woods. Such position allows the plant to have privacy and exclusion. They maintain solitude in nature by being positioned in grounds that are not easily reached. Solitude, as a term, applies to vegetal life, as well. As Marder suggests in *Through Vegetal Being*, solitude is related to one’s being “skilled at

being with oneself” and the ability of “living with oneself” (198). This relates back to Thoreau’s claim of “solitary dwelling” which highlights the importance of one’s learning to live with oneself (*Thoreau’s Walden* 61). Burroughs attests that the cypripedium “does not go in herds like the commoner plants, but affects privacy and solitude” (*A Year* 133). This shows that the plant is skilled to exist by itself solitarily. Therefore, compared to other commonly found plants which grow collectively in huge numbers, this species requires solitude and privacy. Thus, one cannot encounter a crowded group of cypripedium. This behavior evinces the plant’s idiosyncrasy and exclusiveness, which supports its liberation. Burroughs suggests that this encounter seems as if “intruding upon some very private and exclusive company” (*A Year* 134). In some cases, the solitude seems as a behavior that the plant performs when it is in need of seclusion. Even though the plant may reside in a crowded vicinity, it may intentionally fall to seclusion. Such an example is provided by Burroughs in which he observes a dandelion which lowers its head during the time of maturing its seed. This seems as if the flower “retires from society ... and meditates in seclusion” (189; *Signs and Seasons* 9). This seclusion is intentional and happens for a reason which is to protect its immature seeds from early dissemination.

3.1.2. Physical Play

The concept of growth or flourishing of life is another point that is not static or mechanical. It is a part of vegetal existence. According to mainstream Western thought, the area of existentiality is “usually reserved for human beings alone” (Marder, *Plant-Thinking* 90). However, “Vegetal existentiality” is traceable through the plant’s freedom. The factor of chance is a prevalent term in the plant’s existence. It can be said that the plant is “extracted from the universality of self-producing life,” highlighting the discontinuity and liberation of plants (Marder, *Plant-Thinking* 143). This facet of the plant, situated “On the brink of non-being, passing or withering away,” denotes the essence of the vegetal being, itself (143). This phenomenon is explained as “play,” which falls in line with Kant’s aesthetics (144). Play, in essence, “excuses one from the demands of reason and the concerns for one’s self-preservation” (144). The concept extends appropriately to include other-than-human beings, especially plants. Marder borrows “physical play” from Schiller who explains the term on the case of the tree. Schiller states that “The tree puts forth innumerable buds which perish without developing, and stretches

out for nourishment many more roots, branches, and leaves than are used for the maintenance of itself and its species. What the tree returns from its lavish profusion unused and unenjoyed to the kingdom of the elements, the living creature may squander in joyous movements” (Schiller, *On the Aesthetic Education of Man* 133). In this case, the buds that the tree produces do not end in a sensible or an expected outcome. The effort might be in vain and inconclusive. This is indicative of the plant’s freedom not to reach a desired end, since “The play of Nature has no fixed programme” (Burroughs, *Field and Study* 214). This freedom can be explained as the plant being free from reproductive expectancies. By doing so, the plant manages to be “abound in possibilities irreducible to their reproductive potency” (Marder, *Plant-Thinking* 145). Thus, as Burroughs also suggests, plants defy many of the positive expectancies by their “ceaseless experiments in every possible direction” (*A Year* 195). This is, in Burroughs’ terms, a “wholesale method” of vegetation by throwing out ceaseless possibilities and potentialities (*Field and Study* 37).

The plant’s representation in freedom and chance is shown in the journey of the seed. It is “entrusted to the randomness of chance and the externality of its medium (the earth);” therefore, the seed “contains the possibility, indicative of its freedom, of being wasted, spread, spent for nothing” (Marder, *Plant-Thinking* 89). The potentialities and possibilities are lying dormant in the soil. As Burroughs suggests, “The apple and the peach and the wheat and the corn exist in the soil potentially” (*Under the Maples* 188). It is a mode of vegetal behavior which entails an “existential thrownness” that follows on an absurd pattern without reaching a sensible goal (Marder, “The Place of Plants” 191). Accordingly, Burroughs also states that plants are in a tendency of “putting forth ... in every direction” (*A Year* 194). It is similar to “impulses” which move towards “all directions” (Burroughs, *Under the Maples* 213). As Marder further suggests, “The initial throw of the seed may be quite random. It is a throw of the dice par excellence, as it is far from certain that the seed would land on the right kind of soil, would have enough moisture to germinate, would be subject to optimal temperatures needed for growth” (“The Place of Plants” 191). Burroughs links the randomness of vegetal thrownness to the plant’s “excesses and ... shortcomings” which are the usual phases of a plant’s life (*Field and Study* 309). Burroughs also proves that plants’ putting themselves forth and throwing from themselves show “failure of some ... ventures and the success of others,”

as can be seen in the “seed falling upon the barren places just the same as upon the fertile” (*A Year 194, Under the Maples* 213). External stimulus, such as the wind, also “carries the seeds in all directions, and they fall everywhere, just as it happens, on the hills as well as in the ditches” (Burroughs, *Field and Study* 37). This perpetual thrownness does not always finalize in a flourishing of the plant. This phase, from the Darwinian perspective, can also be called as the “natural sifting and distributing process” (Burroughs, *Under the Maples* 203). In this, waters, winds, and animals play a part for the distribution of seeds to occur. Still, the whole process relies on the factor of chance, since they may not thrive or become realized unless “they are so lucky” that they “chance to fall on suitable ground” (203). A similar behavior can also be seen in the flower which “releases pollen or a rotting fruit that exposes its seeds,” which indicates that the plant “delivers itself over to chance, literally throwing itself (away), potentially wasting itself” (Marder, *Plant-Thinking* 134). Therefore, it can be said that the behavior to throw itself or dissemination or falling of certain parts can be seen in many parts of the plant.

In vegetal life, due to “*The substantive emergence and dissolution of a plant*” which brings forth “discontinuous continuity of time in a seed,” the line where life begins or ends is blurry (Marder, “The Weirdness of Being in Time” 341). Therefore, “future growth is not assured,” which is to say that “the seed may never germinate or it may do so after an indefinite delay” (341). Therefore, it can be said that plants pursue their life “at intervals” and their growth patterns “are irregular” (Burroughs, *Field and Study* 214). A similar point is seen in the plant’s pollen production. The pollen is released freely, leaving it to the “mercy of wind or insects ... without any guarantee of success” (Marder, “The Place of Plants” 191). It is considered as a mode of plant behavior which produces in abundance without reaching a goal or a destination. In such cases of the plant losing a great deal from itself, it is noted that the plant “throws only a part of itself, the part that is perhaps inessential” (191). Therefore, it does not die or wither due to releasing from itself. It leaves the dispensable parts that the plant can further produce repetitively. Abundancy of dormant seeds in the soil is an example to this. Without a guarantee of reaching germination, the seeds lay down latent in the soil. As Marder suggests the seed may never sprout or it may achieve so after a certain time of time (“The Weirdness of Being in Time” 341). This shows that the time may be ineffective for the flourishing of the plant. Time does not negatively exhaust the seed or kills it; rather, the seed defies the abiding time

and sprouts at an irrelevant time. Such an example is provided by Burroughs in *A Year in the Fields* that stramonium germinates after a long period of time, even though “it had not been seen in that locality for thirty years” (138). This shows a certain delay in the seed to germinate and emerge as a plant even after it has been thought never to reappear on that vicinity.

“Physical play,” as a concept, do not fall into a negative side of the plant life. Burroughs resembles this phenomenon to a play that nature plays in which the “Only power to win in the competition of life counts with” natural life, itself (*Under the Maples* 181). In this play, “the stakes” are not predetermined or predictable (181). Rather, the “physical play” is considered as “‘nature playing,’ wasting itself, not living upto its potential but reveling in a profusion of non-realizable possibilities” (Marder, *Plant-Thinking* 145). These possibilities stand out as a variety of seeds hiding under the ground. For this reason, the land seems as “a storehouse of seeds” (Burroughs, *A Year* 137). John Burroughs sees this as a part of nature to keep all the possibilities available, in which not all come to a realization. He resembles it to the game of “heads and tails” in which one wins, while the other loses by mere chance (*Under the Maples* 181). Burroughs states that there is “layer upon layer of seeds in the soil ... and the wonder is that each kind lies dormant until it is wanted” (*A Year* 137). From these lines, it can be asserted that physical play remains as a wonder since some seeds spring up, while some others remain inactive and latent under the ground. Burroughs physically tests this theory by unearthing certain seeds from the ground. Unrealized possibilities are numerous and harbor a variety of species, as Burroughs finds out. He suggests that “If I uncover the earth in any of my fields, ragweed and pigweed spring up; if these are destroyed, harvest grass, or quack grass, or purslane appears. The spade or plow that turns these under is sure to turn up some other variety, as chickweed, sheep-sorrel, or goose-foot” (137). These variables showcase the possibilities that may come out from the abundance of dormant seeds in the soil. The chance or physical play is existent in this fact since whether the seeds will come to realization is not certain, along with when they will come out or which of the species will appear. As Burroughs suggests, “in the battle of life, the chances are that the few will fall while many escape” (*Field and Study* 315). This is to say that while some may be successful to flourish, the rest may be lost in the game. Certain stimuli may be affective in the play of plants. As Burroughs exemplifies the stimuli as, “life working through the laws of physics

and chemistry,” which eventually, “draws their materials out and builds up the perfect fruit” (*Under the Maples* 188). In addition, lack of stimuli may be one of the reasons for the possibility not to achieve a realization, while the stamp of certain stimuli may perform as an initiating power. Harsh changes, such as fire, may be considered as a stimulator that “tickles them [the dormant seeds] until they awake” (Burroughs, *A Year* 137). Or it may be because some species of plants “spread both by seed and runners,” which is affective in coming up with better chances, whereas some others “are kept in check because certain localities are unfavorable to them” (*Under the Maples* 181).

Physical play, in addition to reflecting the free choice of plants to come to a realization or not, also reflects that there is an intelligent side to this behavior of chance. This can be seen in the germination of other species in the spaces where pines no longer appear, as John Burroughs suggests (*Signs and Seasons* 52). The acorns of chestnut and oak are hidden in various spots under the soil. This results from another behavior pattern by the plants’ other, which are jays, chipmunks or crows (Burroughs, *Field and Study* 143). When they collect and store these acorns to be utilized for future, the location of the acorns where they are hidden are mostly forgotten. This, according to Burroughs, is the reason for the presence of “the oak and chestnut trees that spring up where a pine forest has been cleared from the ground” (*Signs and Seasons* 52). The intelligent choice lies in the correct timing for these hidden and dormant acorns to sprout. They do not grow into maturity until the overruling pine is cleared from the area. Only when “the pine goes out the birch comes in” (99). As Burroughs illustrates these acorns accomplish to “germinate and remain small, insignificant shoots until the pine is cut away and they have a chance” (52). Unless such convenient conditions are secured, these little sprouts remain the same until they find their time. Burroughs believes that this is a common behavior in these plants since in “almost any pine wood these baby oaks may be seen scattered here and there (52-3).

3.2. PLANT INTELLIGENCE

In the discourses about intelligence, plants have been mostly left out, because of the dominion of anthropocentric views over the concept. Within the Western perspectives, as Burroughs also criticizes in *Leaf and Tendril*, since “the animal is nearer to us than the vegetable, so is animal intelligence nearer akin to our own than plant intelligence”

(“Animal and Plant Intelligence,” *Leaf and Tendril* 172). However, the concept of intelligence is applicable to the plants, as well. Nietzsche, in his *Will to Power*, states that in order to create a new perspective for intelligence that de-centers the human, “one should start with the ‘sagacity’ of plants” (349). This stance entails a dismissal of the norms of “truth” and “knowledge,” which are obtained and validated through the brain and central nervous system (Marder, *Plant-Thinking* 151-2). This is because intelligence is not necessarily “produced by vast assemblies of animal neurons” (Paco). In order to define the “sagacity” of plants, de-centering of the human and setting aside metaphysical connotations on the plant life are essential. When it is assured, vegetal intelligence can be truly discussed. As species of the humankind, as Burroughs suggests, “Our prudence, our economies, our selection, our short cuts, find no parallel” in the considerations of vegetal life (*Field and Study* 132). In vegetation, intelligent behavior is considered as being “fluid, receptive, dispersed, non-oppositional, non-representational, immanent, and material-practical” (Marder, *Plant-Thinking* 152). John Burroughs also includes tenets of vegetal intelligence in his works that are utilized in this study, as well as in an additional piece titled “Animal and Plant Intelligence,” which is published in his *Leaf and Tendril*.

Plants are dispersed beings, which carry vitality and directedness towards the other on various parts, all at once. Therefore, plant intelligence is not limited to or reserved for one single part which can either be the root or the extend of its body (Marder, *Plant-Thinking* 152). As Marder suggests, intelligence and intelligent behavior in the plant is “decentralized” and “non-hierarchal” (“Plant Intentionality” 1370). The term “plant intelligence” was put forth and advocated by Anthony Trewavas in 2002 (Hall, *Plants as Persons* 143). Trewavas bases the term on the description of intelligence by Stenhouse, which suggests that it is a behavior that is “adaptively variable within the lifetime of the individual” (Stenhouse 31). Stenhouse derives this description from the intelligence of animals. However, adaptive qualities are present in the plant life, as well. Trewavas states that “The more intelligent the organism, the greater the degree of individual adaptively variable behavior” (“Aspects of Plant Intelligence” 1). The plant life depends on their skill “to integrate many different sources of important information – about light quality and direction ... and use it to control their patterns of growth and development (Calvo). Therefore, intelligence appears as way to cope and keep up with the variables that come in the plants’ way. John Burroughs also contemplates on the intelligence that may be

encrypted in plants. He describes the plant intelligence as “the wisdom that grows on trees,” in addition to being “fragrant in the flowers” (*Field and Study* 252). He also provides a perception that parallels to the ideas put forth by Trewavas and Stenhouse. Burroughs perceives the vegetal intelligence as being “outside of man,” which suitably “consists largely in adapting a means to an end” (*Field and Study* 133). In *A Year in the Fields*, Burroughs suggests that “Place a tree or plant in an unusual position, and it will prove itself equal to the occasion, and behave in an unusual manner; it will show original resources; it will seem to try intelligently to master the difficulties” (192; *Signs and Seasons* 11). As these lines prove, Burroughs also believes that the adaptive skills that plants maintain when encountering challenging or other-than-usual conditions are indicative of plant intelligence. These skills of adapting entail that plants “have greater versatility, and more resources,” since they can portray adaptational qualities and perform relative behaviors (Burroughs, *Signs and Seasons* 40). Even big trees, such as the pine, show such skills that prove its tendency of perpetual growth (40). The skills that signal intelligence in plants are shown through the facts that “they have ingenious devices for disseminating their seed and for securing cross-fertilization; that there is competition among them and among the trees for the light and air and moisture and the fertility of the soil; that they protect themselves against the sun and the cold, and against the wet” (Burroughs, *Field and Study* 122).

Since the word “intelligence” is an umbrella term that includes intelligent behavior of other-than-human organisms, plant behavior stemming from their intelligence is also added to extent of the term. Plant behavior is defined as “the response to internal and external signals” by Silvertown and Gordon in 1989 (Trewavas, “Aspects of Plant Intelligence” 1). This response transpires as “growth and development phenomena, such as de-etiolation, flower induction, wind sway response, regeneration, induced bud break/germination, tropic bending, etc.” (1). Therefore, such acts that happen throughout a plant’s life prove that plant intelligence is an “adaptively variable growth and development during the lifetime of the individual” (1). In accordance, basing his stance on the adaptability of the plant to suit itself in more favorable conditions, Burroughs poses the question: “Have trees more wit than is dreamed of in our philosophy?” (“Animal and Plant Intelligence,” *Leaf and Tendril* 175). There lies a certain intelligent choice behind the random throw of the seed. Even though the seeds of plants are thrown in a blind

manner by the wind, which “drops them upon all spots,” each type of seeds “in due time finds its proper habitat, the highly specialized, such as those of the marsh plants, hitting their marks as surely as do others” (Burroughs, *Under the Maples* 214). Plant intelligence is also evinced in the plant’s behavioral reactions to the “minute changes in temperature, humidity gradients” by orienting itself appropriately according to the changes in the local environment (Marder, “Plant Intentionality” 1368). The growth of plants is also accelerated at times by certain plants, themselves. John Burroughs exemplifies that “If amaranth, or abutilon, or burdock gets a late start, it makes great haste to develop its seed ... turns all its energies into keeping up the succession of the species” (*A Year* 138-9). This shows that plants understand the passage of time and their position within that time. For this, if they follow at a later pace than the other species, they accelerate themselves to catch up with a similar cycle as the others. In that sense, they are capable of controlling their growth patterns, which is a sign of their intelligent behavior. Various appearances of vegetation, whether in large numbers or in solitude; in a certain posture or being small; in coming into existence or not; show that “there is an intelligence ... an all-pervasive mind that gives rise to the vital order,” as can be seen in the life of vegetation (*Field and Study* 315).

3.2.1. Intelligent Behavior in Plants

In the considerations of plant intelligence, a unique perception is applied since the traditional perceptions of plant behavior are more likely to be “metaphoric” because of the fact that “the basis of any behavior is assumed to lie exclusively in animal conduct” (Marder, “Plant Intentionality” 1365). Marder highlights that this approach, basing it on the research by Trewavas and Warwick, requires “judging intelligent behavior in non-human organisms based on the capacities of the organism in question” (1365). Therefore, plant intelligence is determined by the capacities that the plant owns, which are either on environmental, organismal, or cellular level. Such capacities that reflects intelligence in plants are, as Burroughs suggests, the vegetation’s “foresight” (*A Year* 189; *Signs and Seasons* 9).

Movement is one of the qualities of intelligence, which hinders the plant’s position in the concept of intelligence by the mainstream traditional notions. Traditional thinking of plants perceives plants as still and inactive organisms, so does the term “vegetable” used

for “unthinking or brain-dead human beings” (Trewavas, “Aspects of Plant Intelligence” 1). However, vegetal movement has already been discussed to be existent in the earlier parts of this study regarding the issue. As John Burroughs also suggests, the intelligence of plants is shown as “action and not reflection” (*Field and Study* 135, 204). Their intelligence, in accordance, transpires as “action, and not thought” (*Under the Maples* 199). The action happens through ceaseless growth and production where the plant “does not pause to cogitate and ask the reason why” (*Field and Study* 135). Rather, they ceaselessly grow to reach the skies “by regular steps” (*Signs and Seasons* 40). Certain movements, especially, are indicative of intelligent behavior of plants. John Burroughs provides an example of dandelion flower for such an instant. As it is observed, “dandelion lowers itself after flowering, and lies close to the ground while it is maturing its seed, and then rises up ... after it lifts itself up again the stalk begins anew to grow ... keeping just above the grass till the fruit is ripened” (*A Year* 189; *Signs and Seasons* 9). According to Burroughs, this is an intentional and intelligent behavior that the plant presents. The intelligence or sagacity lies in the flower’s keeping its head down until the its seeds reach maturity. The intentional positioning of the head downwards is for the cause of protecting the seeds and prevent them from scattering before they mature. After the maturity is secured for the flower’s seeds, then the stalk begins to grow and gain certain heights. It is supposed to grow higher than the grass or other weeds around the vicinity. This way, the seed can travel and get scattered through the help of the wind, without the danger of becoming stuck in between the neighboring vegetation. These certain instances of movement that follow on a timeline are, as Burroughs believes, “a curious instance of foresight in a weed” (*A Year* 189; *Signs and Seasons* 9).

Vegetal movement initiated by growth signals consciousness or intentionality which is an intelligent behavior in plants. As Marder defines, “To be conscious is to intend something, that is to say, to be directed toward the intended object” (“Plant Intentionality” 1367). Therefore, plants perform a conscious behavior as can be seen in their “intentionality,” which surfaces as “the movement of growth, directed toward the optimal patches of nutrient-rich soil and sources of light” (1367). Marder believes that there is a relation between the intelligence and the directedness of plants. From Husserl’s thoughts on the topic, Marder suggests, “To think about consciousness is to think about directedness-toward ... When we’re conscious of something, we’re directed toward that thing of which

we're conscious" ("Our Future is Vegetal" 68). This applies to plants "extensionally," which is to say that their intentions transpire through their "growth-towards," which is indicative of the "physicalization of consciousness and spatialization of intentionality" (68). John Burroughs also captures plants' intending toward their other, such as the minerals in the air and the soil. This inclination is carried out by the plant's "vital chemistry," which is pivotal in acquiring the resources that are essential for vegetal growth (*Field and Study* 204).

Multi-directionality of vegetal movement also entails an intelligent behavior encrypted in plant life. Initially, the plant begins by following one direction downwards, which goes on until the first root holds the soil. After that, "the movement of growth is bifurcated," which is to say that the movement "proceeds in two directions at once, stretching up and down simultaneously" (Marder, "The Place of Plants" 190). This is due to vegetal sensitivity towards gravity. The intelligence lies within the plant's power of "Directional gravity sensing in gravitropism" which is crucial in enabling the plant "to discern the difference between what is 'up' and what is 'down'" (190). Marder believes that plants carry on a "meaningful grid" by following a course that splits into two opposite ways ("The Place of Plants" 190; "Plant Intentionality" 1367). Their capacity for sensing gravity allows them to "discern the difference between what is 'up' and what is 'down'" ("Plant Intentionality" 1367). Burroughs also acknowledges the plant's sensitivity in regards to gravity. He attests that "the roots of a tree always tend downward, as the branches go upward" (*Field and Study* 37). This form of sensitivity shows that the plant knows the directions that it follows in accordance with gravity. Additionally, the growth starts to take pace in the directions that are horizontal or vertical depending on the instance. Burroughs gives an example of the strawberry vines that send out runners navigating through various directions. These runners act as roots which look for suitable spots to go down under the soil. Through this journey, they go "through all the motions of taking root" and their rootlets attempt to reach out to the soil with their pointed tips (*Under the Maples* 212). Another similar instance can be seen in the sap of the tree which navigates itself through the trunk. As Burroughs suggests, "the sap, charged with nourishment, flows down from the top to the roots. In the spring it evidently flows upward, seeking the air through the leaves" (*Under the Maples* 6). This shows that the sap, when it is mature with nutrition, moves down; and, it moves upward when in search

for sunlight to be nutrition-wise wealthy. This proves that the plant, within itself, navigates though the gravity knowing the directions of up and down. Resembling it to “a kind of double circulation,” Burroughs states that “the crude sap always flows upward, while the nutritive sap flows downward (6-7).

Another point that proves vegetal intelligence is the fact that they create “cognitive maps” which enables them to “gather information about ... their environment (Marder, “The Place of Plants” 190). Marder connects this notion to the plant’s capacity for proliferation. Plants grow and they flourish in the place that they are rooted. They sprawl and expand in great masses by taking up a huge space. These extensions as can be seen in their branches reaching out to further spots are “not only to capture the greatest possible amount of solar energy, but also to get the most multifaceted view of the surroundings imaginable” (190). Through this ability, they create a map via using their “green antennae,” which are made of their leaves and branches (Marder, “The Place of Plants” 190). This is a method to keep track of the environment and variables that might happen (Marder, “Plant Intentionality” 1367). As Calvo also suggests in *Planta Sapiens*, the roots of plants “spread the plant’s reach far from the main stem, collecting information over space and time about the living and non-living environment” to make it possible for the plant to decide and “allow the plant to make the most of how it grows and uses its resources” (Calvo). Burroughs supports this claim that “the plant or tree sends its roots in all directions” to find out the necessary elements in the soil for their survival (“Animal and Plant Intelligence,” *Leaf and Tendril* 173). This expansion, similar to what Calvo suggests above, enables the plant to decipher the quality sources. In accordance, Burroughs claims that “Both plant and tree know a good thing when they find it,” which is facilitated by their expansion and multiplication (173). An example to the cognitive maps that the plants create can be through the journey of the strawberry vines that send their runners to the outer world, as Burroughs presents in *Under the Maples*. They navigate through the spaces and soils where they would send below their roots. Their “maps” and useful spots can be seen in the places where the pointed rootlets tips are directed towards the soil (*Under the Maples* 212-3). These form of maps that the plant makes are indicative of their wits and sagacity. Burroughs sees the vegetal life as “All-Seeing” which “has no need of our specialized vision” (214). Through the maps that the plants create, they navigate through the locations and directions they wish to extend to.

Peculiarly harsh or stimulating conditions are expected for plant intelligence to be surfaced. Mild conditions, such as the ones that are provided in green houses, are not where plant intelligence can be detected, according to Trewavas (“Mindless Mastery” 841). As he suggests, “Challenging environmental circumstances are required to elicit intelligent responses by any organism;” for that reason, “Imaginative construction of situations in which plant choice and intention can be tested” prove that plants perform intelligent behavior by their plasticity and adaptive skills (“Mindless Mastery” 841). As John Burroughs also suggests, “The harder the struggle, the more their intelligence,” which applies to the vegetal life, as well (*Under the Maples* 157). When the “struggle for existence has been sharp and protracted,” especially in the lives of plants, they become “more hardy and prolific,” which enables the intelligence to surface (Burroughs, *A Year* 153). Cactus, for instance, is one of the plants that shows certain qualities as aroused by its adaptive skills. As Burroughs suggests, “in a desert mood; heat and drought appear to be the exciting causes. The scarcity of water seems to stimulate” the cactus to store water within itself (*Under the Maples* 143). The plasticity of the plants, especially in terms of the cactus, shows that these plants employ certain qualities in order to protect themselves and adapt to their environment. From the cactus example, it can be inferred that they “carry formidable weapons in the shape of spines and thorns, but the desert conditions where they are found, heat and aridity, are no doubt their primary cause” (145).

Even relatively difficult positions for the plant to hold itself together creates certain intelligent acts in the plant to protect itself. John Burroughs provides such an example in *A Year in the Fields*, by recalling a yellow pine that he has found (193). He observes that the tree is situated on the edge of a hill which may prove lethal for the tree while it is on the brink of a successful growth. For this reason, in order to “make its position more secure, it has thrown out a large root at right angles with its stem directly into the bank above it, which acts as a stay or guy-rope” (193). This instance, for Burroughs, seems as “positively the best thing the tree could do” (193). This intentional movement or the choice that the plant has taken shows that there is an intelligent motive behind. Similarly, in *Field and Study*, Burroughs finds out that birch trees also have a general tendency of growing on rocks and rocky surfaces (36). The places where they send down their roots show that they discern where to send their roots, which reflects a certain kind of “wit” (37). They make sensible choices which are suitable for their survival. This ability stems

from their adaptive skills which prove that plants “have greater versatility, and more resources,” since they can portray adaptational qualities and perform relative behaviors (Burroughs, *Signs and Seasons* 40).

Plants’ attentiveness to their surrounding environment, as well, transpires as intelligent behavior in plants. This can be observed in certain behavior or movement that the plant performs. As Trewavas exemplifies,

The growing shoot can sense its nearest competitive neighbours using near-infrared light, predict the consequences of their activities, and if necessary take avoiding action. The shape, growth and direction of the stem are altered to maintain an optimal position relative to sunlight; leaf positions are adjusted to optimize light collection. When competitive neighbours approach the stilt palm, the entire plant simply moves away by differential growth of the prop roots supporting the stem. (“Mindless Mastery” 841)

This mode of adjusting itself shows that the plant acts in ways that are fruitful and meaningful for its growth. The plant performs an intelligent behavior by positioning its parts and translate the original source into its favor. Such acts are not mechanical or systematical. They are “more complex and calculated than a reflex response,” as Calvo suggests in *Planta Sapiens*. It is evident because the plant does not pursue the same behavior when the stimulus is removed. Such behavior is also indicative of the plant’s “involuntary memory” (Marder, *Plant-Thinking* 155). Marder explains plant memory as follows;

To say that vegetal beings possess memory is to claim that they have a past, which they bear in their extended being and which they may access at any given moment, or more simply, it is to assert that they are temporal beings through and through ... Vegetal memory arises at the site of material inscription on the body of the plant and contributes to the register of physical stimuli (touch, exposure to light or darkness, etc.) that, having already affected the plant, may be retrieved after a delay, when the actual stimulus is no longer present. (*Plant-Thinking* 155)

Marder further clarifies that while human memory produces an image, plant memory remains as “imageless” (155). However, without the necessity of an image, the existence of the external stimuli is remembered uniquely by the plant. Instead of an image, the memory is stored in the body of the plant. Another scientific example to this is provided by Marder, suggesting that “Barley leaves unroll if they are exposed to red light, as long as they contain calcium. If, however, calcium is removed from the plant at the moment of exposure and added up to four hours after the exposure, the same effect (the unrolling of the leaves) takes place without the reintroduction of red light” (155). This explains that

even though the element is missing from the experience that the plant undergoes, it can still fulfill the same result since the memory of the element is inscribed in the plant's body. Another part of memory of the plant can be considered as the plant's capability of bringing back the same feature at time of flowering in its cycle of life. In *A Year in the Fields*, John Burroughs exemplifies it by basing it on the fragrance of the plants. Certain families or individuals of the hepatica release a fragrance which may not be existent in others of the same family. Burroughs mentions that this fragrance is "constant," which is to say that, "the plant which bears sweet-scented flowers this year will bear them next" (51). This phenomenon means that the quality of the fragrance is stored within the body of the plant. When the plant completes one cycle of its life time, it brings back the same feature in the following cycle. Therefore, it can be said that the fragrance is encrypted in the body of the plant and stored as a memory. When the appropriate conditions are assured, the plant flowers back with the same fragrance (51). Similarly, repetition of the similar external qualities, through the passage of time, shows the plant's intelligent skill of memory. In their cycles of life, they follow the same patterns, such as the growth of trees' foliage and the changing colors. Burroughs suggests that some maple trees' foliage reach maturity late, while some others accomplish the same quality earlier. They also carry different colors and shades of leaves during the process. The peculiar trait is that "each tree held to the same characteristics, year after year" (*A Year* 172). This shows that this pattern is also stored in the plant's memory to be repeated the next year.

3.2.2. Vegetal Sensitivity

In Western Philosophy, vegetal life has been disregarded in terms of sensitivity and intellect. The Aristotelian approach excluded the plants from the "possession of intellect and mind" (Hall, *Plants as Persons* 24). On the contrary to this belief, it has been scientifically shown that plants "display sensitive, purposeful, volitional behavior" that can be traced in "nastic movements and tropic growth responses" (12). However, the Western thought intentionally acts by positioning plants in a state in which they are "inactive, mute, and insensitive" (25). In this way, Aristotelian system of thought "violates the autonomy of plants ... strips them of any autonomy or subjectivity" for the purpose of appropriating plants instrumentally for their beneficence for human use (25).

The concept of vegetal sensitivity has been a subject that has been studied by scientists across the globe. Names such as Charles Darwin, Julius von Sachs and Asa Gray were among the scientists who caught an interest in the subject. Even though plant movements have been looked into and have been documented starting from the sixteenth century, plant sensitivity did not date back to such deep timeline (Webster 5). In Sachs' *History of Botany*, it was noted that the subject did not emerge earlier than the nineteenth century. However, recent study shows that plant sensitivity was, indeed, among the topics that were studied by certain biologists towards the end of the eighteenth century. Charles Darwin's grandfather, Erasmus Darwin's *Phytologia: or, The Philosophy of Agriculture and Gardening* published in 1800 and *The Botanic Garden* in 1799 are examples to the research that focus on the subject of plant sensitivity (Webster 5). Studies on vegetal movement encouraged further research on vegetal sensitivity since the former is facilitated by the latter. Therefore, it proves that research in the seventeenth century has also been overlooked and underestimated by the notion that only vegetal movement is at the center of interest (5).

In 1824, Henri Dutrochet put forth the idea that vegetal movement activated by vegetal sensitivity is not a mechanical response. Rather, it was highlighted that "the growth responses of plants to light was a *behavioral response*, not simply mechanical movement" (Hall, *Plants as Persons* 138, Whippo and Hangarter 1111). Albert Frank contributed to the same area by contemplating on plants' reaction to sunlight and natural forces such as gravity. The sensation towards gravity is also captured by Burroughs, in which "the roots of a tree always tend downward, as the branches go upward" (*Field and Study* 37). Albert Frank suggested that plants' movements that arise from their growth are "active, coordinated responses to sensed stimuli" (Hall, *Plants as Persons* 138). By Von Wiesner, in 1878, some experiments were carried out in order to prove this fact. The result showed that the plant's inclination towards the light did not stop even though the original source was removed. This suggests that this action is an intended biological response created by the plant. Therefore, since the process has started, it does not turn off automatically as if they are the actions of "an automaton" (Hall, *Plants as Persons* 138). Within "the sensory repertoire of plants," there lies a variety of sensitivities (143). Plants are sensitive to "at least fifteen environmental factors, including light, heat, gravity, moisture, etc.," which, in return, results in a vegetal reaction or response that is not comparable to that of the

humankind (Marder, “The Place of Plants” 186; Trewavas, “Mindless Mastery” 841). Trewavas draws a parallel between the plants’ being sessile and their sensitiveness. He states that “Because plants are sessile organisms, they may perceive more environmental signals and with greater sensitivity and discrimination than the roaming animal” (Trewavas, “What is Plant Behavior?” 607). This shows that the plant’s connectedness to the soil makes it a more sensitive organism because of their elevated perception stemming from their rootedness. Burroughs explains this phenomenon through the birch trees that usually settle on a rock at the initiation of their life. Its sensitivity through the roots lets the tree ascertain the “moss and moisture” towards which the tree directs its roots (“Animal and Plant Intelligence,” *Leaf and Tendril* 174). Thus, the plant finds the soil and becomes settled in the soil with brand new roots and rootlets (174).

Vegetal sensitivity can be explained by plants’ inclination towards the sense of touching. “Touch-sensitive” plants become affected and influenced by the environmental changes around (Hall, *Plants as Persons* 52). An example to this plant is *Mimosa pudica*, along with its relative species, which is considered to be a “sensitive plant” (Webster 6; Hall, *Plants as Persons* 52). It performs a reaction when affected by certain external stimuli. The reaction turns out to be closing its leaves or bowing of its stalk when faced with cold (Webster 6; Hall, *Plants as Persons* 52). This fact has fascinated the botanists of the time of its recognition as a sensitive plant around the seventeenth century. For *Mimosa pudica*, it was documented by a biologist that the species “hath a propertie, which ... will seem strange in the way of Philosophers, who have denied every part of sense to my plant; yet this certainly seemth to have feeling” (qtd. in Webster 8). Marder, similarly, mentions *Mimosa pudica*, which is also called as “touch-me-not,” in his article “The Place of Plants” (189). He highlights its quick response to stimuli by closing its leaves, along with another species, Venus flytrap, which also reacts to frequent stimulus at least twice in a minute by closing its lobes (“The Place of Plants” 189).

Aristotle and Theophrastus’s thoughts on vegetal sensitivity have dominated the philosophical grounds for the subject. Even though Aristotle’s approach stands on the ground that denies “agency, sensitivity, or mentality” for the plant, he still includes a view to the plant life which looks into the influence of external elements on plants (Hall, *Plants as Persons* 25). In *De Anima*, he writes that “It is also clear why it is that plants do not

perceive, though they have a psychic part and are in some way affected by the touch objects. After all they become hot and cold. The reason is that they do not have a means nor such a principle as can receive the forms of the sense objects” (qtd. in Hall, *Plants as Persons* 26). By referring to “hot and cold,” Aristotle underlines the relatedness of vegetal beings to their surrounding environment and accordingly being affected by it. The affect that the plant body produces in response to the outer stimuli is indicative of plants’ perception and sensitivity. However, in failing to pinpoint the reason behind such a reaction, Aristotle falls behind in supporting and encouraging the notion of vegetal sensitivity (26). Zoocentrism wins over *plant-thinking* due to the fact that plants are articulated upon in contrast to the animals. Since plants lack the brain tissue that is prevalent in animals which allows them to “achieve perception,” plants remain in the background due to this lacking (26). It can also be said that this perception of plants that claims that plants do not possess reception and sensitivity is a failed attempt. This is because this thought stems from a “zoological perspective-evaluated using the physiology and capacities of animals,” rather than growing a perspective which looks into plants on their own terms within their own capacities and abilities (26).

Theophrastus contemplated on the plant’s perception which manifests as the skill to be receptive of varying conditions and senses. For Theophrastus, it is not possible to consider living entities “to be devoid of sensory awareness” (Hall, *Plants as Persons* 32). The matter of being perceptive and receptive in terms of receiving senses is indispensable since having this quality is “completive of the living thing” (Priscian 11). This means that plants, which are amongst the living beings, are sensitive to atmospheric conditions. They direct themselves in accordance with their needs, as facilitated by their sensitivity. As John Burroughs exemplifies, one of the most encountered act that signals the plant’s sensitiveness is its inclination towards the sun. Burroughs mentions such species – pistillates¹³ of *Antennaria*– as “sun-worshipers,” because of their facing to the sun and accordingly changing their position in order to get the better exposure (*Field and Study* 211). Another example Burroughs presents about plants is that, “there is competition among them and among the trees for the light and air and moisture and the fertility of the soil,” which indicates that they struggle for reaching the target, which is induced by their

¹³ The pistillate is the female version of a flower, which has female parts; while the male version is called the staminate (Burroughs, *Field and Study* 211).

sensitiveness to outer conditions (*Field and Study* 122). Plant's phototropic behavior towards the sunlight is another crucial point in defining plant sensitivity. With this ability, plants directly get in touch with the sunlight and direct it for the means that are necessary for growth (Hall, *Plants as Persons* 143). In accordance, John Burroughs also cherishes the leaves of tree that are pivotal in achieving a phototropic growth. As he suggests, "When the leaves come, what a transformation, what mobility, what sensitiveness, what expression" they present (Burroughs, *Under the Maples* 2). Their existence is representative of their sensitivity since they engage with their environment through photosynthesis. The leaves turn this connection into nutrition, health and growth for the mother plant. Burroughs describes leaves' connection to the external elements through sensitivity as "Ten thousand delicate veined hands reaching forth and waving a greeting to the air and light, making a union and compact with them, like a wedding ceremony" (2).

John Burroughs captures sensitivity in vegetal life by acknowledging that the plants are capable of sensing the changes in the atmosphere, such as coldness and warmth. The presence of coldness and warmth is crucial for certain plants to accomplish certain steps of their capabilities (Burroughs, *Signs and Seasons* 241). The sap production, for instance, is directly related to the plant's sensitivity of hot and cold. As Burroughs suggests both conditions are equally pivotal in the sugar-making process of maple trees. He states that "As the days and nights get equal, the heat and cold get equal, and the sap mounts" (Burroughs, *Signs and Seasons* 241). Thus, the sap is considered as "the fruit of the equal marriage of the sun and the frost" (241). Coldness is also another sensitivity that plants have which have in direct relation to their growth patterns. For instance, Burroughs exemplifies from the fruit trees –cherries, peaches, apples, and pears– which were affected by the severe weather conditions that resulted in their late blooming (*Field and Study* 14-5). Cold weather, in some cases, is especially lethal to the plant when the plant begins its life in the middle of the season or around the end. In such a case, since the growth of the stalk would coincide with coldness, it would result in the freezing of the plant's body (*A Year* 171). Burroughs suggests that some plants are aware that when they begin late, the upcoming cold weather would be harmful for their health. This shows that there is "a kind of forethought" in certain species, such as the redroot (171). For this reason, especially when such an experience has happened before, these plants are not

observed to begin their cycle of life with a late start. This is indicative of the plant's memory which stores the effect of the cold. It can be said that the plant remembers the cold weather and what kind of effects it has on the plant's body. As a past experience, the incident is stored in the plant, which brings about an outcome of not repeating the same attitude. As Burroughs states, the plant "is killed by the first frost, and hence knows the danger of delay" (*A Year* 171). Therefore, relying on the memory of a past event, the plant does not show the same attitude of late growth. Similarly, the sensitivity induced by the cold or the time turns out as a behavior in plants. Cold weather or the time passage until it is appropriate for the plant is sensed by the plant. For this reason, there occurs certain traits or behaviors that can be observed in the plant's growth patterns.

In addition, Burroughs provides a relatable example to atmospheric sensitivity of plants through the American plane-tree in *A Year in the Fields*. This plant keeps its button-balls "hanging to the parent tree intact till spring," so that they would not fall off easily or quickly before their time (190). As Burroughs further explains, "wind cannot twist them off, nor warm nor wet hasten or retard them" (190). Even the human hand, when meddling with it strongly, fails to break the bond between the stem and the ball. It shows that the plant portrays a "determined" stance in terms of not letting the buttons fall at an earlier period (190). The reason behind this determination is explained as the necessity for the buttons to maintain their dryness until it is appropriate for them to reach the ground. The moist levels in the soil are expected to be ideal for the buttons to break and reveal their seeds. This behavior, along with its underlying reason, shows that plants are sensitive to cold and they are able to predict the time that is suitable for them for the dissemination of their seeds. There is a complexity of conditions that are to be polarized before the American plane-tree lets its buttons to the soil (190). This behavior of keeping the seeds strongly secured in the buttons shows that plants perform intelligent behavior through their sensitivity. Similarly, some species such as the bladder-nut or honey-locust, hold strongly to their fruit in a similar manner that the American plane-tree sticks to its buttons. The reason seems to be the cold that is likely to occur in the winter. The knowledge that "the frost and the perpetual moisture of the ground would rot or kill the germ" is what keeps the species from losing their berries (*A Year* 191). These instances are indicative of the plants' sensitivity that turns into an intelligent behavior through moving or intentionally not moving. Regardless, the physical play of the plants is to be taken into

consideration in such cases. This is because the plants would also scatter their seeds without them reaching fruition. Burroughs suggests that when the seeds of certain species fall to the ground in an unfavorable period, they would “germinate prematurely” (192). He especially observes acorns under oaks, which are abundantly laying on the ground and some are “anchored to the earth by purple sprouts” (192). However, even though they have successfully begun their life as fresh sprout, it does not mean that they would mature strongly. This is because “the winter which follows such untimely growths generally proves fatal to them” (192).

Similarly, Buddhist scholars also perceive plants as sensitive beings. The external conditions, especially the temperature, is profoundly affective in the plant’s growth and life. Sunlight has a positive effect on the plant, while the cold has the opposite. In addition, the quality of the soil in terms of minerals and water is pivotal in a plant’s life. The growth of roots and their direction towards the nutrition, as well as the branches that are influenced by similar external variables, showcase the plant’s possession of “sensing” (Hall, *Plants as Persons* 89). The touching sense is distinguishingly strong in the roots of plants. This quality “enables them to explore, with an animal-like curiosity, their environment in a continual search for water and solutes” (Baluška et al., vi). Marder highlights that the plant’s connectedness to the soil is one of the strong tenets that facilitates a heightened sensitivity in plants. He suggests that the plant’s “rooted mode of being and thinking is characterized by extreme attention to the place and context of growth and, hence, sensitivity that at times exceeds that of animals” (“Plant Intentionality” 1368). John Burroughs, similarly, carries a parallel point of view in terms of the sensitivity of plants through their roots. Highlighting Darwin’s thoughts on the subject, Burroughs states that “rootlets behave as if they had minute brains in their extremities. They feel their way into the soil; they know the elements the plant wants; some select more lime, others more potash, others more magnesia” (*Under the Maples* 5). Through their sensitivity, they direct themselves towards the minerals that are needed specifically for the plant. They feel the availability of resources under the ground and their intake of the nutrition happens in the favor of this purpose. Their sagacity is evident in each plant since “The cells of each seems to know what particular elements they want from the soil” (5). Similarly, the sensitivity towards the desired elements applies to the air-plants, as well. As Burroughs suggests in *Field and Study*, “How curious it is that the

air-plants should be able to get their mineral elements from the air as if this all but impalpable fluid were a soil full of lime and magnesia and silica, and the plant pushed invisible roots into it!" (123). It can be understood from the existentiality of air-plants that, they have sensitivity for elements that become nutritive for their life and growth, in a similar way to rooted plants.

As a result of a certain sensitivity to an external stimulus, plant bodies or parts evidently tend towards a movement. Burroughs also finds out that plants' movements towards certain directions are not mechanical, nor accidental. In *A Year in the Fields*, he observes a hemlock tree that has sent out a very long root towards a lake that is close at hand. This movement of the plant by growing a thick root towards its source shows that it is an intentional act (193). He suggests that "If the shore had lain in the other direction, no doubt at all but the root would have started for the other side" (193). This shows that the plant is capable of sensing the source of water. With that sensitivity, it is able to direct itself and navigate in the soil towards the target. Thus, the sensitivity is not mechanical, as Burroughs suggests. Even if the target is removed or located in a different direction, the plant would incline towards it in the same manner. Marder also likens Darwin's "root-brain hypothesis" to the sensitivity in the root systems of plants ("Plant Intentionality" 1366). Within this theory, it is possible to see the roots as the "'head' of the plant and the green parts as the posterior" (Calvo). Marder suggests that this theory is close to recent developments in theories of plant intelligence and behavior. He states that the root acts as "a brain-like organ, sensitive and capable of navigating the soil in search for resource-rich patches" (Marder, "Plant Intentionality" 1366). Similarly, Burroughs also finds out that roots navigate successfully in the soil towards their desired target (*A Year* 193). They navigate through the soil towards the places which are rich in terms of nutrition and minerals. This may also show that roots act as the brain of the plant.

3.2.3. Plant Attentiveness

Plant attentiveness is another crucial point to be included into the discussion of plant sensitivity. As Marder suggests, in *Through Vegetal Being*, "plants by far exceed animals and human beings in their attentiveness to what is going on around them with regard to the levels of light, heat, moisture, movement, vibration" which proves that "They are constantly in touch with the elements" (155). Their sense of sensitivity enables them to

be attentive to their surrounding environment. This tendency is also traceable through the plant's movements since they "maximize their exposure to sunlight, which they welcome with their leaves" (157). This attentiveness is also called as the plant's "hyper-attention," since each part of the plant "monitors the minutest environmental variations" that surface in their proximity ("Marder, "Plant Intentionality" 1370). The exposure and attentiveness to the sunlight is profound and essential since it promotes their growth and proliferation. Therefore, it can be said that plants are more steady and strongly attached to the elements that they are attentive to. Marder suggests that "Plants grow in contiguity with, not against, their environmental niches" ("The Place of Plants" 190-1). Therefore, the plant growth is in direct relation to its environment where it resides. The plant's attentiveness stems from its directedness towards the other, which is a part of the plant's intentionality. As Marder suggests plants' inclination towards the other can be seen in their "directedness toward light in photosensitivity, directedness toward sources of heat in thermo-sensitivity, as well as toward (or away from) self and other in kin recognition" ("Plant Intentionality" 1368). Burroughs also names this directedness as "the leaning" of plants ("Animal and Plant Intelligence," *Leaf and Tendril* 172). As John Burroughs exemplifies, one of the most encountered act that signals the plant's attentiveness is its inclination towards the sun. Burroughs mentions such species as "sun-worshippers" (*Field and Study* 211). This phenomenon occurs as these sunlight-sensitive species "turn their faces to the east in the morning and follow the sun ... across the sky till they all bend to the west" with the sun down (211). This shows that these plants are "heliotropic," which means that they track the sun throughout the day (Calvo). In that sense, the plant's sensitivity plays an important part since it results in the plant's directedness to the outer world. This behavior as being directed towards certain stimuli also proves that the plant is capable of receiving varied signals. In addition, this is not limited only to receiving the signal on the plant's part. As Marder suggests, plants are also active in "deciding among conflicting signals" which is carried out on a "non-automatic manner" ("Plant Intentionality" 1368).

Plant attentiveness to its surrounding environment results from its plasticity. It means that plants are prone to changes in their environment; thus, they "exhibit adaptive plasticity" within their lifetime of growth (Trewavas, "Aspects of Plant Intelligence" 2). This suggests that during the process of vegetal growth, "instead of a predetermined programme, development was adapted plastically to respond to changing environmental

resources and characteristics” (Trewavas, “Mindless Mastery” 841). Burroughs, in *A Year in the Fields*, touches upon a similar point in which he captures *Nymphaea odorata* which “requires a nicer adjustment of conditions” (134). This adjustment to external variables stems from the plant’s plasticity which creates a change in the plant’s current status. Plant’s plasticity or attentiveness to the surrounding environment influences the external qualities of the plant which can be evinced by the variable forms of roots, bodies, branches, and leaves. As Burroughs exemplifies from the traits of *Antennaria*, their attentiveness transpires as the plants being “alert and active, they bend in the breeze, their long tapering flower-heads take on a tinge of color” (*Field and Study* 211). These effects are not only on the surface, but also on cellular level. Some plants even continuously change their sex due to external forces. The effects on cellular level may also pass through generations to come (Trewavas, “Mindless Mastery” 841). Vegetal plasticity and its adaptive skills to surrounding environment, according to Trewavas, performs as a proof of “plant intelligence” (841). In that sense, it can be inferred that plants are “hetero-affected beings” which are “reliant on something outside of themselves” (*Plant-Thinking* 39). The life of the plant is dependent on various factors such as “the influence of environment, the struggle for existence, and the competitions of life” (Burroughs, *Under the Maples* 168). Plants have their own “struggles and their enemies,” which indicates their reliance and relations on their others, along with “their youth, their maturity, their ripe old age,” which is suggestive of their plasticity (*Field and Study* 122-3). The existence of such variable factors are pivotal in the production of varieties in vegetal life.

Plants’ plasticity, which is their being susceptible to changes in their environment, is also evident in terms of their fragrance. Being scented or not might be affected by a number of reasons. Factors, such as the quality of the soil, density of the moisture, their location and time span as affective in the changing of seasons, might be pivotal in creating a variance in the scent releases of plants (Burroughs, *A Year* 131). One species -primrose-, for example, is known to have a sweet perfume, according to Burroughs. However, he states that he has failed to locate a single one which has the smell (130-1). The aforementioned factors might be at play for this phenomenon, as Burroughs suggests. Still, it can be seen that the freedom of plants and individuality that resists singularity is prevalent in plants’ lives.

Their attentiveness also turns out to be being openly exposed to the surrounding elements. They expose their bodies and parts out in the open so that they are directly accessible by the elements. Plants' "contiguity" with their surrounding environment positions them at the center of their vicinity (Marder, "The Place of Plants" 190). Since they are sessile beings with their roots connected to the soil, they cannot run from dangers, nor they are able to hide themselves in case of any dangerous activity that might break their health. For that reason, they pursue an "ongoing assessment of dangers and challenges" that may come their way (Marder, "The Place of Plants" 191). This openness to dangers also reflects as being "tenacious," and persistent for life and for the continuity of the plant's living state (Burroughs, *A Year* 146). Milkweed is an example to such species which presence their tenacity in the face of threats (146). For this reason, they dig their roots deep and strongly attach to the soil. Even though a plow may come their way, they resist the attack and maintain their position on the land (146). Their attentiveness or plasticity, in this case, act as a way of assimilating themselves in order to protect themselves from the dangers. Leopold's silphium, in "Prairie Birthday" in *A Sand County Almanac*, shows a similar aspect to plants' resistance and strength. Leopold sees the silphium plant as a "personality" due to its strong hold to the land that it is attached to (48). He refers to the plant as having a strong personality by protecting its stature. Its will to live and strong survival instincts are evident in the flower's withstanding against the efforts of extirpation (48). The struggle enables vegetation to be stronger for the future encounters. As Burroughs suggests if the purpose is to "persecute a plant," it backlashes as the plant's effort to "tighten its hold upon life" ("Animal and Plant Intelligence," *Leaf and Tendril* 171). The plant's unique methods and "tools grow sharper in the using. The strength of ... [plant] species is the strength of the obstacles they overcome" (Burroughs, *Under the Maples* 180). Thus, their exterior qualities, as being frequently exposed to outer changes, become sturdier and more resilient.

Plants' attentiveness is the plants tending towards its other. In this tendency, there is no one fixed goal to be reached in a plant's life. Rather, it is multidirectional towards all possibilities, at once. The plant's non-conscious intentionality manifests as "excessively striving toward the other," during which the plant "uncontrollably splits and spills out of itself" (Marder, *Plant-Thinking* 154). Plants attentiveness is told to be the plant's susceptibility to the changes going on around its environment. However, in some cases,

plants are shown to be resisting the stimuli. Such can be seen in the seeds that are in a dormant state in the soil. Burroughs suggests that “The seed lies dormant under the sward, the warmth and the moisture affect it not until other conditions are fulfilled” (*A Year* 139). They resist for an unknown period of time to the existing stimuli, which, indeed, act in favor of a seed to germinate. This resistance to germination appears as a mystery for Burroughs because of the fact that “Germs lie there in the soil and resist the stimulating effect of the sun and the rains for years, and show no sign” (139).

Plants, in their striving and attentiveness towards their others, also physically lean forward to their target. They are capable of directing their roots to the nutrition-wise rich areas in the soil. In one of the instances of Burroughs’ observations, he comes across a hemlock tree that “started one large root ... for the shore” because it has sensed that there is a place that is full of the nutrients that the plant desires (*A Year* 193). In order to reach this “sustenance,” the root grows to stretch a length which is “six or seven feet long” (193). Such acts of plant attentiveness show that they know the way to follow. As Burroughs also suggests the seeds of the plants also show a certain kind of intelligent behavior in their tending for dissemination. In *Field and Study*, Burroughs states that “winged seeds always find their proper habitat, as if they had eyes to see the way” (37). This stems from their attentiveness to their surrounding environment. Through their attentiveness, they perform a “self-direction,” towards the places that are favorable for germination (37).

3.3. PLANT COMMUNICATION

Plants are sessile beings, which is to say that they are connected to the place that they inhabit. In the places, where they remain connected to, plant communication occurs in a peculiar way. Their movement enables them to stretch out to farther grounds by their roots or branches for a specific aim, which might be for nutrition or sunlight. However, Marder states that “the plant does not come out to meet the world outside the locale where it grows. Instead, the world comes to it: a squirrel climbs a tree branch, a child extends her hand to pluck a flower” (“The Place of Plants” 190). For that reason, plants “develop an elaborate array of biochemical signals, defenses, and adaptations that respond to whatever happens in their vicinity. What seems to be a reactive behavior is a key feature of sessile being-in-the-world” (190). This reactive behavior is a part of their

communicative skills, in which they carry on a message. This message is transmitted by their biochemical signaling systems, which is a unique way of communication, when compared with the human methods.

Plant communication is not parallel to human methods, since the exchange of information also occurs on a cellular level. Their abilities for communication have also been perceived as non-existent because of their lack of voice, sound, or breath, which are the reminders of “a sense of ... humanness” (Burroughs, *Field and Study* 115). In the Western perceptions, such qualities are seen as better suited to human or animals, because their “movements, the tones of the voice, the expression of the face, all play a part in the impression” humans make upon their encounter with other species (88). The lack of such qualities caused the exclusion of plants from the areas of communication. However, as Trewavas suggests, “Internally, plant cells and tissues communicate with each other using proteins; nucleic acids; many hormones; mineral, chemical, hydraulic, mechanical, oxidative and electrical signals; peptides; various lipids; sugars; wall fragments; and other complex carbohydrates” (“Mindless Mastery” 841). Even though how this system of signaling works has not been discovered, it is proven that even “uniform cells exhibit enormously different responses to a single signal” (841). Therefore, it can be said that plants are not “automatons” because there is variability in responses to stimuli even on cellular level (“Aspects of Plant Intelligence” 2; “Mindless Mastery” 841).

Communication or interaction with others is possible as a result of a certain intelligent behavior. The “dispersed life of plants” stands out as a mode being for plants in which they are constantly “in relation to all the others, being *qua* being-with” (Marder, *Plant-Thinking* 51). Plants are in a continuous tendency directed towards their other. This continuity of directedness is unlimited and farther reaching for the plant. Accordingly, Deleuze and Guattari explains the wisdom of plants as, “even when they have roots, there is always an outside where they form a rhizome with something else - with the wind, an animal, human beings (and there is also an aspect under which animals themselves form rhizomes, as do people, etc.)” (*A Thousand Plateaus* 11). Such capacities enable the plants to be active by promoting their “participation in life” (Marder, *Plant-Thinking* 52). In that sense, as Marder suggests, plants appear as “the living, dynamic, growing/decaying” members that have a say in the world (“A Philosophy of Stories” 190).

3.3.1. Language of Plants

Language, in terms of critical plant studies and contemporary philosophy, is not referred to as a metaphor. Rather, as Marder suggests, plants are to be included in the scope of language tradition, which does not include only humans (Marder, *Plant-Thinking* 75). In essence of communicating lies the importance of speech. Breath is considered to be essential for the voice to be produced, which, in return, creates a sensible speech. Therefore, for speech, the voice or “the arch-phenomenon of hearing-oneself-speak” is crucial (74). However, plants are known to be silent and speechless, without a voice (Marder, “A Philosophy of Stories” 189). For this reason, it is obvious that they “cannot address the other” (Marder, *Plant-Thinking* 74). It is profoundly attested that “the silence of vegetation is unbreakable and absolute” (74). John Burroughs acknowledges the silence that plants have, especially the pine trees, which he accepts as “the tree of silence” (*Signs and Seasons* 40). However, even though silence is prevalent in plants, it does not mean that the plant does not show any reaction. When in contact with outer elements, they can produce certain sounds. For instance, when in relation with the wind, the bamboo or the reed generates a sound. Or they release a variety of chemical signals when in contact with changing external stimuli. This proves that even though the plants are incapable of speech, they do not “keep anything back,” nor do they “conceal anything” (Marder, *Plant-Thinking* 74-5). As Burroughs suggests, the plants’ “repose” and their “silence” carry a load of meanings and messages within (*Signs and Seasons* 39).

John Burroughs puts forth the peculiarity of the sounds of vegetation. He proposes that there is a certain sound in the pine which “sifts the howling storm into a fine spray of sound” (*Signs and Seasons* 41). Even though the pine is usually silent in its nature because of its lack of rustling leaves, it reflects a certain sound on its own by transforming the whooshing wind. Another example, Burroughs gives is the pine trees. In *A Year in the Fields*, he records that the “pines hum” with the winds (5). As an affiliation of plants’ health and fruition, sounds of plant life transpire as the “brimming meadows seem fairly to purr as the breezes stroke them; the trees rustle their myriad leaves as if in gladness,” as Burroughs reflects (*Under the Maples* 71). Similarly, John Muir, in “A Wind-Storm in the Forests,” mentions the voice of plants, especially trees. He refers to them as a “passionate music” or “the grand anthem” (468). He suggests that there are a variety of

tones in this collective music. These tones come from different species at the vicinity. He states that he “could distinctly hear the varying tones of individual trees, - Spruce, and Fir, and Pine, and leafless Oak. – and even the infinitely gentle rustle of the withered grass” (468). He contemplates on the voice of these plants, each of whom “was expressing itself in its own way, - singing its own song, and making its own peculiar gestures, - manifesting a richness of variety to be found” (469). Through these lines, it can be understood that Muir recognizes that plants are possessive of characteristic sounds, as well as making use of peculiar gestures. This perception points out to “individuality in almost every tree” (469). Their language and expression of them is differentiated from one another and it can be observed and heard, according to Muir. He elucidates that the “varied gestures of the multitude were seen to fine advantage, so that one could recognize the different species at a distance of several miles” (470-1). Similarly, Burroughs also suggests that it is possible to make a differentiation between the quiet and noisy plants. As he suggests, through the passage “from deciduous woods into pine woods of a windy day,” it is probable to observe that “the day has suddenly become calm” (*Signs and Seasons* 40). Then, it can be said that deciduous trees, which have leaves that come and go according to the season, make a remarkable sound when in contact with the wind. While leafless trees, such as the pine with needles, remain silent in its attitude even though the external stimulus as the wind is prevalent.

Even though plants do not vocalize in their communication, one of the ways that the plant language is recognized is through the sounds that they produce when in contact with outer stimuli. This language is one that can be heard. Another aspect of their self-expression, in addition to their audible language, is their production of certain smells. As already suggested, breath is one of the essential qualities for the production of voice (*Plant-Thinking* 74). However, John Burroughs suggests that having fragrance is similar to having a voice in plants. He brings together the act of exhaling, which is in the core of producing sounds, with the plant’s ability to release fragrance. He mentions that plants “exhale ... fragrance,” when referring to the odor of flowers (Burroughs, *A Year* 130). Therefore, fragrance stands out as a quality that functions as language. As Burroughs proposes, the scents that are released by a flower are “its song” (*Signs and Seasons* 125). Through this song, as a reflection of their language, the plants express themselves. The language of the plants is heard and smelled simultaneously, according to John Muir. He

suggests that in order to heighten his senses in an encounter with plant life, he closes his eyes “to enjoy the music by itself, or to feast quietly on the delicious fragrance that was streaming past” (“A Wind-Storm” 471). Distinctive scents and fragrances are a part of the language that plants use in order to communicate and express themselves. Even though scents recognized by the sense of smell, through the nose, they can be interpreted as their language to be heard. Similar to Muir, Burroughs cross positions the senses by applying synesthesia on his account of plants’ self-expression. In *A Year in the Fields*, he recalls a certain smell that is carried though the wind. He describes the sense that of the smell as “a wild and delicate strain of music ... to the ear” (68).

John Muir also includes a variety of scents in his contemplation on the fragrance of the plants. He states that “The fragrance of the woods was less marked than that produced during warm rain, when so many balsamic buds and leaves are steeped like tea; but, from the chafing of resiny branches against each other, and the incessant attrition of myriads of needles, the gale was spiced to a very tonic degree” (Muir, “A Wind-Storm” 471). He understands that the fragrance is not necessarily produced often for the pleasure of it. Rather, he highlights the enriched fragrance that is released especially when the vegetal life meets the rain, which is also considered as the plant’s other. Similar to Muir, John Burroughs also expresses the “odors” of the vegetal life. The odor he mentions varies from the fragrance of the flowers. The fragrance is, in a way, a sweet smell with soft tones. It is not necessarily for the humankind to take pleasure from it, but it is a favorable note on its own biologically. Burroughs mentions both fragrance and odor, in his discussions about the plant expression by the scents that they emit. In *A Year in the Fields*, the “odors” that Burroughs includes in his observations are “the perfume of the bursting sod, of the quickened roots and rootlets, of the mould under the leaves, of the fresh furrows” (68). These scents are rarely noticed by the general viewers. The lack of utility or instrumental purposes remove these scents away from the Western perceptions. Yet, they are existent within the plant, regardless of being backgrounded or devalued. Another facet of fragrance that Burroughs mentions is the stability and perseverance of the smell. The plant continues to release it as long as it can without an end or a break. As a biological and ontological quality, the fragrance is released persistently. Even when it is released in the air and travelled through long distances by the wind, the same quality is sustained.

Burroughs states that the smell in the air “lasted for two days,” even though it was away from the originating source (*A Year* 69).

In forming discussions about plants, it is to be considered that plant language is conveyed through a dialogue. Dialogue, as a term, is explained through Mikhail Bakhtin’s terminology of the word. It means the “recognition of the other’s ‘voice,’ standpoint, and presence during interaction” (Hall, *Plants as Persons* 9). In a dialogue, there are “two clearly differentiated voices” (Baxter and Montgomery 24). Therefore, dialogue differs immensely from monologue. This is because “dialogue, unlike monologue is multivocal, that is, it is characterised by the presence of two distinct voices.” (24). In a dialogue, it is important to recognize the other’s voice. For John Burroughs, the recognition of the other’s voice is through “A little closer and sharper gaze” (“Sharp Eyes” 57). Assured that the “senses – sight, hearing, smell – are hungry for its delicate ... tokens,” which are the plants, then the voices of plants can be heard (Burroughs, *A Year* 67). As Burroughs suggests, “the eager eye and ear” are the counter parts in the dialogue who recognize the voice of plants (68). The members partaking in the dialogue are not necessarily human. For the plant dialogue, especially, the parties are mainly non-human-beings, such as the animals and other plant species. Therefore, dialogue can be considered as a connection that is made through the touching of two distinct worlds or “temporalities”, as Marder suggests (*Plant-Thinking* 8). When the two worlds come together in a dialogical fashion, then there arises the sharing and communication. Accordingly, Burroughs sees farms as places where dialogues between the humankind and plants occur (*Signs and Seasons* 239). By bringing the two close to one another, farm life creates a multiple of dialogues between them. The dialogues, as Burroughs suggests, happen between the human and the plant, as well as with the animal and the plant. An intermingling of “the birds and birds’ nests, the berries, the squirrels, the woodchucks, the beech woods ... the fragrant wintergreens” creates a multilayered relationship and dialogues between all the members that reside around the vicinity (*Signs and Seasons* 239).

John Burroughs, in *Signs and Seasons*, also contemplates on the language of plants, especially trees, and how their voices would be if they could talk. The voice of the pine, according to Burroughs;

would be pretty high up, certainly, and go over the heads of most of the other trees ... it would not be garrulous and loud-mouthed, though it might talk on and on ... its sentences would be short ones with long pauses between them, and that they would sprout out of the subject independently and not connect or interlock very much. There would be breaks and chasms or maybe some darkness between the lines, but I should expect from it a lofty, cheerful, and all-the-year-round philosophy. (*Signs and Seasons* 44)

As it can be inferred from these lines, Burroughs' contemplation on the pine trees' voice stems directly from the plant, itself. The characteristic traits of the tree, such as being resistant and surviving through years, reflect as a voice that is higher than the others. The height of the tree, similarly, creates loudness and high-pitched voice in the tree (*Signs and Seasons* 44). The assumption that there would be divergence from the subjects and constant skipping of topics potentially stems from the plant's "dispersed life" and "inherent divisibility" (Marder, *Plant-Thinking* 51). Overall, as Burroughs suggests, the voice of the pine tree, if it had one biologically, would reflect "great wisdom and penetration," since it is known to be the species that grows to be much older than others (*Signs and Seasons* 44).

3.3.2. Self-Expression of Plants

One of the precepts of plant freedom and intelligent behavior is the plant's capacity for "self-expression" (Marder, *Plant-Thinking* 129). As Marder suggests, "Aside from communicating their distress when predators are detected in the vicinity by releasing airborne (or in some cases below-ground) chemicals," plants employ other methods for communication (75). One of the ways is presenting and expressing themselves through their exteriority. Their exteriority allows them to express themselves physically. The existence of "curious and amazing forms and incidents, grotesque shapes, preposterous color schemes and appendages" are all a part of vegetal self-expression, as reflected through their exteriority (Burroughs, *Field and Study* 117).

As Marder explains, plants "articulate themselves spatially; in a body language free from gestures" (*Plant-Thinking* 75). Their postures and bodies are the forms of language that enable plants to express themselves. It can be assumed that the plant language belongs to a wider concept which includes "language of things," not limited to the humankind (75). Considered within that concept, plant language harbors "spatial relations and articulations between beings, animate or inanimate" (75). Spatiality is considered both by a single body of plant extending itself by filling up the space, and by the space that is taken up by a

family of the same species reaching out to further lands by disseminating and generating in their vicinity. John Burroughs also acknowledges that plants convey their message through their exteriority, or simply by their bodies. Especially pine trees are strongly expressive of various traits, according to John Burroughs. In *Signs and Seasons*, Burroughs' pine trees express themselves as being different than the others through their bodies or postures. He asserts that "How different the expression of the pine, in fact of all the coniferae, from that of the deciduous trees! Not different merely by reason of color and foliage, but by reason of form" (35). He also contemplates on the pine tree's messages which are conveyed through its body. He states that he questions why "the pine has an ancient look, a suggestion in some way of antiquity? Is it because we know it to be the oldest tree? Or is it not rather that its repose, its silence ... suggest the past, and cause it to stand out in sharp contrast upon the background of the flitting, fugitive present? It has such a look of permanence!" (39). Through these lines, it can be understood that the pine tree, only by the looks of it, carries meanings that look back to the past. It is to be mentioned that Burroughs also applies a perception that stems from the plant and focuses solely on the plant, by highlighting its "repose" and "silence" (39). He also situates the plant within its vicinity, which is an indispensable part of the plant's existence, by moving the attention to its "background" and the tree's position as in contrast to its fresh and ever-changing surroundings (39).

Another example provided by John Burroughs to support this claim is in his *A Year in the Fields*. He captures plants' bodily expression as can be reflected through their postures. He mentions tall weeds which freely express themselves by their height. They are not highly favored and most of the time they are extirpated by farmers since they spoil cultivated lands. The examples to such weeds are the "redroot, pigweed, ragweed, vervain, goldenrod, burdock, elecampane, thistles, teasels, nettles, asters" (170). However, in areas where they are not in danger of being plucked or cleaned off, they express themselves with their tall heights. As Burroughs states "they lift themselves up as if not afraid to be seen now" (*A Year* 170). This expression can be translated as the plant's potentiality of bodily extension in a spot where they are "comparatively safe" (170). This is an expression of their health and vivacity. When accompanied by the vast spaces that plants fill, their self-expression reflects their will to grow incessantly and

reproduce. Green spaces filled with plants, over extending forests and fields are the spaces where the vegetal spatiality can be observed.

Another way that the plant expresses itself is through iteration. As Francis Ponge writes, plants, by “bursting out of themselves,” persistently “repeat the same expression, the same leaf, a million times” (*Selected Poems* 71). He perceives this act as a language that the plant uses for self-expression. As Marder highlights “Each leaf is a repeated expression, a reiteration of the difference that ‘is’ nature” (*Plant-Thinking* 115). It is the exuberance of vegetal life which outbursts itself. Even though there is no final goal to reach for the plant in the ways that it reproduces and iterates the production of its parts, the “countless copies of expressions-leaves are disseminated as the concrete self-expressions of vegetal life” (115). These repetitions with numerous copies “do not consolidate or crystallize the structure of meaning they carry, but simply affirm, with renewed energy, the sense of vegetal existence ... in all its heterogeneity and finitude” (115). Accordingly, Marder points out through this act, they represent plant-thinking which is “a thinking that, while finite, is without end” (“A Philosophy of Stories” 192). Burroughs also believes that the iteration of leaves throughout a plant’s life is a way of expressing themselves. In *Under the Maples*, he suggests “When the leaves come, what a transformation, what mobility, what sensitiveness, what expression” they bring out to the world (2). They represent the transformation that the plant goes through by the aging of their leaves. The color change is expressive of the stages that the leaf is passing through. They represent mobility since they move and change and fall to the ground, eventually. They express their sensitivity by their capabilities, such as photosynthesis, which shows that they are sensitive towards the external stimuli. Thus, leaves can be said to be interpreted as a method of self-expression for plants. However, vegetal life also expresses that it is cautious in its reiteration and losing from itself. As Burroughs suggests the vegetation is “a spendthrift only of what she has the most” (*Under the Maples* 195-6). While it lets out its leaves in abundance, it does not carry on the same manner for its flowers, fruits or its “germinal parts” (195). For this, as opposed to being “spendthrift,” the vegetal life resorts more to being “miser” (209).

The iteration of a million copies of leaves or seeds do not mean that each one is identical. Each leaf represents themselves by having distinctive qualities. This is suggestive of the

plants having “‘principle of the identity of discernables,’ the idea that, if two things were exactly identical, they would have been one and the same thing” (Marder, *Plant-Thinking* 115). Marder sees this production as “anarchic reproduction,” in which “copies upon copies without an original model of the modular development of branches and leaves, of stories upon stories, of the cosmic living being that is itself, a copy or an image of something else” (“A Philosophy of Stories” 192). The anarchy stems from the plant’s resistance to idealization and commonness. It signals that the reproduction is not the production of the same. The modular development produces numerous of copies; yet, the life within brings out “infinitely various ... forms and activities,” as Burroughs suggests (*Field and Study* 158). In fact, they all leave “different impressions” and expressions on their exteriority (158). Through expressing themselves in repetitive cycles, each part of the plant expresses itself on its own. This strengthens uniqueness and individuality of plants, resisting the Western norms that classify or generalize them. In addition, iteration also expresses “the possibility of future generation,” along with the previously generated ones of the same unit (Marder, *Plant-Thinking* 117). It expresses both the past and the future of its existence.

John Burroughs, additionally, examines the postures and movements of different parts in a single plant, as well. He finds out that there also lie certain behaviors that entails self-expression of plants. In *Signs and Seasons*, he observes the central shoot of a spruce tree. While one central shoot is commonly expected to be seen, this one instance carried two leading shoots, which Burroughs calls as “two rival branches” (38). This stature goes on for a two years through which the racing branches “appeared almost evenly matched” (38). However, as Burroughs observes, towards the third year, one of them seems to hold its ground much stronger that the rival branch lowers its position down. Even so, it seems that “the defeated leader appeared to give up the contest ... it began to lose its upright attitude and to fall more and more toward a horizontal position; it was willing to go back into the ranks of the lateral branches” (38). This example proves that there is a variety of attitudes going on simultaneously on a single tree, as well. They express themselves through their positions and physical movements, even though the time span of these attitudes takes relevantly longer. Different branches playing for a leading role of a central shoot reflects out as up-rising and down-falling movements, which act as “simulating defeat and willing subordination” (38). This proves that there is a message that is

conveyed through these movements, which are reflected as language of the plant's self-expression. In addition, Burroughs' cacti also stand as an example of plants' self-expression. The cactus, in the prevailing draught in the waterless desert, expresses itself as "savage and merciless," along with its "spines and prickles and cruel bayonets" (*Under the Maples* 143). They show their harsh nature by their needles that "stab and stab again" as this behavior "suits her humor" (143). Burroughs goes on to suggest that the expression of cactus is visible through "How well she tempers her daggers and bayonets! How hard and smooth and sharp they are" (143).

John Burroughs also includes the scent of flowers and certain species, as a part of their self-expression in *A Year in the Fields*. He perceives fragrance in plants as a gift. He states that this gift "is as capricious as the gift of genius" (51). While some species release a certain smell, the others do not. A factor of chance is at play for this case because some flowers may be scented or not scented even if they are originally of the same species. An example to this case is the hepaticas, as Burroughs provides. There are hepaticas which appear as individuals, while some others are gathered in as a community. It is not possible to discern which one is scented or not. Since their shapes or colors do not disclose this feature, it is only possible to learn through directly smelling them (51). Self-expression through fragrance is not a uniformal quality that is ascribed to all species in vegetation. Thus, Burroughs sees this as a part of the plant's "genius" (134). He suggests that "Genius is a specialty: it does not grow on every soil; it skips the many and touches the few; and the gift of perfume to a flower is a special grace like genius or like beauty, and never becomes common or cheap" (134). Therefore, it can be said that Burroughs sees fragrance as an intelligent behavior of self-expression that is a skill rarely encountered.

3.3.3. Plants as Relational Beings

It is a principle of life for the plant to "remain an integral part of the milieu wherein it grows" (Marder, *Plant-Thinking* 69). In their close proximity to their surrounding environment, plants pursue close relations with their others. Therefore, it can be said that "the plant is an integral part of its surroundings," in which the vegetal life becomes "heteronomously regulated by elements in its own milieu" (72, 170). Burroughs describes living beings as "entities ... acting upon one another" (*Field and Study* 264-5). In this relation all living entities, including plants, are connected to one another through different

layers of relatedness. The relation that the plant has within its environment is that of a docile one. Marder, in accordance, states that the plants' "relation to the elements is not domineering: the receptivity of the flower and of the leaf is obvious in how they turn their widest surfaces to the sun, while the root imbibes everything, whether nutrients or poisonous substances, it encounters in the dark recesses of the soil into which it burrows" (*Plant-Thinking* 69). The closeness of plants to their surrounding environment results in multi-layered relationships. As John Burroughs suggests, these relationships are numerous and varied depending on the context (*Signs and Seasons* 47). He perceives that "All trees in primitive woods are less social, less disposed to intermingle, than trees in groves or fields: they are more heady; they meet only on high grounds; they shake hands over the heads of their neighbors; the struggle for life is sharper and more merciless ... One tree falls against a more stanch one, bruises only itself; a weaker one it carries to the ground with it" (*Signs and Seasons* 47).

The struggle for survival is prevalent in vegetation because of "the overflowing will to power, the pure positivity of growth and expansion where nothing is missing" (Marder, *Plant-Thinking* 39). The will to live and survive predominates the behavior of the plants in the cases where it seems that there is a race in between. This will entails the plant's striving for "power, progress, [and] success" (Burroughs, *Field and Study* 282). The struggle is not only against one another of the plant kind, but it also against wild animals. Some species such as apple trees or the red horn are more skilled in terms of surviving against such forces, while some other species such as the linden remain inactive and weak which can be seen in their "shoots [that] are swept off every summer" (*Field and Study* 39). Even in the cases where the plant seems to be protecting itself from the other, the acts are not considered to be violent. General belief might be that the cactus has thorns and needles in order to protect itself from the dangers. However, Burroughs believes that plants do not resort to violent means to save themselves. He believes that the spikes of the cactus "cannot be for the protection or defense" as can be seen in the cases of "the grass and other vegetation upon which the grazing animals feed are not armed with spines" (*Under the Maples* 143-4).

As Marder further elucidates in terms of docility, the plant "does not lay claim to itself in a sovereign fashion, consolidating itself over and against the place it inhabits" ("A

Philosophy of Stories” 193). However, as Burroughs suggests, in certain cases, some species with a strong will to extend themselves in proliferation may take up much more space than they are expected to extend. Grass, for instance, is known to proliferate over to new spaces when the conditions are suitable for them. In such cases, as Burroughs thinks, “the vast army of the grass hath its victories, for the most part noiseless, peace-yielding victories” (*Under the Maples* 75). By “overrunning” or “invading” spaces, which are inhabited by another species, plants may over express themselves by challenging the original inhabitant plant (Burroughs, *A Year* 140). This may turn into a competition amongst the species. Some species, for instance, show their “persistence” and “pugnacity” (149-50). They struggle and resist against forces that mean to extirpate them in ways as can be seen in their growing of “rapid strides upward” from their broken and damaged branches (Burroughs, *Field and Study* 40). These plants are resistant and aggressive because “They fight for the soil; they plant colonies here and there, and will not be rooted out” (Burroughs, *A Year* 150). These examples of species such as the vermin, which are mainly from the Old World and not indigenous to the United States, are seen as “pernicious ... noxious of troublesome,” according to Burroughs (145). These migrated weeds have persistent characteristics of living that they manage to escape from the attacks of the plow or chemical interferences. Burroughs provides a long list which are the migrant weeds, including the burdock, common and Canada thistle, catnip, purslane and so on (147). Because of their resistance and pugnacity, Burroughs calls them as “a usurper ... a defier of the plow and the harrow” (150). However, their competition to survive cannot be said to be violent and exhausting. This mood shows that they are strong-willed in terms of holding strictly to the ground. Burroughs recalls that when he tries to pull up one of these weeds -curled leaf dock-, he finds out that the weed “has more lives than a cat, making a shift to live when pulled up and laid on top of the ground” (151). Even in a case of extirpation by pulling it out of the earth, it still directs its roots towards the soil to get a hold of life. In most cases, as Burroughs presents, some plants extend and cover a large space without invading the already cultivated lands. Therefore, they do not challenge the already existing plant species, but they “hover about the borders and look over the fences” (148). Even though how “lusty” they may seem, they are quite “royal” in terms of their attitude towards the other’s space (148). Most of the native species of

weeds, as Burroughs suggests, are mainly “shy and harmless, and retreat before cultivation” (150).

By existing in nature in a way that is not domineering, plants share their place in relation to their others. John Burroughs presents an example of docile nature of plants in their relationship with others (*A Year* 75). Their relations with their others not only causes a change in the plant, but also in the counterpart which the plant builds a dialogue with. In this dialogue, Burroughs observes the leaves of a tree and its close relation to a bird species, the chewink. These leaves, as Burroughs suggests, have the bird -chewink- as their other, in their dialogue. They are in close relation with this species of birds because chewink tends to be on the branches and directly in contact with the leaves. Since the bird is a shy one by its nature, it often situates itself amongst the leaves. Due to this close and constant physical contact, the leaves touching the body of the bird have given their color to the belly of the bird. As Burroughs states the bird is “in compliment to the leaves he is forever scratching among” (*A Year* 75). The leaves become a part of the bird because of their closeness to one another. These leaves portray a mutual relation with the bird, by providing a shelter for the bird, as well as reflecting themselves on the bird. This reflection is observed in the color of the bird, since the leaves “have rustled against his breast and sides so long that these parts have taken their color” (75).

Most of the relations plants create with their others stems from their dependencies on their other. They depend on the other for the dissemination of the seeds, for instance. This also creates a relation between the plant and its other. Another interaction the plant establishes with another member is the bee. Plants are in relation to bees since they rely on them for the scattering of their pollen. Pollen dissemination occurs with the plant drawing the bee to itself with its fragrance or honey (Burroughs, *A Year* 141). Their radiating colors, along with the fragrance they emit, is a relation that the plant builds with bees. As Burroughs also suggests, burdocks, for instance, with their hooks “fish for you and your dog and sheep and cow, and they catch you, not with one hook, but with twenty or fifty, all at the same time” (*Field and Study* 33). They strictly connect to the other for such purposes that feed their will for proliferation. They do not hide or isolate themselves or make it impossible for their others to reach their seeds. Thorns of some species, for instance, might seem as a way to protect the plant from other animals or predators. However, their

reliance and dependence on their other is immensely vital that they would not perform in the ways that they would damage their chances of proliferation. Burroughs mentions the spikes of red thorn bristles and suggests that “if they are designed to keep away bird or beast from eating its fruit, see how that would defeat the tree’s own ends!” (*Under the Maples* 147). Since “increase alone is Nature’s end,” the plant would not stop its benefactors for this purpose (147).

In addition to the plant’s dependency on the other for dissemination of its seeds, in some cases, however, the dependency comes from the counterpart of the plant. Burroughs finds out that “All the northern creatures are more or less dependent upon the pine” (*Signs and Seasons* 41). As Burroughs lists, “ruffed grouse,” “red squirrel” and “warblers ... like the Blackburnian and the blue yellow-back” are amongst the population that depends on the hemlock tree for either shelter or food (46). Therefore, the dependency of another entity on the plant creates a relation between the two different species, in which the closeness of the counter species positions the plant as being the “accustomed” one (77). In such cases, the relation is defined by the other’s dependency, since it is the initiator of the relation. For instance, the connection between the tree and the bird is strictly tightened that some species of birds are considered as the “nurslings of this tree” (41). According to Burroughs, “the pine grosbeak and pine linnet” are amongst the ones that are seen as “nurslings” of the pine tree (41). Their beaks are naturally grown to easily attain nutrition from the acorns of the tree. Since they first begin their life by feeding on the pine acorns, they are, in a way, offsprings of the tree. Thus, they are also named after the pine tree. A similar case applies to certain species, such as the “hemlock warbler,” which is originally the blackburnian warbler, that is named after “its favorite tree” (*Signs and Seasons* 46-7).

Certain species’ dependency on plants is also vital for their survival. They rely on the sources that are provided by plants. Burroughs positions the question; “What would the birds and the fowls do during such winters, if the trees and the shrubs and plants all dropped their fruit and their seeds in the fall, as they do their leaves?” (*Signs and Seasons* 54). The question appropriately underlines the crucial position that plants have as relational beings in their environment. This relation of the plant with its other shows that the plant is also sustaining and giving life. Plants form relations not only with birds, but with numerous members of “the sylvan folk,” as well (Burroughs, *Signs and Seasons* 46).

These entities are the ones that inhabit the woods and forests and depend on the plant induced sources for survival. Meadows, for instance, with richness of vegetation, harbor and facilitate a growing number of mice (*Field and Study* 41). Thus, the mice depend on the vegetation for survival. Additionally, the plant's cambium layer, which is one of the central points of the plant's vitality, is equally significant in sustaining for the other's vitality. As Burroughs observes, squirrels feed on the maple trees' "soft, white, mucilaginous substance" that is the cambium layer found between the bark and the tree's body (*Signs and Seasons* 55). The sap of the sugar maple tree is also another substance which sustains life of the others (55). Similarly, as Burroughs suggests, some dependencies of other entities on certain plants grant strength and power to the other. An example to this is the relations forming around pine trees, which is explained by Burroughs in *Signs and Seasons* as, "The dominant races come from the region of the pine" (41). Emerson, also, mentions a parallel connection about the pine, as can be seen in the following lines "Who liveth by the ragged pine / Foundeth a heroic line" (qtd. in *Signs and Seasons* 42). These lines propose that the communities rising around the pine tree achieve strength and resilience, similar to the pine itself which is strong-willed and sturdy, living for hundreds of years (41, 42).

Additionally, the relations that plants create with other living members of the environment feed the co-dependency of both parties. One example is the relation between the plant and the bird. Some plants, such as the juniper berries or the sugar berry tree, keep their fruit for a long period of time through the colder seasons (Burroughs, *A Year* 191). The reason for this is to save their berries for the birds that would come to feed off them. Through this feeding process, the seeds are revealed, which are previously hidden behind the juicy coating of the berries. Not only the bird benefits from the plant in a nutritious way, but also the plant turns this relation into an advantageous one (191). Animals such as birds and squirrels are, therefore, counterparts of the positive relation that the plant makes with the outer world. Nut bearing plants and trees, with their "heavy nuts – butternuts, hickory-nuts, acorns, beechnuts", due to their reliance on these animals, "offer them the wage of the sweet kernel, and knows that they will scatter more than they eat" (*Under the Maples* 196). According to Paco Calvo in *Planta Sapiens*, such behaviors can also be considered as "plants seduc[ing] animals with sensory delights into being their illicit go-between" (Calvo). They seduce the other animals for their seeds to be scattered.

While these animal counterparts are “seeking nourishing nectar and pollen,” they find themselves to be rewarded “for the service they provide” (Calvo). Burroughs similarly provides his own account of seducing nature of the plants through using animals as “interlocuters” (Calvo). Burroughs states that plants give the message to “all the creatures that will sow the seeds of her berries” that reads as, ““Do this chore for me, and you will find the service its own reward” (*Under the Maples* 196).

Plants also are in direct contact with the humankind. Weeds, especially, are amongst the plants that form close contacts with humans. Burroughs describes them through their tendency to “cling to man and follow him around the world, and spring up wherever he sets his foot!” (*A Year* 135). Their relation to humankind is in the form of a clingy one, as Burroughs suggests. This closeness, in return, feeds their proliferation since they are scattered across the land with the human that they are connected to. Supporting Marder’s claim that the plants’ “relation to the elements is not domineering,” Burroughs states that the plants are “domestic and familiar, and so harmless withal” (Marder, *Plant-Thinking* 69; Burroughs, *A Year* 135). Their connection to human life is not violent, exhausting or dominant. Rather, they positively continue and linger on harmless and docile grounds. Just as the plants “remain an integral part of the milieu” of their dwelling, Burroughs also agrees that these plants -weeds, such as wild mustard, motherwort, catnip, plantain, and tansy- are “an integral part of every old homestead” (Marder, *Plant-Thinking* 69; Burroughs, *A Year* 136). In *Signs and Seasons*, Burroughs puts forth the idea that “How friendly the pine-tree is to man,” referring to the tree’s friendliness when in relation to the humankind (40). Their friendliness comes from their “docile and available” nature (40). Even though some facets that Burroughs gives might be instrumentalistic, such as the having the tree as a shelter or as a healer with its resin, he also provides a biocentric approach, as well, in which the plant is seen as a part of nature through “tempering the climate” (40). When the humankind is perceived as the plant’s other, it can be inferred that the resin of the tree has a healing function of the plant’s other. Similar to plants creating a shelter for the birds or other animals resulting from their close relations to their environment, it can be said that the plant facilitates a cover for the humankind, as well. Such connections are to be looked into from a plant-thinking perspective, in which plant kind is in the center of the perception of other-than-human beings.

Another point that Burroughs adds in *Signs and Seasons* is that the vegetation affects the literature of the humankind. As Burroughs suggests, it can be seen especially in Northern literature, “an atmosphere that is resinous and curative ... under an influence that is arboreal, temperate, balsamic” (42). These lines illustrate the dependency of literature on the vegetal life. This dependency is reflected in the traits of the literature that belong genuinely to the plant kind, such as being “piny,” “resinous” or “balsamic,” in its character of being “arboreal” (42). Additionally, in *Signs and Seasons*, Burroughs mentions the influence of plants on the lives of humans as can be reflected in their personal traits. The more a person builds close relations to the vegetation, the more resemblances occur between the plant and the human. Burroughs defines a man who spent more than forty years in the woods and grew close to his surrounding environment. This closeness bears certain qualities that appear in this person which are originally suitable for the vegetation. For instance, as Burroughs states, this person “had ripened and matured” in the woods, eventually placing him in a position where “everything about him was as if the spirit of the woods had had the ordering of it” (103). Plant life reflects itself on this man in a way that is “softening and refining,” as well as leaving a remark that “nursed [and] half concealed the tenderest and wildest growths” in this person (104). His character grows to be similar to that of the plants by his heightened sensitiveness and attentiveness to his environment (103). A person in close connection to vegetal life accomplishes to “take root and thrive” (245). Similarly, a person’s thinking also resembles to that of plants in the ways that it becomes “a kind of combustion, as is the ripening of fruits and leaves, and he wants plenty of oxygen in the air” (Burroughs, *A Year* 167). In addition, vegetal modes such as being attentive towards numerous directions at once, being discreet, silent and docile, similarly, become encrypted in humans who are in direct connection with plant life. A life that is spent close to vegetation teaches a person “gentleness and indirection, and to keep himself in the background” (Burroughs, *Signs and Seasons* 110). The indirection that Burroughs puts forward stems from Marder’s concepts of the plant life that follows varied directions simultaneously as can be seen in their “multidirectional growth” and “infinite proliferation” (*Plant-Thinking* 37, 38). In their multidirectional attitude, they follow a gentle and docile stance (69). Burroughs’ touch on staying in the background also highlights his acknowledgement of the plants’ nature as keeping out of sight in “obscurity” (Marder, *Plant-Thinking* 9). This

backgrounding also undertones the silent nature of the plants, which is also reflected in the person's keeping quiet so that any others cannot "scent his opinions upon any subject" (Burroughs, *Signs and Seasons* 110).

Plants' relation to their others is not limited to being connected to others which are observable physically and spatially. Plants form relations with all the surrounding elements, whether they may be in the air or in the soil (Marder, *Plant-Thinking* 70). The plant's other is not necessarily an individual, but it may also be an inorganic element (72). This showcases unidirectional relations that the plant makes with its surrounding environment. Their dependence on their other results from the fact that "the plant is not separate from its environment" (72). This dependence on the surrounding environment proves that there are "plant communities," which are unique and differentiated from one another depending on the place where they are formed (Marder, "A Philosophy of Stories" 196). In some cases, two different communities of the same species are also likely to occur. Burroughs provides such an example in *Field and Study*, where he encounters two distinct groups belonging to the same species. What creates a separation resulting in the separation is that "two sexes are represented by separate plants ... [and they] are usually found separated from each other in well-defined groups" (210). In addition, as Marder suggests, plant communities are made up of "interactions among plants; the collaborations and collisions of plants with bacteria, fungi, and animals; diets and habits; and ... the wilderness" (196). Similarly, plant communities are made up of a variety of other plant individuals which form interactions within the community, as well as across communities. John Burroughs also presents plants as connected to one another, which can be reflected through their exterior traits. He proposes that "Both the pine and the hemlock make friends with the birch, the maple, and the oak" (*Signs and Seasons* 47). This connection or relatedness of these species transpires as a similar quality that is presented simultaneously by different species. Burroughs shows that "these intermingled trees," show their relatedness to one another by "forming a combination of colors like the richest tapestry, the dark green giving body and permanence, the orange and yellow giving light and brilliancy" (47). Some plants -such as the spiked loosestrife- prefer to dwell in "dense communities," while some others -such as the cypripedium- prefer solitude in nature (Burroughs, *A Year* 142, 133).

A community can also be reduced to its relation to one single plant because of the multitude of beings which share the same root in the soil (Marder, "A Philosophy of Stories" 196). Similarly, this sense of community can be broadened up to include the communicative patterns within the single body of a plant. Burroughs provides an example to support this notion by stating that "The trunk of a tree is like a community where only one generation at a time is engaged in active business" (*Under the Maples* 6). Within this community various parts of the plant have a purpose on their own which act towards a common target, which is the overall health and growth of the plant, itself. In this communal relationship, "rootlets of a plant or a tree are like the laborers in the field that produce for us the raw material of our food, while the leaves are like our many devices for rendering it edible and nourishing. The rootlets continue their activity in the fall, after the leaves have fallen, and thus gorge the tree with fluid against the needs of the spring" (6). In this web of relationships, it can be seen that even if one part stops its action, the other one continues to do so in order for the plant to keep its vivacity. Similarly, the channeling of messages goes through the parts of a plant in peculiar ways. Burroughs exemplifies such an example through the strawberry vines in *Under the Maples*. He states that there is a channeling of message or a relationship between the runners that set out to further spots. When the runner fails to take ground and stops its search, it can be understood that the rest of the leaves that are following the lead understand the message. As Burroughs suggests "Each group of leaves apparently draws its sustenance from the one next behind it, and when this one fails to reach the soil it loses heart and can give little succor to the next in front" (213). From their exteriority of diminishing, failing, bruising, it can be understood that they have shared the message in between through the ones that are closer to themselves.

As relational beings, the relations that plants build with their surrounding environment is also decisive in the plant's behavior of growth. For instance, as Burroughs presents, "If the weed finds itself distanced, or pitted against great odds, it grows more slowly and is of diminished stature, but let it get the upper hand and what strides it makes!" (*A Year* 153). When relatively better conditions are secured for the plant in terms of its relateness to its environment, then the plant's growth is more extended and wide. On the contrary, when the plant is cornered with less favorable conditions, it diminishes and shows lesser growth (153). Such is also an example of the relatedness that results in a

negative outcome for the plant. Similarly, the pine trees, according to Burroughs, has gone through an adverse transformation which resulted in the diminishing of the ancestor pines (*Signs and Seasons* 45). While the old ones have been considered as the epitome of strength and resilience, the “second growth seems to be a degenerate race ... call[ed as the] pumpkin pine, on account of its softness” (45). Because of over-lumbering practices that exhausted the original pine tree, there remains “only isolated bands, and straggling specimens, like the remnants of a defeated and disorganized army” (45). Deforestation efforts, which isolate trees while they were gathered as a thick community, are one of the reasons for such softness in the pine tree. The barrenness of a previously forested area which is located around the river, as Burroughs suggests, causes floods during the spring (45). These floods are one of the reasons that causes softening of the trees’ trunks.

This section, as the final part of this study, focuses on the variables that can be seen in behavior patterns of plants. Concepts of plant freedom, intelligence and communication show that plants pursue on various grounds, in which major distinctive qualities occur, which are specific to each genus of plants. Freedom of plants shows that plants are liberated in terms of generative or aesthetic expectancies, in addition to being free, as is shown in their physical play of not germinating or delayed germination. In addition, plant intelligence surfaces as an important part of their existence, in which intentional and variable acts or behaviors for the purpose of survival are examined. Aside from their freedom and intelligence, plant communication in which plant-specific forms of language are used, shows plants as communicative and relational beings. Even though notions of freedom, intelligence or communication are mainly reserved for human or animal kind, both Michael Marder and John Burroughs show that these concepts fit well into the existence of plants. In doing so, these concepts are examined through non-anthropocentric points of view, which de-center the human and focus solely on the lives of plants.

CONCLUSION

Plant-blindness, which has been going on for thousands of years, has had serious consequences that has affected the natural and vegetal life. Anthropocentric thought has not only widened the gap between the animal and the human, but it also removed the human attention from the lives of plants. Vegetal bodies have been largely taken for granted by the mainstream perspectives, which resulted in insensible and violent practices that has paved the way for the exhaustion of the vegetal world. Today's climate change crisis is also in direct relation to the ecocide of plant life. In this regard, Critical Plant Studies, as a newly emerging field, serves well to the purpose of sustaining of a healthy earth and ecosystem. This thesis, by focusing on John Burroughs' plants, brings this prominent figure in American nature writing to the present day, along with his past research and investigations on the plant life. It can be said that Burroughs' insights, which are analyzed in his selected works, introduce a way of thinking of the lives of plants, which coincides with recent studies on the field of critical plant studies. This knowingness of plant life arouses a scholarly interest that delves into existential qualities of plants.

This study compiled four of John Burroughs' works with regards to Michael Marder's philosophy on vegetal life. Through an examination of Burroughs' plants, which include woody plants, trees, flowers and weeds, this study attempted to shed light to John Burroughs' nature philosophy. The study centered on John Burroughs' works which are *A Year in the Fields* (1875), *Signs and Seasons* (1886), *Field and Study* (1919), and *Under the Maples* (1921). In doing so, Michael Marder's *Plant-Thinking: A Philosophy of Vegetal Life* published in 2013, along with his other contributions to the field of Critical Plant Studies have been scrutinized. The main focus of this thesis was to bring forth new ways of thinking of plant lives by cultivating a "vegetative point of view" (Sheridan 39).

John Burroughs' collections of essays, consecutively, *A Year in the Fields* (1875), *Signs and Seasons* (1886), *Field and Study* (1919), and *Under the Maples* (1921) are specifically chosen for the purpose of this study, in terms of the abundancy of Burroughs' interpretations of the lives of vegetation. While he produced a wide range of essays and publications throughout his lifetime, the chosen four of these works specifically attempted to shed light to Burroughs' nature philosophy, by placing the plant at the center, since

“the great revolving cycle of wild life” also includes the “floral” (Burroughs, *Field and Study* 213). Burroughs, in four of the works that were analyzed in this study, gathers his observations around numerous species of plants. A variety of commonly found species in nature ranging from trees, to flowers, to weeds are the central subjects of his works. While plant life is mostly left out in the Western literary works, individual plant bodies and singular features of various genera of plants become the subjects of Burroughs’ nature essays (Laist 11). They represent not only Burroughs’ perception of nature and skills to capture the vegetal life, but also his observation and contemplation on the life and existence of plants. Even though the time gap is remarkable when compared to the field of critical plant studies, emerging as a contemporary and relatively new field of study, John Burroughs works carry in-depth study of vegetal existence. Just as Michael Marder states that his approach to the plant life is only to “brush upon the edges of their being,” Burroughs’ objective, from more than a century ago, is to “light upon the whole of Nature” along with the vegetal life and “her methods, her laws, her results, her non-human ways” (Marder, *Plant-Thinking* 13; Burroughs, *Field and Study* 176). In accordance, both writers look into the vegetal world through the eyes which de-center the human.

Michael Marder, through his *Plant-Thinking*, proposes a new perception to vegetal life by suggesting an outlook to vegetation only by focusing on the plant, itself. Marder’s concept of “plant-thinking” proposes a distinguished way to perceive plants without attributing Western notions and qualities that pushed the vegetation to “the margin of the margin” by the Western minds (*Plant-Thinking* 2). Marder believes that the reason why Western philosophy has not provided a philosophical space for the plant is that “plant life does not fit any of the clearly defined modes of vitality in Western thought. Plants are weird beings who seem to be neither alive nor dead, or both alive and dead at the same time, based on the Western definitions of vitality” (“Our Future is Vegetal” 66). Since plants challenge the mainstream notions about vitality, Western philosophy is believed to leave behind the plant life in the philosophical discussions. As Marder further suggests, Western “philosophers did not quite know what to do with plants, how to categorize them, precisely because they do not fit into one clear category of beings, but straddle various divides” (66). Since plants “do not fit the ideal of metaphysical being,” their categorization, generalization, and instrumentalization do not fit into the existence of the plant (Marder, “Our Future is Vegetal” 66). Marder’s contemplations on “vegetal

existence” prove that the plant’s “subjectivity, [is] drastically different from that of human beings” (*Plant-Thinking* 9). Therefore, comparing the plant’s existence to humankind or animals would be a failed attempt in the considerations of vegetal life. This is due to the fact that Western thinking fails to perceive plants outside of their purposefulness; hence, they do not recognize “vegetal life as *life*” (25).

Contemporary studies center more on the lives of other-than-human beings. The critical focus on plantal life and behavior, namely “the plant turn,” provides a basis for scholarly input on the field of critical plant theory (Sheridan 39). Accordingly, As Lewis-Jones proposes, “foregrounding plants and their vegetal sociality and botanical subjectivity” is becoming crucial in the field of social sciences for the purpose of “decenter[ing] the human, and to better comprehend the more-than-human, [since] it seems that plants and their modes of being have distinct contributions to make” (2). Therefore, on the contrary to the “Western hyperseparation from nature,” recent studies prove a new perception to the scope of philosophy in order to include the vegetal life (Hall, *Plants as Persons* 99). The shift towards a new perspective is challenging and troublesome for the mainstream philosophical thought. However, it is to be noted that “We cannot radically shift our understanding and perceptions if we limit ourselves to orthodox scientific gospel” (Calvo). As Calvo suggests in *Planta Sapiens*, “Understanding plants in a new way could dramatically change the way we see the world.” Marder and Irigaray also illustrates that “To give ourselves a reminder about other possible, though largely repressed, modes of thinking, it will be advisable to question the way of approaching the non-human embodiments of life” (“Thinking Anew” 28).

Plant thinking, as a perspective, discusses the difference between “objects” and “subjects” in the considerations of lives of other-than-human beings (Marder, *Plant-Thinking* 71). These modern categories obscure the look towards the environment and plants. As Marder puts it, “Learning from plants is in the first instance unlearning the objectifying approach to the world” (71). The encounter with the vegetal world leads the way for further demeanors for understanding their world and their life in it. Similar to Michael Marder’s proposal of perceiving the plant world from the plant’s perspective, John Burroughs also proposes the prominence of finding “the reason of things in the things themselves” (Marder, *Plant-Thinking* 9; Burroughs, *Field and Study* 269). Such an

encounter is possible through careful observation, as in Burroughs' terms. Through this perception, the plant world "becomes known to you as they cannot be known to a passer-by" (*Field and Study* 213). This is to say that the uneducated or inattentive eye does not accomplish a meaningful encounter with plants. Just as Michael Marder, who proposes a unique method of seeing the plant world from the plant point of view, John Burroughs acknowledges the prominence of understanding the plant life by diving "into the current of it and sees its characteristics and by-play" (Burroughs, *Field and Study* 197). Getting familiar with the vegetation lies at the core of achieving an encounter with the vegetation. In the prevalent "plant-blindness" atmosphere, it might be challenging to notice the vegetal life. As Calvo suggests, "We can see plants ... but we don't *notice* them." This due to their exuberant nature where humankind becomes visually accustomed to the existence of vegetal life. As Burroughs attests, "How insignificant appear most of the facts which one sees in his walks, in the life of birds, the flowers ... or in the phases of the landscape," because of the commonness and deep familiarity with the elements in nature (*A Year* 218). As opposed to "plant-blindness," which refers to "the inability to see or notice the plants in one's own environment" (Wandersee and Schussler 3), Burroughs attests that "Familiarity with things about one should not dull the edge of curiosity or interest" (*Field and Study* 214). Rather, as he proposes "there is nothing more potent and mysterious than the common elements and forces" (269).

As Burroughs presents, humans maintain a relation with "positive affection" with plants because of their closeness to humans (*A Year* 135). He further discusses to suggest that this affection is a reminder of "The primal sympathy," which is attested by Wordsworth (*Field and Study* 245). "The primal sympathy" stems from humans' relation "with birds, flowers, trees, rocks, winds, waves – we are all more and more conscious of" (245). Their exuberance is also appreciated with "positive affection" (*A Year* 135). Indeed, as Burroughs suggests, humankind is "drawn by that which retreats and hides itself, or gives only glimpses and half views" (*Signs and Seasons* 250). As a resistance to mainstream Western "plant-blindness," Burroughs states that he accomplishes to see the hidden modes of existence by unearthing "what was beneath the moss and the leaves" (257). Various modes of being that entail the plants' vitality, their capacities, abilities, intelligence, and behavior systems are hiding behind that veil. As he suggests "The wood held unknown treasures," which are seen through careful observation and growing a

plant-thinking (257). Thus, the encounter with the plant can be said to be fused by the sympathy, or close relations, or positive affection, or by love. This feeling or approach is the pivotal point that marked a divergence from the Western thinking. As Burroughs suggests, such an approach “is what mainly distinguishes the modern attitude from the ancient,” in a way that clarifies the opposition between the Western thinking of plants and the recent approaches into critical plant studies (*Field and Study* 246).

John Burroughs carries a parallel point to Michael Marder in terms of how they perceive vegetal life. Even though there is more than a century of gap between the two, their ways of looking at the plant bear similarities. Just as Burroughs proposes a lookout to the plant life in his essays, such as “Sharp Eyes,” “A Sharp Lookout” and “The Art of Seeing Things,” Michael Marder proposes “plant-thinking,” which requires a “mode of thinking proper to plants” (Marder, “What is Plant-Thinking?” 124). Burroughs perception of vegetal life, mediated by his natural philosophy, is elaborated in his works which are analyzed for the purpose of this study. His accounts of his observations provide the reader with a detailed script of vegetal life and its implications as singular beings with their certain modes of living and behavior patterns. Marder, similarly, looks into vegetal life as it is by focusing on the “the impersonal, non-individuated *it thinks*” (*Plant-Thinking* 12). Both works provides the vegetal resistance to Western idealization and nominalization in which the plant life is seen as passive and inactive, as if a dead matter. Plants’ mode of invisibility, according to Marder, is a guise. Plants guise themselves in passivity. While they are in a constant flourishing, their vegetal mode of existence is by being seemingly passive (20). Similar to Marder who proposes that the plant life is in guise, Burroughs also believes that plants are intentional and aware in the sense that their passivity is only a “guise [that] she wears” (Burroughs, *Under the Maples* 39).

As John Burroughs suggests, acts and behaviors of vegetal life “are so unlike our ways” (*Under the Maples* 147). Thus, the necessity to grow a plant-thinking occurs in order to see plants from their points of view. This notion, again, bears parallels to Michael Marder’s “plant-thinking,” since he also proposes the necessity of carrying a thinking which is “de-humanized and rendered plant-like, altered by its encounter with the vegetal world” (“What is Plant-Thinking?” 124). This perception de-centers the human from the process of examination, thus calling for “the impersonal, non-individuated *it thinks*

underlying and subverting the ever-present synthesis of *I think*,” which is utilized in conscious interpretations of plants (*Plant-Thinking* 12). As Burroughs further suggests, “To try to explain her [vegetal life], in terms of our own methods is like trying to describe the sphere in terms of angles and right lines” (*Under the Maples* 199). In accordance, Burroughs believes that he is “aware that we falsify her methods in contrasting them with those of man in any respect” (199). Therefore, the eminence of growing a “plant-thinking” perspective arises, which “situates the plant as the fulcrum of its world” and to “let plants be within the framework” of their world, which is solely “*of and for plants*” (Marder, *Plant-Thinking* 8, 9). He underlines the acknowledgement of the vegetal world from the perspective of the plant. Rather than human reasoning or interactions that describe plants in respect to humans, Marder interprets the plant world from the plant’s perspective. He questions the meaning of the world for the plant, along with the plant’s relation to it. In addition, the plant’s tendencies, intentions and requests are the concern of Marder’s standpoint (9). Similarly, Burroughs also carries the same concern which is lacking in the Western thinking since “We do not think of the function of the leaves, nor of the bark, nor of the roots and rootlets, when we gaze upon a noble oak or an elm” (*Under the Maples* 7). Additionally, Burroughs’ interest lies in the understanding of the vegetation’s “methods, her laws, her results, her non-human ways” (*Field and Study* 176). Therefore, it can be inferred that both Marder and Burroughs possess a similar perspective which centers solely on the life of plant, with their distinctive modes of existence.

Burroughs also suggests that the human mind is to look at plant life through “cross-question[ing]” it in order to “get at the truth” (*A Year* 192). This is because plants do not carry mechanical or normative attitudes. Many facets are to be taken into consideration when a plant-thinking is meant to be achieved. It is to be understood that, in vegetation, there are “whole truths, half truths, and quarter truths, if not still smaller fractions,” as Burroughs mentions (*A Year* 209). The variables and varieties in plant life show that there is no one stable norm that applies to all forms of life. Rather, the plant life, only reserved for the plant itself, is scattered and in tendency towards all directions. Therefore, in order to provide a lookout towards plants as Burroughs and Marder do, life of plants, which uniquely entails a dispersed vitality, is to be acknowledged.

The main objective of this study is to reveal that John Burroughs holds a nature philosophy. His nature philosophy extends to include the vegetation, stemming from the “the great revolving cycle of wild life,” which includes the “floral,” as well (*Field and Study* 213). This nature philosophy, from more than a century ago, coincides with the recent studies on vegetal life. In that regard, demonstrating that vegetation has a space in the philosophical discussions about existence, this study tries to prove that such perspectives on the lives of plants carry a higher meaning. In today’s world, where the violent acts against natural life are ravaging, a philosophy of nature comes to the fore to preserve and sustain the vegetal life. What is learnt through a single and a small encounter with plant life is crucial since it surfaces as a sensible and practical attitude in humans. As Burroughs states, such a perspective, for a person, turns the “circuit of his own field” as if it is “returning from a voyage around the world” (*A Year* 180). Seeing a small fact in the lives of plants would bring out a wider picture for the human perspective of plants. Such encounters teach humans certain facts and “new knowledge” about natural life, especially with regards to vegetation (*Under the Maples* 13). In essence, as Burroughs suggests, an encounter with the vegetal world through acknowledging their life and behavior requires “A certain degree of culture” in the humankind which necessitates an upgraded and renewed perception (*Leaf and Tendril* 152). The perception of a plant-thinking encourages “direct contact with the soil and with the elements,” growing a “close acquaintance with the heart and virtue of the world” through keeping close to vegetal life (*Signs and Seasons* 232-3). This nature philosophy of Burroughs is reflected as the overarching goal of this study to help protect vegetation. The relations built with the vegetation is through acknowledging their position in nature and their traits of vitality. The “friendships” and “intimacy” that are built with the plant kind carries a deeper meaning. Such interactions and encounters of humans with the plants “humbles him, teaches him patience and reverence, and restores the proper tone to his system” (245). Thus, John Burroughs’ nature philosophy, as explained through Marder’s “plant-thinking,” necessitates a step back from the human-centric goals and purposes attributed to vegetal life. As Burroughs states in *Signs and Seasons*, “Pride, when it is conscious of itself, is death to the nobly beautiful,” as Burroughs suggests (262). Human feeling of pride leaves no room for appreciation of vegetal life. The relations that are built with vegetation needs to be re-evaluated without the human pride that limits the perception

towards other-than-human entities. Therefore, a perception that de-centers the human from the interpretations of vegetal life is required.

The acknowledgement of nature philosophy in Burroughs' works, backed by Marder's interpretation, not only changes humans' attitude towards plant life which directs humans for the sustainability of vegetation, it also "helps us to recover our breath, it teaches us to perceive what being alive means and how much it requires both autonomy and faithfulness to our natural rooting" (Irigaray and Marder, "Thinking Anew" 28). Learning the vegetal qualities and modes of life, such as their being silent, hidden, heterogenous, and attentive following a divergence of time, in addition to their relations with the outer world, teaches peculiar traits of the vegetation to the humans. As Irigaray and Marder further suggests, the "vegetal world also invites us to keep silent and to cultivate silence not as a lack but as a place where we can free ourselves from the weaving of discourses and habits, in which we are involved, gather ourselves together anew" (28). Burroughs' philosophy, in that sense, can inspire grassroots movements by reframing the narrative around plants as active participants in ecosystems. Being familiar with Burroughs' perspectives on vegetal life can be pivotal in encouraging communities to become involved in hands-on practices on the health of green spaces. Educational programs, policy advocacy, and community projects can draw on his ideas to promote reforestation efforts, protect endangered plant species, and establish protected natural areas. For instance, incorporating his reverence for nature into environmental education could foster a generation that values biodiversity and champions conservation. His writings also encourage ethical land stewardship practices, making them relevant for policy frameworks addressing environmental degradation. Recognizing plants as sentient and active agents underscores an ethical duty to safeguard ecosystems. Such approaches lead to more inclusive environmental ethics that account for the needs of all life forms, including non-human-entities.

Burroughs interprets a large number of plant species in his works that are selected for this study. In four of the works that are specifically selected for this study, *A Year in the Fields*, *Signs and Seasons*, *Field and Study*, and *Under the Maples*, Burroughs includes numerous species. In *A Year in the Fields*, for instance, Burroughs mainly focuses on flowers and certain weeds. The flowers he includes are Canada violet, hepatica,

loosestrife, spiked-loosestrife, liver-leaf, cypripedium, especially in terms of carrying or not fragrance, as well as being fragrant only at times. Weeds that he looks into in *A Year in the Fields* are English chickweed, milkweed, Canada thistles, burdock, redroot, curled-leaf dock, and common grass, specifically for their strong will to live and proliferate. In this collection, Burroughs also examines bigger bodies of plants such as the trees. The ones that he includes are hemlocks, maples, pines, American plane trees, birches, for their plasticity and metamorphosis in addition to their capacity for growth and proliferation. The main species of *A Year in the Fields* are specifically the smaller bodies of plants, which are the flowers and weeds. The part where Burroughs' champion species of this collection reside is in "A Bunch of Herbs," with the subtitles "Fragrant Wild Flowers" and "Weeds." Flowers and weeds are majorly discussed in *A Year in the Fields*, as proliferating; becoming other than themselves as in relation to time and space; living in communities or in solitary; having freedom of bearing or not bearing fragrance; carrying individualistic traits that resist to dogmatic notions; and clinging to life with their strong hold. Secondly, in *Signs and Seasons*, Burroughs mainly examines bigger members of the vegetal community, such as the pine, spruce, hemlock and maple. The pine stands out as the champion of this collection as can be evinced in the part, titled "A Spray of Pine." The pine tree stands out in this collection as growing ceaselessly reaching great heights and thickness of stalk. In addition, the pine reflects the vivacity as being dispersed in body of a plant, with leaves carrying on nonparallel grounds of growth, as well as sustaining life for the others. In addition, Burroughs looks into the pine as a member of vegetal community in which its versatility for perpetual growth, along with its silence, repose, as well as its friendliness as relational beings stand out. Other than pines, maples are for instance another species that Burroughs looks into. The sap of maples and their cambium layer are topics that Burroughs engages with in *Signs and Seasons*, in terms of the former's heteronomy as being susceptible to atmospheric changes and the latter's becoming a sustenance for the lives of the maples' others. Spruce and hemlock trees are also other species in question for Burroughs stemming from their exuberance of life with vastness; the relations within the branches for a race towards being the central shaft; as well as, the dispersed temporality within the foliage of the trees.

Field and Study also brings together a number of species which are mostly weeds and certain species of trees. Weeds that he mentions are loosestrife, burdock, bidens, clematis,

antennaria, and grass, while the trees he mentions are fruit trees, oaks, maples, and redhorns. In addition, he introduces other specific forms of vegetation, such as the air plants, which differ from rooted plants that rely observably on the soil. His weeds stand out as utilizing certain tools and methods that make them clingier to the external sources for the dissemination of their seeds, in addition to the ferns and black raspberries that seem to walk. The trees that he mentions signal the heteronomy of their growth, as well as producing acorns, all of which are unique from one another. The champion species of this collection can be considered as the burdock. Burroughs mentions the burr of the plant as clinging with all its force in order for the dissemination of its seed. Burdock is seen amongst the ones which are in humbler orders, yet they perform unique devices and makeshifts for the continuity of life. Burroughs examines the burdock in scrutiny since its ways of living and keeping up with the world prove high stamina and strong hold of life. Burdock's skillful attachment to life with ceaseless production of seeds and hooky shapes of these seeds bring forth the wisdom and intelligence of the plant. As the overall title of the collection suggests, *Field and Study* brings not only the plant but also Burroughs' reflections on their modes of living. The study extends to include intelligent behavior of plants, physical play of seeds, and their sensitivity towards external forces, such as the gravity, and the cycles of the sun. As the final selection of this study, *Under the Maples*, presents Burroughs' plants which include spiked plants such as the cacti (yucca, Spanish bayonet, American aloe, the century plant, red-thorn bristles, bushes of black-berry, raspberry, gooseberry, rose, and the devil's club, in addition to the grass and strawberries. Big forms of plants – the oak, sequoia, elm, and maple – are also amongst his plants which point out to nutritive capacity that enables vast growth in vegetation. Especially, maple trees with their sensitive and relational characteristics highlight the whole collection. *Under the Maples* presents not only certain species but also their certain body parts, by focusing on the dispersed mode of existence of plants. The parts, such as the roots, leaves and the seeds of the plants highlights the dispersed vitality of the plant, as well as the repetitive growth patterns of it. Maple trees' sap production which is indicative of their heteronomy towards hot and cold; their leaves signaling the change of seasons via their non-identity of changing colors; and their root systems which are sensitive and intelligent by inclining towards the desired minerals showcase that the various parts of a plant are individually capable of certain qualities. The champion species

of this collection can be considered as the spiked species, especially the cacti. The part titled “The Desert Note” provides a comprehensive outlook to the spiked species which inhabit the desert areas. Cacti rises as a vegetal being which has a complex existentiality in terms of bearing spikes. Their heteronomy, evidently, results in the existence of such spiky stalks. The adaptive skills to harsh conditions transpire as severe exterior traits for the plants to grow. This not only highlights their heteronomy, but also their intelligence which glows more luminous as much as the external conditions are challenging.

Within that perspective, the first chapter of this study centered on the cause of decentering the human from the discussions of vegetal life, as exemplified through John Burroughs’ works. Initially, the first part of this chapter provided a base ground of marginalization of vegetation within the perspectives of Western philosophy. Plant life has mostly been demeaned or left out in the Western philosophy because of its presumed distance from human and animal life. Aristotelian “Chain of Being,” which created a hierarchical order amongst the beings in nature was accepted as the prevailing notion in the discussions that include the plant (Hall, *Plants as Persons* 7). This perception provided a blurred line between the considerations of plant life as animate or inanimate. Aristotelian view mediated the ways vegetal life is perceived, thus resulting in “a *default position* of [plant] exclusion” (Hall, *Plants as Persons* 37). In the attempts to include plants into the discussions about life, traditional perspectives have located the plants within strict borders and definitions via classifying plants. These classifications and nominalizations have created dogmatic notions in which plant life is mostly generalized. In these discussions, plant life has been considered as passive which lacked motion. Their presumed passivity, as well, resulted in the excluding of plants from major discussions about life. Behind the veils, such as lack of motion or sense, vitality of the plant remained concealed in the Western philosophy. Another aspect that formed a border between plants and Western thinking was that the plants have been considered as “incomplete.” Their incompleteness is thought to be stemming from their lack of innate purpose. On their own, plants have not been accepted as complete (Marder, *Plant-Thinking* 23). Their completion is possible through their utilization for the human needs. Once they reach a point where they can be fully used for basic human needs such as food and shelter, then they achieve a completion, as the Western philosophy emphasizes (Marder, *Plant-Thinking* 23).

Resisting to the nominal concepts of plants put forth by Western philosophy, which perceive them as passive and incomplete, the following parts of the first chapter bring to the fore the vegetation as full of life, mobile and active, by pursuing an intentional obscurity. Michael Marder's thoughts on plants; as being alive with full exuberance of life; as being mobile in the sense that the plant "'moves,' in ways appropriate to its being" suitably interchangeable in accordance with "its mode of living" (*Plant-Thinking* 20); along with the hidden nature of plants which necessitates "respecting the obscurity of vegetal existence" (*Plant-Thinking* 9) stand out as prevailing notions in decentering the human from discussions about vegetation. In doing so, Marder's unique approach to vegetal life transpires as an "encounter" with the vegetal life. Relatively, the last part of the first chapter aimed to provide a parallel view of John Burroughs' works which bring forth the same aspects of vegetation which are living, mobile and hiding under the veil of obscurity via providing related examples from Burroughs' *A Year in the Fields*, *Signs and Seasons*, *Field and Study* and *Under the Maples*. In order to provide these aspects, this study centered Burroughs unique perception of observation through utilizing his essays "Sharp Eyes," "A Sharp Lookout" and "The Art of Seeing Things." Bearing parallels to Marder's "encounter," Burroughs' contemplations on seeing the life of vegetation created a baseline for the interpretation of Burroughs' selected works for this study.

The second chapter of this study aimed to gather John Burroughs' outlook to plant existentiality by centering on various modes of vegetal being. It specifically looks into Vegetal Vitality, their Non-Conscious Intentionality and Vegetal Temporality. As opposed to Western perception, Michael Marder's *Plant-Thinking* emerges as bringing together the notions that provides a new perception to the thinking of plants. By offering a perception that allows to see the vegetal life only through their perspectives, Marder proposes a ground for the vegetation to express their existentiality and vitality. Vitality transpires as being exuberant and dispersed in plants; therefore, it is seen as "a fountain of living matter rising up out of the earth and splitting up and spreading out at its top in a spray of leaves and flowers" (Burroughs, *Under the Maples* 7). It can also be traced both in the cases of "the oak in the acorn" and the "flower in the bud" (188). The first part of the second chapter delved into the nature philosophy of John Burroughs, by applying Marder's gatherings on philosophy of vegetal life, which considers plants through modes that are appropriate to vegetation. John Burroughs' observations of vegetal life, from a

century earlier than Marder, bear parallel aspects of vegetal modes of being. Initially, the first part of the second chapter is aimed to provide a base ground for the vitality of plants which endows the plant with numerous capacities and capabilities. As Burroughs attests plants are capable of various qualities which are uniquely reserved for the plant only; thus, they are not to be explained through, as Burroughs suggests, “our own consciousness” (*A Year* 195). Their capabilities are performed within “their own fashion, of accessing, influencing, and being influenced by a world ... that corresponds to the vegetal modes of dwelling on and in the earth” (Marder, *Plant-Thinking* 8). For this reason, capacities and capabilities of vegetal life have been discussed in order to provide for the vital characteristics of the plant. Burroughs mentions capabilities of plants as having their “own devices and makeshifts” (*Field and Study* 33). These “makeshifts,” which are the plants’ “ingenious devices,” define their capabilities and capacities which are the underlying motives behind plantal actions, which also proves the plants’ “effectiveness” in life (*Field and Study* 33, 122; *Signs and Seasons* 234). Their capabilities and capacities, along with “Any device that a plant ... has for getting on in the world” are a part of vegetal existence study (Burroughs, *Field and Study* 32). The capabilities of air-plants, for instance, which are skilled in appropriating natural sources for their life are mentioned by Burroughs (*Field and Study* 123). Oaks, elms, and sequoias are included in terms of their gross nutritive capacities in *Under the Maples*, in addition to hemlocks, birches, maples and gigantic ferns in *A Year in the Fields* (*Under the Maples* 4; *A Year* 93, 94, 102). Smaller bodies of Canada thistles, as well, are examined in terms of their vitality and strong will to live (*A Year* 136-7).

Adding to the capacities of plants, the second chapter looks into their non-conscious intentionality, which is definitive of their directedness towards their other. Plants carry on “ceaseless experiments in every possible direction” which cannot be explained through anthropomorphic terms since they happen beyond human “consciousness,” as Burroughs suggests (*A Year* 195). Nietzsche’s “Will to Power,” which applies to vegetal life, bears resemblances to Burroughs’ highlighting of the striving of the vegetal world towards “power, progress, success” (*Field and Study* 282). This intentionality stems from their heteronomy which suggests that the plant relies on others for the purpose of living. Plants evidently need light, water, and minerals in the soil to assimilate into their system for life and nutrition. Their heteronomy to such sources results in heterogeneity of their being. In

that, each plant is different and follow on various patterns, as affected by their heteronomy. This mode of being is also evident in their externalization, since they express themselves through their externalization. It means that their being is expressed visibly on the outside of the plant. Life and growth patterns of plants are observable since they maintain on “a perpetual revelation,” as John Burroughs suggests (*Field and Study* 135). Finally, the last part of the second chapter delved into vegetal temporality which highlights the time as the plant’s other. The time is in direct relation to vegetal growth, which either slows down and accelerates the process. In general, “There are slumps, lapses, delays, waste” in the vegetal time (*Field and Study* 309). Each are expressive and influential in the plant’s growth. Burroughs’ burdock, amaranth and abutilon show the dependency of vegetation on the time of other and their adaptation to the time by controlling their growth patters (*A Year* 138, 170, 171). In addition, Burroughs’ plants show their stance within the extended timeline through “bad infinity” and iteration. Their growth follows on a pattern which does not end or conclude, which is indicative of the bad infinity concept that applies to plant life. Plants’ incessant growth are also traced in the cases of Burroughs’ pine trees which tends towards an unlimited growth (*Signs and Seasons* 40, 46). Within their place in endless time, their life and growth pursues to “*ad infinitum*” (Burroughs, *Field and Study* 190). Thus, there occurs the inevitableness of multiple production in which the plant expresses its iteration. This iterative pattern in vegetal life is supported by the existence of “Circles, circles, everywhere” in nature and vegetal life (Burroughs, *Field and Study* 190). Burroughs suggests that circles define the natural life, as well as plant life. In that, “All natural forms strive for the spherical” which highlights the universal trend of “circular movements and circular forms to which the Cosmos tends” (Burroughs, *Under the Maples* 191).

The third and last chapter of this study centered on vegetal behavior interpreted through Burroughs’ selected works. The third chapter examines Burroughs’ plants in terms of Vegetal Freedom, Plant Intelligence and Plant Communication. Vegetal behavior, as their existentiality requires, follows on a variety of patterns. In order to form the base of vegetal behavior, this study delved into aspects of vegetal freedom, which enables a variety of behavioral divergences in plants. Burroughs’ plants stand out as liberated from Western attributions to their being, as well as being physically free in terms of their growth, as theorized by Marder. Plants are liberated in terms of their existence, in addition to defying

the standardized beauty expectations. As John Burroughs acknowledges, the scope of beauty in vegetal life includes all, such as the “disagreeable and repulsive” (*A Year* 215). In addition, their existence as “aris[ing] freely” and “*sui generis*” on their own shows that they are “beautiful in and of themselves,” underlining their independence (Marder, *Plant-Thinking* 140; Burroughs, *Signs and Seasons* 250). Burroughs’ grass, for instance, is the embodiment of liberated plants since they do not fit into Western ideals, by resisting beauty norms and generating freely (*Under the Maples* 74, 75; *Signs and Seasons* 234). In defining their freedom, it is important to include physical play. It entails their freedom in endless production and thrownness from within without reaching a realization. Plants’ perpetual thrownness does not always finalize in the germination of a plant. This is considered within the “natural sifting and distributing process” of vegetation (Burroughs, *Under the Maples* 203). The chances are not predetermined or assured to come to a realization. Rather, as Burroughs suggests, this process resembles to the game of “heads and tails” in which one wins, while the other loses only by mere chance (*Under the Maples* 181). Thus, this aspect of the seeds of various plants species show that they resist generative expectancies (213). Secondly, in the third chapter, plant intelligence is delved into, in order to showcase their intelligent behavior, which stems from their sensitivity to external conditions and their attentiveness to their others. Both their sensitivity and their attentiveness highlights their plasticity or metamorphosis, which entails being prone to changes in the external stimuli. Burroughs’ dandelions, for instance, are looked into in terms of their intelligent behaviors of keeping their heads down until the maturation of their seeds, which reflects both their sensitivity and attentiveness in their environment (*A Year* 189). Gravitropic behaviors of plants are also examined in terms of plants’ sensible behaviors in regards to the gravity (*Field and Study* 37). Vegetal intelligence is traced by Burroughs in the plants which perform unique traits and adaptive skills. They show “greater versatility, and more resources,” since they can expose adaptational qualities and perform relative behaviors (Burroughs, *Signs and Seasons* 40). He highlights that there is a “foresight,” a “wit,” or “wisdom” which is “fragrant in the flowers,” as well as being an aspect of vegetal life that “grows on trees” (*A Year* 189; “Animal and Plant Intelligence,” *Leaf and Tendril* 175; *Field and Study* 252).

Finally, the last part of the third chapter looked into communicative patterns of plants and their unique ways to do so by being a part of the communication. Language of plants, in

this sense, holds great importance since the language of vegetation does not bear any similarities with that of the humankind or animals. Rather than a speech, they produce or react with certain sounds, such as humming, whooshing or rustling. Their fragrance, as well, stands out as their voice which they “exhale” (Burroughs, *A Year* 130). Fragrance is referred to as a language that flowers use for expressing themselves, as can be seen in Burroughs plants –spiked loosestrife, hepatica, liver-leaf– (*Signs and Seasons* 125; *A Year* 130, 131, 142, 210). Both the sounds and their release of fragrances are considered as the plant’s “song,” according to Burroughs (*Signs and Seasons* 125). Burroughs also brings forth not only their language, but how they use this language in terms of their self-expression. Their silence, repose, posture, spatiality and iteration are all parts of their self-expression. Finally, their capacities of communication through unique qualities of language demonstrate them as relational beings. Plants cannot be thought out of their environment where they form relationships with outer elements or entities. Burroughs perceives the plant world as consisting of member which are constantly “acting upon one another” (*Field and Study* 264-5). Therefore, in that web of connections, plants form relations with their others. Burroughs’ burdocks, for instance, creates physically close relations with their others since they depend on the others for the dissemination of their seeds (*Field and Study* 33). In other cases, the others’ dependency on the lives of plants also represents plants as relational beings. Burroughs’ mention of “nurslings” of pine trees proves this facet (*Signs and Seasons* 41). Certain species of birds, such as “the pine grosbeak and pine linnet” are amongst the ones that are seen as “nurslings” of the pine tree, which shows the counterpart of the plants’ relational communication (41). The counterparts of plants’ relations are various animals, ranging from birds to squirrels; humans who grow close to vegetal life; elements in the air and soil; and other plants which may be trees, weeds or grass. Depending on the context, plants stand out as relational beings which not only transforms and changes in the relation, but also they reshape and transform its the other through the process, as well.

As this study has brought together, vegetal life and vegetational world are two realities, which are strictly separated from the human-centric world and perceptions. Through growing a plant-thinking perspective, it is possible to create a lookout to the life of vegetation through the plant’s perspective. Even though this field of study is contemporary and newly emerging, John Burroughs’ plants, as reflected in *A Year in the*

Fields, Signs and Seasons, *Field and Study*, and *Under the Maples*, prove that Burroughs utilized a similar approach via his lookout. In that sense, both Michael Marder with his idea of “plant-thinking,” as reflected in his *Plant-Thinking: A Philosophy of Vegetal Life*, and John Burroughs with his nature philosophy which is attained through truthful observations as reflected in his “Sharp Eyes,” “A Sharp Lookout” and “The Art of Seeing Things,” provide a common point in the discussions of vegetal life. In a time of climate and wilderness crisis, it is crucial to develop new ways of thinking, especially for the lives of plants. Michael Marder’s perspectives on vegetal life introduces a revolutionized outlook to plants. Thus, basing it on Marder’s works, the overarching aim of this thesis is to reflect that John Burroughs also brings forth new ways of thinking of plant lives by cultivating a “vegetative point of view” (Sheridan 39). Burroughs’ plants, for this purpose, stand out as complete and living beings with their unique capacities and modes of existence, within their vicinity, as they exist by themselves, following intelligent and communicative relations. John Burroughs’ perspectives on vegetal life demonstrate that Burroughs holds a significant ground in the field of Critical Plant Studies. It can be inferred from his extensive gatherings on the lives of plants that Burroughs is one of the keystone nature writers who has enriched and contributed to Critical Plant Studies. He is a prominent writer who has brought up new horizons in the field by introducing new ways of thinking of the lives of plants. The era of the “plant turn” necessitates scrutinized study in the vegetal world. For this reason, a study on plants in John Burroughs serves in favor of mediating the emergence of new perceptions of the plantal world. Burroughs has contributed to the field by his perceptions on vegetal vitality, non-conscious intentionality and vegetal temporality, accompanied by vegetal freedom, intelligence and communication. His contemplations on plant life and contributions to the field are indisputable. His perspectives on plants reveal that Burroughs has a nature philosophy which transpires in favor of the protection of the vegetation worldwide, by arousing ethical behaviors for the health of ecosystems. His philosophy encourages to move beyond utilitarian views of plants and adopt approaches that honor their role in sustaining ecological equilibrium. Balancing Marder’s and Burroughs’ philosophical shift with actionable solutions ensures that this biocentric approach remains grounded in practical outcomes, such as restoring degraded habitats and addressing ecological injustices.

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APPENDIX 1. ORIGINALITY REPORT

	HACETTEPE ÜNİVERSİTESİ SOSYAL BİLİMLER ENSTİTÜSÜ	Doküman Kodu Form No.	FRM-YL-15
		Yayın Tarihi Date of Pub.	04.12.2023
	FRM-YL-15 Yüksek Lisans Tezi Orijinallık Raporu <i>Master's Thesis Dissertation Originality Report</i>	Revizyon No Rev. No.	02
		Revizyon Tarihi Rev. Date	25.01.2024

TO HACETTEPE UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
DEPARTMENT OF AMERICAN CULTURE AND LITERATURE

Date: .../.../2025

Thesis Title (In English): John Burroughs' Plants: An Ecocritical Approach to Burroughs' Nature Philosophy as Reflected in *A Year in the Fields*, *Signs and Seasons*, *Field and Study*, and *Under the Maples*

According to the originality report obtained by myself/my thesis advisor by using the Turnitin plagiarism detection software and by applying the filtering options checked below on 13/02/2025 for the total of 239 pages including the a) Title Page, b) Introduction, c) Main Chapters, and d) Conclusion sections of my thesis entitled above, the similarity index of my thesis is 2 %.

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Kindly submitted for the necessary actions.

TUĞÇE GÜL BABACAN

Student Information	Name-Surname	TUĞÇE GÜL BABACAN
	Student Number	N21220982
	Department	American Culture and Literature
	Programme	American Culture and Literature

SUPERVISOR'S APPROVAL

APPROVED
(PROF. DR. UFUK ÖZDAĞ)

**As mentioned in the second part [article (4)/3] of the Thesis Dissertation Originality Report's Codes of Practice of Hacettepe University Graduate School of Social Sciences, filtering should be done as following: excluding reference, quotation excluded/included, Match size up to 5 words excluded.

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HACETTEPE ÜNİVERSİTESİ
SOSYAL BİLİMLER ENSTİTÜSÜ
AMERİKAN KÜLTÜRÜ VE EDEBİYATI ANABİLİM DALI BAŞKANLIĞINA

Tarih: .../.../2025

Tez Başlığı: John Burroughs'da Bitkiler: *A Year in the Fields, Signs and Seasons, Field and Study* ve *Under the Maples* Adlı Eserlerde Burroughs'un Doğa Felsefesine Ekoeleştirel Bir Yaklaşım

Tez Başlığı (Almanca/Fransızca)*:.....

Yukarıda başlığı verilen tezimin a) Kapak sayfası, b) Giriş, c) Ana bölümler ve d) Sonuç kısımlarından oluşan toplam 239 sayfalık kısmına ilişkin, 13/02/2025 tarihinde şahsım/tez danışmanım tarafından Turnitin adlı intihal tespit programından aşağıda işaretlenmiş filtrelemeler uygulanarak alınmış olan orijinallik raporuna göre, tezimin benzerlik oranı % 2 'dir.

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Gereğini saygılarımla arz ederim.

TUĞÇE GÜL BABACAN

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	Programı	Amerikan Kültürü ve Edebiyatı

DANIŞMAN ONAYI

UYGUNDUR.
(PROF. DR. UFUK ÖZDAĞ)

* Tez Almanca veya Fransızca yazılıyor ise bu kısımda tez başlığı **Tez Yazım Dilinde** yazılmalıdır.

**Hacettepe Üniversitesi Sosyal Bilimler Enstitüsü Tez Çalışması Orijinallik Raporu Alınması ve Kullanılması Uygulama Esasları İkinci bölüm madde (4)/3'te de belirtildiği üzere: Kaynakça hariç, Alıntılar hariç/dahil, 5 kelimeden daha az örtüşme içeren metin kısımları hariç (Limit match size to 5 words) filtreleme yapılmalıdır.

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		Yayın Tarihi <i>Date of Pub.</i>	22.11.2023
	FRM-YL-09 Yüksek Lisans Tezi Etik Kurul Muafiyeti Formu <i>Ethics Board Form for Master's Thesis</i>	Revizyon No <i>Rev. No.</i>	02
		Revizyon Tarihi <i>Rev. Date</i>	25.01.2024

HACETTEPE UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
DEPARTMENT OF AMERICAN CULTURE AND LITERATURE

Date: .../.../2025

Thesis Title (In English): John Burroughs' Plants: An Ecocritical Approach to Burroughs' Nature Philosophy as Reflected in *A Year in the Fields*, *Signs and Seasons*, *Field and Study*, and *Under the Maples*

My thesis work with the title given above:

1. Does not perform experimentation on people or animals.
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4. Is not a research conducted with qualitative or quantitative approaches that require data collection from the participants by using techniques such as survey, scale (test), interview, focus group work, observation, experiment, interview.
5. Requires the use of data (books, documents, etc.) obtained from other people and institutions. However, this use will be carried out in accordance with the Personal Information Protection Law to the extent permitted by other persons and institutions.

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I respectfully submit this for approval.

TUĞÇE GÜL BABACAN

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	Student Number	N21220982
	Department	American Culture and Literature
	Programme	American Culture and Literature

SUPERVISOR'S APPROVAL

APPROVED
(PROF. DR. UFUK ÖZDAĞ)

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AMERİKAN KÜLTÜRÜ VE EDEBİYATI ANABİLİM DALI BAŞKANLIĞINA

Tarih: .../.../2025

Tez Başlığı (Türkçe): John Burroughs'da Bitkiler: *A Year in the Fields, Signs and Seasons, Field and Study* ve *Under the Maples* Adlı Eserlerde Burroughs'un Doğa Felsefesine Etkileşirel Bir Yaklaşım

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Gereğini saygılarımla arz ederim.

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