

Tolkien's Sonic Trees and Perfumed Herbs: Plant Intelligence in Middle-earth

John Charles Ryan
Edith Cowan University, Australia

Abstract



Plant life is an integral part of J.R.R. Tolkien's fictional writings. Percipient trees, exemplified by Old Man Willow, possess the capacity to vocalise and approximate human speech, whereas herbaceous plants tend to be silent and aromatic. While Tolkien attributes qualities of consciousness and memory to sonic trees, he denies similar intelligent qualities to herbs, such as athelas or kingsfoil. This paper will compare the representation of the sonic trees and perfumed herbs of Middle-earth through the framework of emerging science in plant bioacoustics and behaviour. The distinction between the *extrinsic* and *intrinsic* capacities of plants underlies a more nuanced approach to plant intelligence in both Middle-earth and the living botanical world of everyday human experience. Tolkien's arborescent ethics privileges trees, endowing them with vocalisation, while constructing healing plants in terms of their use value and associating the sense of smell with a non-sentient flora. A more inclusive conceptualisation of intelligence and sentience involves close attention to the diverse sensory expressions of vegetal beings and non-human nature.

Keywords: J.R.R. Tolkien, Middle-earth, Old Man Willow, athelas, bioacoustics, critical plant studies.

Resumen

La vida vegetal es una parte integral de la ficción de J.R.R. Tolkien. Los árboles perceptores, ejemplificados por el Viejo Hombre-Sauce, poseen la capacidad de vocalizar y parecerse al lenguaje humano, mientras que las plantas herbáceas tienden a estar en silencio y ser aromáticas. Aunque Tolkien atribuye cualidades de conciencia y memoria a los árboles sónicos, niega cualidades inteligentes similares a las hierbas, como la athelas u hojas de reyes. En este trabajo se compara la representación de los árboles sónicos y de las hierbas perfumadas de la Tierra Media a través del marco de la ciencia emergente de la bioacústica y el comportamiento de las plantas. La distinción entre las capacidades *extrínsecas* e *intrínsecas* de las plantas forma la base de un enfoque más matizado a la inteligencia de las plantas, tanto en la Tierra Media como en el mundo botánico de la experiencia humana cotidiana. La ética arborescente de Tolkien favorece a los árboles, dotándolos de vocalización, mientras que crea plantas sanadoras en función del valor de su uso, asociando el sentido del olfato con la flora no-consciente. Una conceptualización más inclusiva de la inteligencia y la conciencia implica mucha atención a las diversas expresiones sensoriales de los seres vegetales y la naturaleza no humana.

Palabras clave: J.R.R. Tolkien, Tierra Media, Viejo Hombre Sauce, athelas, bioacústica, estudios críticos de la planta.

Introduction: Tolkien's Plants in All Senses

Real, imaginary and semi-fictional plants populate J.R.R. Tolkien's legendarium. Some are vocal and menacing, while others are fragrant and therapeutic. The plants (or plant-like beings) that murmur, speak or sing most commonly appear in the form of trees. A prominent example comes from *The Fellowship of the Ring* in which the hobbit Frodo Baggins is put under a soporific spell in the Old Forest by the wrathful singing and chanting of Old Man Willow (Tolkien, *The Fellowship* 116–117). In contrast to vocal trees, plants that cannot make sounds of their own volition tend to appeal strongly through smell. For instance, one of the most celebrated plants in the legendarium is *pipe-weed* or *leaf*, based on the botanical genus *Nicotiana*. Hobbits were the first to smoke its burning leaves to relax their travel-worn bodies, heal injuries, promote clarity of mind and foster conviviality. The inhabitants of the Middle-earth kingdom Gondor called the herb *sweet galenas* and esteemed the fragrance of its flowers but did not consume it like tobacco, as hobbits and, later, dwarves and wizards would (Tolkien, *The Fellowship* 7–8).

The examples of Old Man Willow and pipe-weed indicate the range of plant representations in Middle-earth—from “siren-like” (Brisbois 211) trees that use sonic forms of address to herbs of sociality that are pleasing to olfaction. On the one hand, these variations reflect the narrative purpose of each plant in Tolkien's fictional world. On the other, the author's knowledge of botany and ethical values infuses his rendering of Middle-earth flora and their sensory potentialities and modes of expression. Indeed, Tolkien had an ongoing interest in flora. He was an ardent gardener and especially defensive of trees (*Letters* 402–03, 420). The story “Leaf by Niggle” was penned as an indignant response to the cutting down of an old poplar near his home (*Tree and Leaf*). The visual appeal of illustrated florals, the tactile experience of growing flowers and herbs, and general curiosity about the particular temporal and ontological modes of plants sustained his attention to botany. Tolkien recognized “the mystery of pattern/design” in plants and described the variations between botanical families as rousing “in me visions of kinship and descent through great ages” (*Letters* 402). On occasion, he also addressed flowers directly and speculated about their capacity to respond, as an extract from his personal letters about elvish daisies discloses (*Letters* 403).

The word for plants in Tolkien's fictional language *quenya* is *olvar*, in contrast to *kelvar* for animals. The terms are broadly comparable to *flora* and *fauna* (Tyler 313). In *The Plants of Middle-earth* (2006), Dinah Hazell outlines the symbolic meanings, mythological associations, narrative elements and historical allusions of Tolkien's *olvar*. However, I suggest that the communicative abilities of Middle-earth flora also prompt readers to think imaginatively beyond the prevailing conception of the plant as mute and unintelligent—as a relatively immobile life form defined in its other-than-animalness (Marder 2). Some of Tolkien's *olvar* are hybrids between actually existing species and mythological and folkloric plant personae. While historically and ecologically grounded, his botanical legendarium, in part, also prefigures contemporary

evidence concerning acoustics, consciousness and memory in the vegetal world. In the light of this scientific research, Tolkien's *olvar* might not be purely imaginative or metaphorical after all, but rooted, at least partially, in emerging empirical findings. As an aspect of their behavioral ecology, plants have been shown to emit and respond to sound frequencies (Gagliano; Gagliano, Mancuso and Robert).

In this paper, recent research into plant science proffers a framework for investigating the plants of Middle-earth. Two divergent examples establish the range of representation in Tolkien's vegetal realm. The first example comprises Tolkien's sonic trees and arborescent beings, including Old Man Willow, huorns and ents. So as to highlight differences of representation, the second focuses on the healing herb *athelas*, also known as *kingsfoil*. This plant does not vocalize like the trees but effuses fragrantly and employs non-sonic, multi-sensory modes of communication. Using recent scientific research as a foundation for textual analysis, the distinction between *extrinsic* and *intrinsic* plant capacities emerges. Ultimately, Tolkien's affection for plants is not without its shortcomings. An arborescent environmental ethics privileges venerable trees (conferring to them the ability to vocalise) and bars herbaceous plants from similar modes of consciousness and memory through the intentional use of sound. Despite Tolkien's sympathy for the vegetal and the valuing of plant intelligence in his fictional universe, his tree-based ethics internalises an early modern Neoplatonic chain-of-being conceptualisation of the botanical world that places trees well above herbaceous plants.

Vegetal Intelligence on Earth and Middle-earth

The ascription of intelligence to trees through their ability to speak can be traced to the prehistorical world, or Arda, of Tolkien's legendarium. Yavanna is the creation divinity responsible for growth and life in Arda. Yavanna, whose name means "Giver of Fruits" (Tolkien, *The Silmarillion* 27), made the first *kelvar* and *olvar* in Middle-earth. She is famous for creating The Two Trees of Valinor known as Telperion (the elder of the two whose flowers emit silver light) and Laurelin (with golden leaves) (Tyler 647). Yavanna evokes the fertility goddess figure of world mythologies, notably the Old Norse goddess Freya and the Roman Venus (Dickerson and Evans 120). Through Yavanna's prayers, all plant and animal life comes into existence, but her special affinity is for trees. In *The Silmarillion*, Tolkien describes her as: "the lover of all things that grow in the earth, and all their countless forms she holds in her mind, from the trees like towers in forests long ago to the moss upon stones or the small and secret things in the mould" (27). Into the barren terrain of Arda, Yavanna propagates seeds that germinate into a variety of "growing things great and small, mosses and grasses and great ferns, and trees whose tops were crowned with cloud as if they were living mountains" (Tolkien, *The Silmarillion* 35). In addition to disseminating seeds, Yavanna is able to assume an arboreal form herself, appearing sometimes as "a tree under heaven, crowned with the Sun" (Tolkien, *The Silmarillion* 28). After the mighty spirit Melkor brought widespread devastation to Arda, Yavanna laments the fate of the trees to Manwë, lord of the creation

beings known as Ainur (of which she is one). She implores Manwë to bestow the power of speech on trees: "Would that the trees might speak on behalf of all things that have roots, and punish those that wrong them!" (Tolkien, *The Silmarillion* 45). At first considering her appeal a "strange thought," Manwë is then reassured by Yavanna that the great trees already possess the capacity for divine song, having intoned their praises to Ilúvatar, the Creator, during the making of the clouds and rain (Tolkien, *The Silmarillion* 45–46). Yavanna's request for a guardian of the trees is granted by Manwë. He creates the arborescent ents, the "Shepherds of the Trees" including Treebeard, who protect the forest from harm and bear the gift of vocalisation.

Yavanna favors the trees of Middle-earth. The arborescent ents speak on behalf of the forest and to ensure its longevity. However, some trees, notably Old Man Willow, can vocalise without the intervention of other beings, raising the possibility of intrinsic consciousness and memory in the botanical legendarium. Although devised for a fictional universe, Tolkien's singing trees have some empirical underpinnings. A body of evidence from contemporary plant science recognises plants as greatly sensitive organisms that "perceive, assess, interact and even facilitate each other's life by actively acquiring information from their environment" (Gagliano, Mancuso and Robert 3). In particular, *plant bioacoustics* describes their perception and production of sound, demonstrating that plants emit sonic patterns and modify their behaviours in response to received auditory stimuli (Gagliano; Gagliano, Mancuso and Robert). Although "vanishingly small," plant acoustic emissions can take the form of "substrate vibrations or airborne sounds" (Gagliano, Mancuso and Robert 1). This understanding of sound ecology counters the conventional bioacoustic model that tends to attribute the vocalisations of plants to sudden pressure changes in their water systems. Historically, sound in plants has been regarded as incidental. This reflects the dominance of the chemical model of plant communication, based on hormonal emissions. In contrast, recent bioacoustic research suggests that vocalisation is an active process that facilitates more efficient signalling than chemical transmission in plants. Sound serves an ecological function with consequences for fitness and as part of the plant's evolutionary constitution (Gagliano 1).

An active model of phytoacoustics counters the prevalence of the chemical messaging paradigm and supports the broader reinterpretation of plants. Other scientists argue that plants exhibit features of intelligent behaviour (Trewavas), including the ability to learn and remember (Gagliano et al., "Experience Teaches"). The concepts of plant learning and memory were first put forward by the Bengali biologist Jagadish Chandra Bose (1858–1937), who also suggested that plants have nervous systems though they lack nerves and neurons (Trewavas 18). Part of the adaptive behaviour of a plant is mnemonic, involving the ability to recall and respond to biological information (Gagliano et al., "Experience Teaches" 63–64). Species such as *Mimosa pudica* even display long-term recall, in which "an enduring memory of a past event" (Gagliano et al., "Experience Teaches" 69) entails responding to cues and altering behaviours to enhance survival. Trewavas states that: "No wild plant could survive without a memory of its current perceived signals or without a cumulative memory that

collates its past information experience and integrates it with present conditions so that the probabilities of potential futures could be assessed" (90). Whereas traditional learning research in biology, based on neuronal processes, excludes organisms like plants from the behavioural domain of learning, Tolkien does not.

The vocalisations of some Middle-earth trees and arborescent beings bestow—at least on this segment of the vegetal realm—aspects of behaviour through memory and learning. Within Tolkien's botanical mythologisation inheres the freedom of imagination and thinking necessary to reconceptualise the capacities of plants and to disrupt narrow, animalistic paradigms of intelligence. However, this potential is only partially realised in Tolkien's work and is, instead, constrained by an arboreal ethics. Recent scholarship in plant studies critiques the historically prevailing attitudes toward plants in the disciplines of science, philosophy, and literature (for example, Hall; Marder; Ryan). Plants have been considered the passive elements of landscapes (ontologically liminal, somewhere between rock and animal); aesthetic features of scenery (with trees and other charismatic forms most appreciated); inert materials of construction (or, in Heidegger's terms, "standing reserve"); or biochemical constituents exploited as food, fibres, or medicines (the utilitarian, ethno-pharmaceutical model of plants as resources).

Yet, plants constitute the vast majority of the world's living things; the global terrestrial plant biomass (*phytomass*) might be one-thousand times greater than animal biomass (*zoomass*), although estimates are highly variable and measuring techniques unreliable (Smil 80). As indicated by the linkage between learning and neuronal systems, zoocentric biases against plants can marginalise their real capacities. Informed by research into plant intelligence and behaviour, critical studies of the vegetal call into question conceptualisations of plants that are founded on their presumed deficiencies. As plants are shown to manifest attributes of intelligent behaviour, their ethical representation should become a more pressing concern.

Considering this background, it is productive, then, to discriminate in broad terms between the *extrinsic* and *intrinsic* capacities of plants. The first category, *extrinsic*, describes those capacities registered as environmental elements or other living beings exerting force upon plants. The second category, *intrinsic*, refers to those attributes generated actively by plants in relation to their surroundings. Let us consider the value of this typology. As we have seen, bioacoustics differentiates between the reception, detection and emission of sound by plants. On the one hand, there is receptivity to acoustic signals from the environment; on the other, there is the generation and moderation of sound by plants. The latter implies an active sonicity that influences the responses of other organisms and supports the adaptation of "the plant" (the living organism and its species) over time. Research indicates that plants have the ability to perceive vibrations and change their behaviours in response to acoustic frequencies (Gagliano, Mancuso and Robert 2). In contrast, a notion of phytoacoustics as passive describes the vocalisations of trees as the sound of the wind through their leaves, as the thump of hail pelting their canopies or even the sudden change in water tension within the plant. The rustling of leaves, hail that strikes on canopies or changes in internal tension are mechanical rationalisations of sound in which things (*i.e.*, air, water,

pressure) act upon the plant—in this sense, they are largely extrinsic factors affecting sound. However, the admittedly “vanishingly small” frequencies used by trees to negotiate their life-worlds constitute an intrinsic form of sound, in which plants exert poietic forces upon their environments. Intrinsic capacities are phytocentric (or, at least, ecocentric) in that they engage a positive conceptualisation in which plants *can* actuate through the modes that are particular to them. In *The Fellowship of the Ring*, the tension between intrinsic and extrinsic qualities surfaces as the hobbits consider the uncanny trees of the Old Forest. Merry observes that

the Forest *is* queer. Everything in it is very much more alive, more aware of what is going on [...]. I thought all the trees were whispering to each other, passing news and plots along in an unintelligible language; and the branches swayed and groped without any wind. (*The Fellowship* 108)

In this passage, consciousness is linked to the vocalisations of the trees. Their whispering is not a mechanical result—for instance, the friction of the wind over the tree. The evidence observed by Merry and Pippin is that the branches sway despite the wind’s absence. Hence, the forest’s awareness of the hobbits is connected to its intrinsic, though indecipherable, language—which has its provenance within the trees themselves. The obverse of hobbit (or human) consciousness of the forest is the forest’s self-awareness and the actions of hobbits (or humans) within it. Similarly, there are the hobbits’ recollections of the forest—the memories other conscious beings have in relation to the trees—but also the forest’s remembrance of its past abuses, signifying an inherent (i.e., intrinsic) capacity for vegetal memory. These themes and distinctions, extending plant science to plant representation, are crucial to understanding the example of Old Man Willow.

Old Man Willow as the Embodiment of Active Nature

The contrast between intrinsic and extrinsic plant faculties aligns with Michael Brisbois’s distinction between passive and active nature in Tolkien’s work (203). While recognising the limitations of this binary, Brisbois characterises *passive* as referring to the forms of nature that are most integral to Middle-earth narratives. Although not necessarily a pejorative construction of nature as “inert or stagnant,” passive nature is a “less manifest force” that provides realist, moral and symbolic anchor points (Brisbois 204). By comparison, *active* nature includes “fantastic” beings (such as trees, ents, and huorns) and elements that more directly and intensively affect the course of the narrative. Echoing my notion of intrinsic plant capacities, active nature exhibits qualities of perspective, intelligence, and sentience (ibid.). Brisbois further divides these categories in four ways. *Passive* includes “essential” nature underlying the realistic features of Middle-earth and “ambient nature” evoking an atmosphere of morality, divinity, or spirituality (ibid.). Additionally, *active* comprises “independent” nature that is intelligent but reclusive, living apart from culture, while “wrathful” nature is marked by aggressiveness and malicious interaction with Middle-earth inhabitants (208). In less

typological terms but nevertheless raising the passive/active distinction, Hazell comments that

not all trees in Middle-earth are animated. Frequently they are unidentified and form part of the landscape and occasionally serve functional purposes as landmarks, vantage points, protection from weather and visibility, sleeping quarters, safety from attack, and even battering rams as used by the Orcs at Helm's Deep. (68)

Hazell implies that while some *olvar* exhibit intelligence, consciousness, sentience and memory, as expressions of active nature with intrinsic capacities, others are exclusively acted upon by Middle-earth's denizens as essential or ambient nature. Thus, there are degrees of plant liveliness in Tolkien's legendarium, from common diminutive herbs without vocalisations to lofty trees communicating their presence and states of mind (Walker 45). In *The Fellowship of the Ring*, as the company left the safety of the garden Lórien, "in the trees above them many voices were murmuring and singing" (Tolkien, *The Fellowship* 361). Moreover, in *The Hobbit*, Bilbo Baggins and companions observe the percipience of Mirkwood Forest as "the trees leaned over them and listened" (Tolkien, *The Hobbit* 130).

These differences—between active/passive nature, intrinsic/extrinsic capacities—are especially evident in Old Man Willow and his spiteful singing. The Old Forest of Eriador is a vestige of an immense primeval tract of the Elder Days (Tolkien, *The Fellowship* 107–120). While most of the vegetation—including quintessentially European and North American grasses, nettles, thistles, hemlocks, pines, oaks and ashes—is "passive essential" nature, other trees are mobile, conscious, and sentient. As intelligent beings with intrinsic faculties, the willow trees in particular hold memories of having been overrun and destroyed, and thus harbor malice toward freely moving beings, such as the hobbits (Hazell 73). We are told that long ago, "the hobbits came and cut down hundreds of trees, and made a great bonfire in the Forest" (Tolkien, *The Fellowship* 108). Old Man Willow, who lives on the banks of the Withywindle ("Winding-willow") River, is the most commanding of the trees—a fantastic being—and embodies the malevolence of the forest, or what Brisbois (208) calls the "active wrathful" nature of Middle-earth. He is the first antagonist encountered by the hobbits as they venture out of the Shire, past the protection of the Hedge, and into the forest. As the hobbits enter the Withywindle Valley, they perceive the comforting *extrinsic* sounds of the forest, as the wind acts upon the vegetation: "the reeds were rustling, and the willow-boughs were creaking" (Tolkien, *The Fellowship* 113). However, their moment of respite in the dreary and menacing forest is interrupted by Old Man Willow's sleep-inducing lull:

Suddenly Frodo himself felt sleep overwhelming him. His head swam. There now seemed hardly a sound in the air. The flies had stopped buzzing. Only a gentle noise on the edge of hearing, a soft fluttering as of a song half whispered, seemed to stir in the boughs above. He lifted his heavy eyes and saw leaning over him a huge willow-tree, old and hoary. (Tolkien, *The Fellowship* 114)

Here, Frodo's perception shifts from the wind as an acoustic agent to sound as a sensation that registers in his body as an opiate does. The narrative tension in the Old

Forest is indeed one of sonicity, in which extrinsic sound (the creaking boughs) transforms unexpectedly into intrinsic vocalisations (the soporific Siren song of the willow). The latter signify the sentience of the forest. When Frodo kicks a tree in protest against their malevolence, “a hardly perceptible shiver ran through the stem and up into the branches” accompanied by its faint laughter (Tolkien, *The Fellowship* 115). After attempting to induce sleep in the hobbits, the willow tries to strangle Merry and Pippin, overpowering their ability to speak with his increasingly clamorous and agitated voice.

However, the intervention of Tom Bombadil, the eldest of all creatures in Middle-earth, saves the hobbits and thwarts the willows with song: “I’ll sing his roots off. I’ll sing a wind up and blow leaf and branch away. Old Man Willow!” (Tolkien, *The Fellowship* 117). Tom Bombadil admonishes Old Man Willow but suggests that, although his animosity is justified, his actions against the hobbits are reprehensible (Brisbois 209). The Great Willow threatens mobile creatures because of his memory of the forest’s abuse. The active wrathful nature of the trees is, therefore, linked to habitat destruction. Tom’s elaboration of the environmental history of the forest seems to engender empathy among the hobbits for the willow’s plight: “As they listened, they began to understand the lives of the Forest, apart from themselves, indeed to feel themselves as the strangers where all other things were at home” (Tolkien, *The Fellowship* 127–128). Indeed, trees embody ecological ethics in Tolkien’s work (Brisbois 200). In a letter to the *Daily Telegraph* in 1972, Tolkien states that “I take the part of trees as against all their enemies [...] the Old Forest was hostile to two legged creatures because of the memory of many injuries” (Tolkien, *Letters* 419). He also explains that the trees in his legendarium are “awakening to consciousness of themselves” (Tolkien, *Letters* 419)—and an integral aspect of their awakening is their intrinsic ability to vocalise.

The fathers of the trees are the ents—the conscious arborescent beings created by Manwë, at Yavanna’s request, to shield the forest from further injury. Old Man Willow is closely related to the ents and huorns, especially through their shared capacities of aurality (speaking, singing, laughing, shuddering) and locomotion. Like ents, huorns resemble trees and have the power of speech and mobility. As either sentient trees or regressed ents (their exact ontology is not clear), huorns can move quickly from place to place under the shadows of true trees, but are always under the control of ents (Tyler 295). In the language *quenya*, the huorns of Fanghorn Forest, located on the eastern side of the Misty Mountains, were previously known as *galbedirs*, *ornomi*, and *lamorni*, all of which mean “talking trees.” The name *lamorni* is derived from *lam* for “sound” and *orni* for “trees.” Thus, the huorns are literally “trees with voices” (Tolkien, *The History* 55). According to the ent Treebeard, the chief guardian of Fanghorn Forest, the huorns, as Merry relates, “still have voices, and can speak with the Ents [...] but they have become queer and wild” (Tolkien, *The Two Towers* 551). Ents “have become almost like trees, at least to look at. They stand here and there in the wood or under its eaves, silent, watching endlessly over the trees” (Tolkien, *The Two Towers* 551). While other plants in Middle-earth possess supernatural or healing abilities, it is this tribe of beings—ents and huorns, including Old Man Willow—who speak in this way. But their speaking tends to come as an inversion of expectation to Middle-earth inhabitants, as “the rustling of the

wind” turns into the horror of “great groping trees all around you” (Tolkien, *The Two Towers* 551); as extrinsic becomes intrinsic sound. This reflects an assertion by ecocritic Timothy Clark that “the natural world is full of indicators, signs and communications, associated with diverse and (to us) mostly opaque modes of intentionality and reference” (53). The opacity of groping and speaking trees, even to the hobbits and others, is a significant narrative dimension of the legendarium.

Hazell (74) asserts that Old Man Willow’s vocalisations reflect the behavior of actual willows as their leaves and limbs “sigh” with the wind. However, such a statement seems to gloss over Tolkien’s intention to endow trees with consciousness so they might resist their exploitation by two-legged creatures. It also neglects the rich mythological traditions from which Tolkien might have drawn in devising the active Middle-earth plant legendarium. Alongside his use of sonorous willows as imaginative elements and ethical flashpoints, Tolkien was fully immersed in a literary body in which vocal trees are not unusual. It is well-known that Tolkien was inspired by early Germanic, especially Old English (mid-5th century to the Norman conquest of England in 1066), literature, poetry, and mythology. Documented influences include *Beowulf* (700–1000 AD), Norse sagas, such as the *Völsunga* and *Hervarar* and the Middle High German epic poem *Nibelungenlied* (all three dating to the 13th century)(Carpenter 138–139, 144–145, 202). Tolkien also acknowledged the influence of non-Germanic sources, such as Sophocles’ play *Oedipus the King* (first performed in 429 BC) and the nineteenth-century Finnish epic *The Kalevala*. For example, the character Väinämöinen from the latter was the model for the wizard Gandalf of *The Lord of the Rings* (Snodgrass 161–162). Additionally, in *Myth of the First Trees*, Väinämöinen directs Sampsa Pellervoinen to sow seeds on a barren landscape. After struggling to germinate, the oaks eventually proliferate across the country, preparing the ground for herbs, flowers, berries, and agricultural crops (Lönnrot 11). Here, oaks lack voices, but they are integral to creation.

Tolkien scholars have suggested that trees are the most potent symbols in Middle-earth (Dickerson 73–74). Therefore it is crucial to consider the possible mythological underpinnings of Middle-earth’s speaking trees, bearing in mind extrinsic and intrinsic acoustics. For example, in *Metamorphoses* (8 AD) by the Roman poet Ovid, based on Virgil’s *Georgics* (29 BC), the musician Orpheus laments the loss of Eurydice to the sting of an adder and strums his lyre in the abandonment of his grief, sitting atop a verdant hill. The downhearted notes of the instrument give provenance to a forest of oaks, poplars, beech, hazel, laurels, ash, fir, maples, willows, myrtles, and elms (Ovid). The story of Orpheus associates music with prolific arboreal growth, but does not indicate if the trees themselves vocalised. However, at the Greek sanctuary of Dodona at Epirus, an oracular oak was the medium for revering Zeus. In the rustling of the leaves on a still windless day, Zeus announced himself. The Sacred Oak, an ilex oak (*Quercus ilex*), is thought to have lived until 180 AD with a priestess regularly consecrating Dodona until about the third century. The crepitation of the leaves without the wind’s external manipulation implies intrinsic movement and vocalization connected to its supernatural agency as the voice of Zeus (Varner 22). There are also numerous folk tales, apart from these Greco-Roman examples, of vocal spirits in forests. For example,

the Scandinavian sprite Huldra lives in a pine grove and sings a lament called *huldrslaat* in a “clear and sweet” voice (Goddard 180). The pine forest is the medium for sound, rather than the means of its production.

I suggest that such currents of mythology most likely figured into Tolkien's representations of singing trees and, specifically, Old Man Willow. Of course, a segment of this tree lore—to which Tolkien could have been exposed—is specific to willows. For instance, in the second century AD, the Greek geographer Pausanias, in his book *Description of Greece*, discussed a painting of Orpheus grasping a lute in one hand and a willow branch in the other, again relating willows to music (Pausanias 545). Willows lend their name to the River Helicon, described by Pausanias as disappearing underground then rising again before descending to the sea. The Maenads who killed Orpheus attempted to wash their hands in the river, but it disappeared beneath the ground to prevent them from doing so (Pausanias 481). In Greek mythology, Itonus or “Willow Man,” son of Amphictyon and husband of the nymph Melanippe, established a sanctuary (or willow cult) of Athena, the goddess of wisdom, courage, and law (Graves 47). Furthermore, Circe, the Greek goddess of magic and daughter of Helios, kept a willow grove where the tree was associated with the moon and known for its healing properties. A more contemporaneous source for Tolkien was the work of English book illustrator Arthur Rackham, whose mythologised drawings of trees, including those in Kenneth Grahame's *The Wind in the Willows*, influenced the depiction of Old Man Willow as active nature (Carpenter 162).

Athelas as Non-Sonic Healing Plant

As a “fantastic” plant being with the powers of speech and locomotion, Old Man Willow is quintessentially active nature, bearing attributes of percipience and sentience. Sound is the dominant sense around which his intelligence is constructed. To a great extent, the uncanniness of Old Man Willow relates to his being heard before being seen, as the hobbits move through The Old Forest. Not merely “the wind in the willows,” to echo Grahame and Rackham above, his faculty of vocalisation involves intention (malice) and decision-making (attempting to drown, anaesthetise, and garrote them) (Flieger). Turning from sound as a principle of intelligence in Middle-earth trees, this section will examine Tolkien's use of other sensorialities in representing the communicative modes of plants. Athelas, or kingsfoil, is one of the most powerful healing herbs in Tolkien's legendarium, along with the tobacco-like pipe-weed, mentioned in the introduction to this article (Hazell 31). Whereas Old Man Willow expresses wrathful nature, kingsfoil heals the inhabitants of Middle-earth of a variety of afflictions. Kingsfoil's intrinsic capacities derive from taste and smell, not from an audiocentric logos. As a medicinal plant that lacks vocalisation, kingsfoil epitomises Tolkien's evocation of non-aural and non-visual senses (described in the next section as “autocentric” senses) in the plant legendarium. I argue that Tolkien privileges the sonicity of Old Man Willow and denies vocalisation to non-arboreal plants, for possible reasons to be elaborated.

In Tolkien's legendarium, kingsfoil is a plant of remarkable therapeutic virtue. The scent of its long leaves acts as an analgesic, antihemorrhagic, and diaphoretic, relieving pain, stemming bleeding, and warming the body, respectively. *Kingsfoil* (meaning "King's Leaf," from the Old French word *foil* for "leaf") is the name given by the inhabitants of the kingdom Gondor to the herb *athelas* (Tyler 315). The name *athelas* most likely derives from the Middle English word *athel*, meaning noble by birth or character (related to the Anglosaxon term *ævele* for "noble") and *atheling* for "prince" (Hazell 32–33). In the First Age, Huan the Hound of Valinor (the greatest dog of the epoch) gifted the beautiful maiden Lúthien with a plant to heal the chieftain Beren of an arrow wound (Tolkien, *The History* 269). The Númenoreans (the denizens of Westeros) brought the herb to Middle-earth during a three-thousand year period known to the Elves and Dúnedain as *Second Age*. Connected to the "People-of-the-West," kingsfoil is found in the North only where Númenoreans have walked, paused, or camped. The Númenoreans adopted the Valinorean botanical name *asëa aranion* (meaning "leaf of the kings") for *athelas*. Known in the southern kingdom Gondoras as *kingsfoil*, the species grew prolifically. Its healing attributes were unknown or forgotten there, but its leaves were valued for their fragrance (Tyler 42). After Frodo is wounded by the menacing Nazgûl (or Ringwraith in the Black Speech of Mordor) on the hill Weathertop, the healer and chieftain Aragorn (also known as Strider) treats him with *athelas*:

He crushed a leaf in his fingers, and it gave out a sweet and pungent fragrance. 'It is fortunate that I could find it, for it is a healing plant that the Men of the West brought to Middle-earth [...] it has great virtues, but over such a wound as this its healing powers may be small'. (Tolkien, *The Fellowship* 192)

Aragorn bathes Frodo's shoulder in a boiled infusion of *athelas*. The herb allays the pain and relieves the sensation of coldness overcoming Frodo's body after the injury, but the party still has to seek out the master Elrond to heal the wound completely. Meanwhile, despite the herb's insufficiency as a cure in this instance, its refreshing fragrance soothes and cleanses the minds of the anxious party.

The chief healing characteristic of *athelas* is its pleasant aroma. The most detailed description of the herb comes in "The Houses of Healing" from *The Return of the King*. The healers of the southern kingdom of Gondor care for the injured and sick at the Houses of Healing in Minas Tirith. Aragorn requests *athelas* in treating Lady Éowyn, Lord Faramir, and Merry after the Battle of the Pelennor Fields in the Third Age. Ioreth, the elderly nurse of Minas Tirith, responds that she "never heard that it had any great virtue" though its smell is sweet and wholesome (Tolkien, *The Return* 846). After the herb master of the House declares he knows nothing of the weed other than its use in sweetening the air and as a folkloric remedy for headaches, Tolkien attributes the loss of traditional herbal wisdom to its characterisation as old wives' tales and its reduction to quaint rhymes:

When the black breath blows
and death's shadow grows
and all lights pass,

comes athelas! come athelas!
Life to the dying
In the king's hand lying! (Tolkien, *The Return* 847)

Eventually presented with six dried leaves, Aragorn crushes the herb, filling the room with a fragrance “like a memory of dewy mornings of unshadowed sun” (Tolkien, *The Return* 847). Aragorn applies the steam of two boiled athelas leaves to Éowyn's brow, restoring warmth and strength to her body. He also treats Merry, infusing the room with the fragrance of athelas, “the scent of orchards, and of heather in the sunshine full of bees” (Tolkien, *The Return* 851). The healing qualities of athelas reflect Tolkien's conception of good, whereas the trees of The Old Forest are personifications of evil (Crabbe 159–160). While sound is associated with the malevolent trees—their agony and malice against their destroyers; their active wrath—smell is linked to healing and purity. Moreover, the recollections of athelas spoken by the herb master, nurse, and others imply its mislaid healing tradition—in which the herb is an object of use and memory—but, in a spirit of defiance, Old Man Willow actively *remembers* the abuses committed against the forest.

Rather than constructing the communicative capacities of the vegetal world wholly in sonic terms, it is possible to conceive of the diverse chemical vocabularies of plants (Chamovitz). Researchers have described an array of volatile chemicals that enable communication within a plant and between a plant and other organisms (Karban). Several thousand volatile compounds serve a number of roles, including governing interactions with herbivores, pathogens, and pollinators (Raguso and Kessler). Organic cocktails of terpenes, benzenes, esters, or amines, used for antagonistic or mutualistic purposes, create the fragrance of a flower or crushed leaf (Séquin 81). Hence, while sound marks Old Man Willow's consciousness, smell signifies the intelligence of athelas; both constitute the *voicing* of Tolkien's botanical legendarium. Whereas the willow vocalizes (speaks, sings, whispers, mutters) in terms that mirror the human, athelas speaks (inverted commas not required) through an olfactory lexicon—a vocabulary of direct sensory affect related to its healing capacity and evocation of memory. As research suggests, odor-evoked memories, those triggered by olfactory experiences, are older and stronger than memories elicited through verbal and visual cues (Willander and Larsson). It is mistaken, then, to conceptualise athelas and other fragrant plants as ambient passive nature, in Brisbois' terms. For instance, the thickets of *aeglos* on the lower slopes of the towering hill Amon Rûdh are described as “long-legged [creating] a gloom filled with a sweet scent” (Tolkien, *Unfinished* 99). But we have seen that, as an intrinsic faculty, the fragrance of a plant is not merely atmospheric (here, gloomy), but supportive of a plant's diverse adaptive responses to the environment.

The fragrance of athelas is sweet, invigorating, and cleansing. Its characteristics evoke those of an aromatic herbaceous perennial with which Tolkien surely would have been familiar: yarrow (*Achillea millefolium*). Known folklorically as *herbal militaris*, soldier's woundwort, nosebleed plant, milfoil, and thousand leaf, yarrow is a common

wildflower and medicinal species of the English countryside. The yarrow genus, *Achillea*, derives from Achilles, the Greek hero of the Trojan War who is said to have used yarrow to heal the wounds of his soldiers (Watts 440). When Paris shot Achilles in the heel with an arrow, no treatment, including yarrow, was adequate enough to save him. There are striking parallels between the tale of Achilles and Tolkien's maiden Lúthien treating the arrow wound of chieftain Beren with athelas during the First Age. When Curufin attempted to shoot Lúthien with an arrow, Beren intervened and was struck in the chest. The hound Huan brought Lúthien a herb from the forest, which "stancheth Beren's wound" (Tolkien, *The Silmarillion* 178). Unlike Achilles who perished, Beren survived through the power of athelas as well as Lúthien's "arts and by her love" (178). Like athelas, yarrow is a styptic that halts bleeding. In *The Herball or Generall Historie of Plantes*, the sixteenth-century English herbalist John Gerard observed that "the leaves of yarrow doth close up wounds, and keepeth them from inflammation, or fiery feeling: it stancheth blood in any part of the body, and it is likewise put into bathes for women to fit in" (Gerard 915). The warming qualities of athelas—evident when Aragorn bathed Frodo's shoulder after the wound inflicted by Nazgûl—are comparable to yarrow's diaphoretic (sweat-inducing) properties that are effective in treating flu and other febrile conditions. In addition to its medical uses, yarrow has been favoured for its capacity to disperse evil spirits and divine the future in many systems of folklore around the world (Watts 440).

Beyond an Arborescent Ethics: Listening Without Hearing

The foregoing discussion implies that these kinds of folkloric knowledge traditions—in which herbaceous plants express their being-in-the-world without vocalisation—are tacit in Tolkien's legendarium. However, represented as passive nature with extrinsic capacities, plants such as athelas (and aeglos) are *acted upon* (gathered, processed, applied) as healing agents or medicinal substances. The privileging of sound (i.e., the power of vocalization) attributed to the willow eclipses the "opaque modes of intentionality and reference" (Clark 53) through which the non-arboreal plant world articulates its sensoriality, intelligence, consciousness, and memory. The divergence between the willow as bearer of percipience and athelas as a source of healing (calmness, pleasantness) reflects broader philosophical and historical divergences in the valuation of the senses. For example, Kant argues that smell is the lowest sense, associated with stench, filth, decay and the disintegration of human will. A smell (nauseating or fragrant) penetrates the body largely against conscious human directive; it registers without the intervention of perception as thinking (Kant 43). The developmental psychologist Ernest Schachtel (85) adopts a Kantian view, distinguishing between the allocentric (vision and hearing) and the autocentric (gustatory, olfactory, thermal, proprioceptive) senses. For Schachtel, as for Kant, smell is lower, primitive, and "objectless." Whereas the allocentric senses are intellectual and spiritual, the autocentric senses lack the power of objectification and are physically implicated (Schachtel 89). This dichotomy manifests in Tolkien's representation of Old Man Willow (a proper noun,

a plant persona) and athelas (in the lower case; an undifferentiated, unthinking but fragrant mass).

Besides privileging the allocentric, Tolkien's ethics of nature internalise an arborescent ethics (for example, Brisbois; Fliieger). Deleuze and Guattari call into question the hierarchical basis of arborescence as "the structure or network gridding the possible." For these thinkers, the tree expresses "rigid segmentarity" and "is the knot of arborescence or principle of dichotomy" (Deleuze and Guattari 234). Arborescence encodes Enlightenment ideals of linear progress, pronounced in the taxonomic paradigm of natural science. Of course, we still love trees regardless of their arborescence, but, in contrast, the rhizome enacts horizontality and a multitude of possible unordered interconnections without hierarchies: "the rhizome, the opposite of arborescence; breaks away from arborescence" (Deleuze and Guattari 324). Aside from aspens and a few other tree species, rhizomes are principally associated with the world of herbaceous plants, such as the medicinal herbs ginseng, goldenseal, and yarrow. Tolkien's assignation of intelligent qualities to trees mirrors the structure of the tree itself, "gridding the possible," whereas the intelligence of healing plants is muddled in the emphasis on their utilitarian value. Why shouldn't herbs like athelas have the ability to assert their consciousness as active narrative figures in the legendarium, without necessarily communicating in vocal terms? Why shouldn't they too speak of the mistreatments that historically beset them and, in doing so, manifest their capacities for memory and affect, as science has now begun to confirm and folklore has already insinuated?

Alongside the mythological currents informing his legendarium, Tolkien's plant chain-of-being is an outcome of his fellow feeling for the iconic trees of the pastoral English landscape (Rackham). In an acerbic letter to the *Daily Telegraph* (previously quoted in this article), Tolkien laments "the destruction, torture and murder of trees perpetrated by private individuals and minor official bodies. The savage sound of the electric saw is never silent wherever trees are still found growing" (Tolkien 420). Perhaps to defy the savage sound of the saw Tolkien devised the savage sounds of the willow in *The Old Forest*. But what of the torture and murder of wetlands plants, ferns, grasses and other less stately, more diminutive herbaceous members of the forest and fields? On this topic, Tolkien is less outspoken (indeed he is silent). Perhaps this is because yarrow and other common herbal plants are weeds—those species that "obstruct our plans, and our tidy maps of the world" and inhabit "shabby surroundings" (Mabey 1, 3). They co-exist with us, rather than in forested enclaves outside of "culture." While Tolkien's empathy for trees is laudable—and surely a reason why his works are important to us today in the Anthropocene—we must bear in mind the other green things with which we are in constant symbiotic relationship. They have their own modes of expression and manners of articulation, apart from vocalisation, if only we could be attentive enough to listen without hearing.

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