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The Perfect Tree: The American Chestnut Tree in American Culture, Economics, and Science in the Nineteenth and Twentieth Centuries

Sarah Heavren
Providence College

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by
Sarah Heavren
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Department of History
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DEDICATION

To my family, my friends, Saint Francis of Assisi, my own tree, and the tree-loving community.

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Introduction

The American chestnut tree was formerly one of the natural wonders of the American soil because of its versatility, size, and reliability. The tree was a model of the abundance, resourcefulness, and resilience of the land. However, few people reminisce today about the majestic branches and tasteful chestnuts of the trees because of the fungal blight that decimated the wild population in the early twentieth century. Making up a sizeable percentage of the trees in forests reaching from Maine to Georgia along the Appalachian region, the American chestnut tree played a vital role in environmental stability as well as in American settlement, economics, and expansion. Although nearly forgotten, the American chestnut tree has not faded into oblivion because many scientists have been conducting genetic experiments for decades to produce a blight-resistant American chestnut tree. Because the establishment of the American Chestnut Foundation in the 1980s has helped raise awareness about the decimation of the forest giants, scholars have focused mainly on the science behind the fungus, *Cryphonectria parasitica*, that infects the trees, experimental practices to save or protect the trees, and genetic approaches to creating a blight resistant tree. To understand the environmental and ecological impact of the loss of the trees, some scholars have written about the changes in landscape and wildlife demographics that have resulted. Others have approached the topic from cultural and economic standpoints, studying the effects of the blight on the people who formerly depended on the trees or lived in the mountain regions the trees populated. Many scholars concur that there were considerable social, economic, and

environmental consequences that resulted from the fall of the American chestnut tree, but there is need for deeper exploration of the cultural implications and the relationship between the tree and regional identity.

In his essay "The American Chestnut Blight: An Agent of Biological & Cultural Catastrophe," Eddie Lunsford discusses the nature of the chestnut blight while also examining methods used to control the fungus and hopes for the future of the American chestnut tree. According to Lunsford, American chestnut trees could live for up to 400 years. Their range spanned from Maine to Florida and extended as far west as the Mississippi River. While he acknowledges that the American chestnut tree was an important resource for its wood and its nuts, he maintains his commitment to the science of the issue and directs his focus on the fungus itself. Research confirms that there have been at least two widespread breakouts of the fungus *Cryphonectria parasitica* in North America, and many scientists agree that the fungus originated in Asia and was carried to North American when Asia-native chestnut species were brought over in shipments during the late-1800s.[1] In discussing the spread of and damage from the fungus, Lunsford writes, "By 1950, three to four billion mature *C. dentata* [American chestnut] trees had been killed."[2] The fungus has a unique ability to survive in a range of climates and produce both asexually and sexually. While early methods of controlling the fungus, which included using Bordeaux mixture, applying firefighting foam, or simply cutting down the trees, have had little success, there is hope in a genetic approach. Scientists are trying to find ways of genetically producing a blight-resistant American chestnut tree, but Lunsford doubts that much can be done

[1] Eddie Lunsford, "The American Chestnut Blight: An Agent of Biological & Cultural Catastrophe," *The American Biology Teacher* 61, no. 8 (October 1999): 588.

[2] Lunsford, "The American Chestnut Blight," 589.

for the wild American chestnut trees that are currently fighting to reclaim their place in the forest.[3] As do many scholars concerned with the American chestnut tree, Lunsford intertwines history and science to justify the significance of the tree and the nature of the multidisciplinary efforts to bring the tree back. He shows that the scientific experiments of the past have played an instrumental role in informing the scientific efforts of the present, creating a dialogue between history and science.

While Lunsford examines the relationship between science and history regarding the American chestnut blight, Donald E. Davis considers the intersection and alteration of the regional cultural and ecological roles that the American chestnut played. In his article "Historical Significance of American Chestnut to Appalachian Culture and Ecology," Davis explains that the American chestnut tree helped sustain settlements as well as the regional wildlife. He focuses on the Blue Ridge Mountains and the Cumberland Plateau because the tree's ability to survive at high altitudes allowed the mountain region to be habitable. Consequently, the American chestnut tree helped people develop a self-sustaining and environmentally dependent way of life that evolved into mountain culture.[4] The bounty of chestnuts that the trees produced served as a means for barter in the mountain communities, which shows that the mountain people, or inhabitants of the mountain communities, integrated the American chestnut tree into their culture. The tree's nuts also helped the pork industry thrive in an economically and financially sustainable way because farmers could inexpensively raise hogs by feeding them chestnuts, which made the meat more flavorful and desirable. The lumber industry notably benefitted because the tree's rot-resistant

[3] Lunsford, "The American Chestnut Blight," 589–90.

[4] Donald E. Davis, "Historical Significance of American Chestnut to Appalachian Culture and Ecology" (paper presented at the Conference on Restoration of American Chestnut to Forest Lands, 2005), 1.

wood made it “ideal for roofing shingles, telephone poles, ship masts, railroad ties and almost any other use requiring durable, long lasting timbers.”[5] However, Davis makes a key claim that the loss of the self-sufficient mountain way of life is connected to the demise of the American chestnut tree.[6] He attributes part of the responsibility of spreading the blight to woodsmen and loggers. Within ten years of reaching North Carolina, about one tenth of American chestnut trees in the state had been infected. Davis adds an interesting point that speaks to economic greed and environmental indifference, stating, “North Carolina lumbermen even used the imminently encroaching disease as a last-ditch effort to defeat the proposed Great Smoky Mountains National Park.”[7] Few lumbermen mourned the death of the trees because they knew that the wood of an infected tree was still salvageable up to ten years after it had been cut down.[8] The loss of the American chestnut tree had transformative ramifications on the mountain way of life. As Davis explains, “Sadly, the chestnut blight made it very unlikely that the Appalachian mountaineers would return to their more self-sufficient way of life. By the late 1930s, the mountaineer was more off the farmstead than on it, and the food and folkways of the region’s inhabitants were beginning to conspicuously change.”[9] While the demise of the American chestnut tree altered the landscape it had previously heavily populated, it also left the mountain people’s way of life vulnerable to the drastic changes brought by industrialization, resulting in the loss of a culture and way of life.

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[5] Davis, "Historical Significance of American Chestnut to Appalachian Culture and Ecology," 4.

[6] Davis, "Historical Significance of American Chestnut to Appalachian Culture and Ecology,"1.

[7] Davis, "Historical Significance of American Chestnut to Appalachian Culture and Ecology," 2.

[8] Davis, "Historical Significance of American Chestnut to Appalachian Culture and Ecology," 4.

[9] Davis, "Historical Significance of American Chestnut to Appalachian Culture and Ecology," 5.

In “Shenandoah Resettlements,” Gene Wilhelm adds more context to Davis’s discussion of the loss of mountain culture by focusing on the relocation of the mountain people during the formation of Shenandoah National Park, a situation that was only worsened by the chestnut blight. Shenandoah National Park was established in 1935, but it forced 465 mountain families (2,317 people total) to leave the region, inevitably altering their way of life. Their mountain culture depended upon having an intimate relationship with the land and relying on it for resources. Consequently, the American chestnut tree was so important to their mountain lifestyle. Wilhelm uses data from the Commonwealth of Virginia’s Evacuation and Subsistence Homestead Program, sponsored by the Federal Emergency Relief Administration, to account the socioeconomic and cultural effects that resettlement had on the mountain people. His research indicates that the resettlement process did not account for the environmental and cultural adjustments the people would have to make, leading to “cultural disharmony, stagnation, and eventually resettlement abandonment on the part of many mountain people.”[10] The lumber and mining industries as well as the development of the railroad system both changed the landscape and provided jobs for mountain people. However, mountain communities benefitted very little from the expanding lumber industry, and as the lumber, tanning, and textile industries overtook the region, the mountain folk faced industrial competition with which they could not compete.[11] According to Wilhelm, “The final destructive blow came to the mountain people and their economy in the early twentieth century as the infamous chestnut blight struck the region; silently and quickly it killed every mature chestnut tree in the mountains within fifteen years.”[12] Wilhelm explains the personal

[10] Gene J. Wilhelm, “Shenandoah Resettlements,” *Pioneer America* 14, no. 1 (1982): 15.

[11] Wilhelm, "Shenandoah Resettlements," 19–23.

[12] Wilhelm, "Shenandoah Resettlements," 23.

devastation that many of the mountain folk felt because of the psychological effects of the loss of the trees: “The mountain folk felt that as long as they had chestnut groves with their many assets of wood, bark, and nuts there was a chance for a new life. Now that opportunity vanished.”[13] By analyzing economics and mountain culture, Wilhelm shows that the loss of the American chestnut tree coincided with modernity’s threats to the mountain lifestyle, leaving many of the mountain people without an identity.

Susan Freinkel takes a holistic approach to the history and legacy of the American chestnut tree by intertwining history and science to explain the tree’s scientific, cultural, economic, political, and environmental significance. Freinkel documents that there are at least seven species of chestnut tree, with four having roots in Asia (the Chinese, Japanese, dwarf, and Chinese chinquapin) and three being native to North America (the Mutt-and-Jeff, the Allegheny, and the American).[14] The tough, independent self-starters who settled Appalachia had a special appreciation for the American chestnut trees. As she writes, “mountain families treated the chestnuts as a community resource, a bounty to be shared by all, like the abundant wild game, valuable ginseng, or juicy summer blackberries.”[15] However, it was not those who lived in the mountains, but a scientist in New York who first discovered the fungus. Hermann Merkel, the chief forester at the New York Zoological Park (now the Bronx Zoo) noticed the first infected American chestnut tree in the summer of 1904.[16] Unlike Wilhelm, Freinkel notes the cultural significance of the American chestnut tree in the northern region. In describing the whimsical

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[13] Wilhelm, "Shenandoah Resettlements," 23.

[14] Susan Freinkel, “Where There Are Chestnuts,” in *American Chestnut: The Life, Death, and Rebirth of a Perfect Tree*, 1st ed. (Berkeley and Los Angeles, CA: University of California Press, 2007), 14.

[15] Freinkel, "Where There Are Chestnuts," 20.

[16] Freinkel, “A New Scourge,” in *American Chestnut*, 28.

relationship between urban dwellers and the joys of collecting chestnuts, referred to as "chestnutting," Freinkel explains, "That awareness, honed through foraging was hardly necessary to survival in the city. Yet chestnutting helped sustain a connection to the natural world that was fast disappearing under ribbons of asphalt and walls of concrete."[17] The significance and novelty of the blight motivated scientists in New England and the Mid-Atlantic states to take action both in the lab and in politics. The U.S. Food and Drug administration established the Laboratory of Forest Pathology in 1907 to study the chestnut blight, among other tree diseases. The Pennsylvania Chestnut Tree Blight Commission conference assembled some of the leading plant scientists in the region as well as lumbermen, orchard-owners, and conservationists to discuss the issue of the blight. Freinkel refers to the conference as "a classic clash of politics and science" because there were some who felt the need to respond to the blight immediately to prevent further devastation, and there were others who did not think it was possible to curb the blight's rampage.[18] She quotes R. A. Pearson, the chairman of the Pennsylvania Chestnut Tree Blight Commission conference, who boldly declared, "'It is not the spirit of the Keystone State, nor the Empire State, nor the New England States, nor the many other great States that are represented here, to sit down and do nothing when catastrophies [*sic*] are upon us…That is not the way great questions are solved.'"[19] To Pearson, the issue required as much forwardness and daring as the production and implementation of steam power, a prime example of American innovation.[20] Freinkel details several blight response plans, such as cutting down any American chestnut trees that had the blight

[17] Freinkel,"A New Scourge," 40.

[18] Freinkel, "Let Us Not Talk about Impossibilities," in *American Chestnut,* 53.

[19] Freinkel, "Let Us Not Talk about Impossibilities," 54.

[20] Freinkel, "Let Us Not Talk about Impossibilities," 54.

or within an area of exposure, that brought little success. However, genetic research offered a potential solution. Scientist Arthur Graves speculated that there might be a way to make the American chestnut tree unappealing to the fungus. Combining his observations of the Chinese and Japanese species' resistance to the blight with his knowledge of Walter Van Fleet's research on interbreeding chestnut species in Washington, D.C., he hypothesized that there might be a way to create a resistant American chestnut tree.[21] Much of the work since then has aimed for Graves's goal of genetically producing a blight-resistant American chestnut tree. Through providing a detailed account of the history of the American chestnut tree, Freinkel reveals that the tree's story is multi-faceted because of its involvement in regional culture, economics, politics, and science.

Lunsford, Davis, Wilhelm, and Freinkel approach the American chestnut tree from various perspectives, including science, politics, economics, ecology, and culture. In many instances, their perspectives overlap because the American chestnut blight is an interdisciplinary issue that has affected different groups of people in varying and circumstantial ways. Despite the necessary dialogue among disciplines that accompanies studying the tree, there has been a lack of discussion about the cultural implications of the American chestnut tree in the lives of those who lived in New England and the Mid-Atlantic states. Because the people who lived in these regions had less of an immersive experience with the environment compared to those living in the Appalachian Mountains, their relationship with the American chestnut tree differed from the relationship that the mountain people had with it. Additionally, many of the scientific studies and efforts surrounding the blight emerged in and around New York, where the blight was first discovered, which indicates that the American chestnut tree was the subject of a growing interest in science. The print culture of the time allowed for the distribution of more knowledge and creativity, and

[21] Freinkel, "Rolling the Dice," in *American Chestnut,* 96.

the American chestnut tree made numerous appearances in literature during the nineteenth and early twentieth centuries. The subject of stories, poems, agricultural practices, and scientific articles, the American chestnut tree's varied presence in printed materials in New England and the Mid-Atlantic states indicated that the people in those states had their own regionally defined perspective of the American chestnut tree, one that involved literary symbolism, agricultural and economic interests, and a growing propensity for science.

Throughout the nineteenth century and into the early part of the twentieth century, the American chestnut tree made numerous appearances in leisure literature which frequently appeared in magazines published in New England and the Mid-Atlantic states. The American chestnut tree was a crux in the backbone of children's stories, the subject of poems, the source of home remedies, a symbol of youth and manhood, the subject or moral and religious parables, and a spectacle of wonder. Despite numerous magazines and publications that contained articles praising the American chestnut tree and expressing the place the tree had in northern American culture, few scholars have used these sources as a means of engaging with the cultural significance that the American chestnut bore in northern communities. Such oversight begs for investigation into the symbolism that those living in New England, New York, and Pennsylvania assigned to the tree as well as its influence on American culture, identity, and experience. The use of the American chestnut tree as a literary symbol indicates pride in having such a versatile natural resource in abundance, and the frequent reference to the tree indicates that it played a role in developing communal identity. The numerous uses for the trees as well as accounts of chestnutting gave the tree qualities with which most Americans in the area would be familiar, thus allowing the American chestnut tree to influence the American's experience with the environment. These various magazines that published children's stories, poems, household tips, and general

information on the American chestnut tree will play a vital role in showing that the people living in New England, New York, and Pennsylvania attributed a significant amount of cultural symbolism to the tree.

While scholars have shared their research on the economic implications of the American chestnut tree, much of their research has been confined to the Appalachian region, leaving the New England and Mid-Atlantic states underexplored. Americans in the northern states found ways of developing their own economic relationship with the chestnut tree by advertising its admirable qualities. Numerous newspapers and agricultural publications praised the tree's durability and regenerative properties along with the popularity and profitability of the nuts. The notable shift from revering the tree as a natural wonder to exploiting the tree for its utility was indicative of larger economic trends and environmental degradation in New England and the Mid-Atlantic states. People began investigating ways to gain as much from the tree as they could by devising different uses for the tree's parts and manipulating its reproduction and growth. Additionally, they relied heavily on the tree's ability to reproduce quickly and its natural abundance, encouraging unsustainable agricultural practices. However, despite the growing economic promise of the American chestnut tree in the New England and Mid-Atlantic states, some Americans still fought to preserve the cultural significance of the tree. The voices of preservation and admiration became fewer and fewer as the twentieth century unfolded and were instead replaced with cries for economic profitability.

As the blight ravaged the landscape, the American chestnut tree made many appearances in scientific and informative literature, adding another layer of complexity to the tree's already multi-faceted identity. The number of articles published that relate to the American chestnut tree is a testament to the prominence that it held in American culture as it was shifting more towards

science. Because it was so ubiquitous and a common source of lumber and nuts, many people across a variety of regions were familiar with the native species. Consequently, spreading the news of the blight was crucial because of the radical economic and cultural implications. Articles with information about the blight indicate that the tragedy was newsworthy and that people should be informed of the consequences of the fungus as well as the research being done to prevent it from doing more damage. The tone of the articles conveys concern, urgency, and faith in science to bring a solution. The American chestnut was being reduced to an object of scientific observation and experimentation and human beings frantically fought nature.

The current research that has been done on the American chestnut tree has opened opportunities for more in-depth intellectual exploration that can draw new conclusions and make new connections. Scholars have shown that there was a cultural relationship between the American people—particularly those who lived in the mountains—and the American chestnut tree as well as economic and environmental dependencies. However, there is more to be explored on the role of the American chestnut tree in northern culture and economics as well as the tree's influence on science. In the New England and the Mid-Atlantic states, the American chestnut tree was a cultural symbol that represented the American environmental experience and economic potential, and its demise from the blight highlighted the competition among the tree's cultural, economic, and scientific identities.

CHAPTER 1: CHRISTIAN MORALITY, ENVIRONMENTAL STEWARDSHIP, AND INTERGENERATIONAL RESPONSIBILITY

Numerous authors took advantage of the popularity of the American chestnut tree to teach lessons about Christian morality and environmental stewardship through stories and poems. Many of the Christian themes interwoven in the literature centered around the relationship between God and nature, environmental stewardship, and caring for others. Playing under an American chestnut tree or going chestnutting were common childhood experiences that helped connect people with the environment as well as across generations. Consequently, the tree fostered a sense of gratitude towards the environment as well as a sense of responsibility to protect the environment for those yet to come. The American chestnut tree served as a symbol of spiritual and environmental communion and played a vital role in instructing children on faith, morality, and responsibility towards others.

The American chestnut tree acted as an instrument in instructing children on Christian values and morals while also instilling in children an appreciation for the natural environment. Short stories featuring the tree resembled parables, explaining important spiritual themes in terms that children could understand through relatable experiences. "Sunday in a Chestnut Tree" appeared in an 1863 issue of the *Christian Advocate Journal* and addressed numerous Christian ideas, including the spiritual motivation for encouraging children to develop a relationship with the environment. The story centered around two young siblings, Ben and Maggie, who begged their father for permission to go chestnutting. Maggie expressed her desire to go on a nut-gathering

adventure to her brother, stating, "'I used to think I'd never get tired of seeing the toy-shops,"' and, "'I'd rather see one of the little red ground-squirrels again, running about after the nuts, than all the toys that were ever made!'"[22] The author explained the reasoning behind Maggie's feelings, writing, "These were country children, and no wonder the city could not satisfy them."[23] Maggie's desire to see the squirrels scampering among the nuts and her disregard for the material pleasures of childhood showed that she was drawn to the transcendental aspects of the natural world and longed to experience them. She did not find fulfillment in the city and instead sought the excitement and pleasure of chestnutting, an endeavor that would allow her temporary repose from the manmade environment. The author covertly alluded to the Christian idea of the spiritual emptiness provided by material objects and the fulfillment brought by engaging with God through creation. Maggie formerly sought pleasure in toys, but she found true pleasure and meaning through chestnutting, which connected her with something beyond herself. Additionally, the profoundness of Maggie's attitude was amplified by her youth, showing the interconnectedness of the themes of childlike innocence and spiritual fulfillment. The author of the story not only used Maggie's excitement about chestnutting to foster an affinity for creation, but to also encourage childlike innocence and simplicity, both of which could help Christians connect more deeply with their faith.

While Maggie's preference for the gifts of nature over man-made pleasures aligned with the Christian idea of denouncing material pleasures, it also evoked the Transcendentalist idea of finding spiritual fulfillment through nature. Ralph Waldo Emerson, one of the prominent Transcendentalists during the first half of the nineteenth century, contemplated the inseparability

[22] "Sunday in a Chestnut Tree," *The Youth's Companion*, November 22, 1866, 187.

[23] "Sunday in a Chestnut Tree," 187.

between spirituality and nature. He noted that the two complemented each other instead of competed with one another and that genuine spirituality could be achieved through the simplicity of nature. To Emerson, nature itself was not divine, but instead a medium through which the divine manifested. It transcended the mad-made order of society because, as he believed, "laws, and letters, and creeds, and modes of living seem a travestie [*sic*] to truth."[24] The expansiveness and encompassment of nature was a pathway to fulfillment, a more promising pathway than human-created order. Maggie, in her youth, recognized that she could not find fulfillment in the city "modes of living" that prioritized toys, materiality, and the man-made over experiencing the country. Her attitude was a legacy of Emerson's belief that nature acted as an avenue towards fulfillment. She preferred chestnutting among the squirrels, an activity that directly engaged with nature instead of the human-constructed realm. Although the story bore Christian symbolism, it also drew from Transcendentalist ideologies that promoted the relationship between spirituality and the environment.

Not only did the author use the American chestnut tree to emphasize the appeal of spiritual communion with the environment, but he also used the tree as a means of teaching a lesson about respecting the Sabbath day and keeping personal desires in check. Ben and Maggie's father related a story to them about a chestnutting experience from his youth to remind them that practicing their faith was more important than gathering chestnuts. When he was a boy, he and his brother walked to Uncle Seth's wood lot, which had plenty of American chestnut trees whose nuts were free for the taking. The children's father and brother had a sense that the act they were about to commit was wrong. As he described it, "'We did not feel as bold as lions as the righteous do. We said

[24] Ralph Waldo Emerson, "IV Spiritual Laws," The Completed Works of Ralph Waldo Emerson--RWE.org, December 19, 2004, https://www.rwe.org/iv-spiritual-laws/.

there was no harm in it, and yet we took pains to go out the back way, through the garden, which was out of our way.”’[25] The boys both ignored their consciences and thought that they could decide what was right and what was wrong in light of their personal desires. Although they knew that Sundays were reserved as the day for rest and worship, they assumed that chestnutting would be permissible as long as they did not get caught and returned home before the church services began. The two boys thought they were safely out of sight among the branches, but Uncle Seth and his dog found them. In response to the boys’ crime, the wise man warned, “‘Nutting on Sundays is bad business, little boys.’”[26] The two brothers had succumbed to their temptation and their transgressions were apparent. The story alluded to the Christian myth of the fall of humanity, likening the American chestnut tree to the tree in the Garden of Eden bearing the forbidden fruit and likening the youthfulness of the boys to the innocence of Adam and Eve. The brothers knew that they should not be chestnutting on Sunday but chose to anyway, just as Adam and Eve knew that they were not supposed to eat the forbidden fruit. Similar to Adam and Eve, who failed to hide from God after committing their sin, the boys could not hide from their elder. Ben and Maggie’s father’s story shared multiple parallels with the story of the fall of humanity in the Old Testament. The similarities not only painted the boys’ actions as sinful and wrong, but they also emphasized that they contradicted one of God’s commandments. The story’s reference to a well-known biblical myth emphasized the lesson of adhering to the Sabbath day and regulating personal desires by reincarnating evocative Christian symbolism into the American chestnut tree.

“Sunday in a Chestnut Tree” was part of a larger debate about the meaning of adhering to the Sabbath day in the nineteenth century. The social changes of the nineteenth century challenged

[25] “Sunday in a Chestnut Tree,” 187.

[26] “Sunday in a Chestnut Tree,” 187.

the traditional mandate of rest and religious devotion. Sunday became the meeting day for reformers, and immigrants brought their own traditions that competed with the day of rest. There were divisions within Protestantism, the sect of Christianity that heavily emphasized the doctrine of the Sabbath, and "liberal Protestants argued that opening libraries and museums and allowing some secular pastimes on Sunday could be beneficial for moral development and democracy."[27] They felt that "cultural activities and innocent diversions could direct attention to the community, the family, and nature in a society that was increasingly competitive, disconnected, and industrialized."[28] However, their conservative counterparts "generally wanted to preserve the religious focus of the day and not rely on other non-governmental institutions," particularly because government organizations usually respected the Sabbath day.[29] The tale narrated by Ben and Maggie's father served as propaganda for the importance of strictly honoring the Sabbath day. Taking a conservative stance, the story taught that an activity as simple and seemingly harmless as chestnutting could be a gateway to sin if it conflicted with the day of rest and worship.

Secular newspapers published on Sundays fueled the debate on respecting the Sabbath day.[30] To combat the popularity and supposed heathenism of Sunday newspapers, Sabbath supporters produced their own published materials. They rationalized that families would be permitted to read their publications on Sundays because "Sabbath activities that were religious or at least civilizing could be acceptable in Victorian America."[31] Religious conservatives were

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[27] Jeffrey A. Smith, "Sunday Newspapers and Lived Religion in Late Nineteenth-Century America," *Journal of Church and State* 48, no. 1 (Winter 2006): 127–28.

[28] Smith, "Sunday Newspapers and Lived Religion in Late Nineteenth-Century America," 127–28.

[29] Smith, "Sunday Newspapers and Lived Religion in Late Nineteenth-Century America," 128.

[30] Smith, "Sunday Newspapers and Lived Religion in Late Nineteenth-Century America," 128.

[31] Smith, "Sunday Newspapers and Lived Religion in Late Nineteenth-Century America," 135.

especially appalled when newspapers published content that exposed the faults of the faithful.[32] Jeffrey A. Smith recounts the retaliation that religious zealots waged on newspapers: "Distressed at what they considered satanic influences of popular print culture in general, antebellum religious publishers mounted campaigns to combat reading for mere pleasure by providing inspirational tracts and periodicals."[33] "Sunday in a Chestnut Tree" not only bore religious symbolism, but it also participated in the debate between strict and lax adherence to the day of rest and worship. The American chestnut tree in the story was instrumental in both teaching a moral lesson and commenting on the conflicting interpretations of religious ideas.

In addition to offering a lesson on the importance of honoring the Sabbath day, Ben and Maggie's father taught that selfish actions have negative consequences and that poor decisions lead to punishment, further expanding upon the moral lessons offered in his narration. After Uncle Seth discovered the boys in the tree and imparted his words of wisdom, he returned to his porch. However, his dog remained guarding the tree, making it impossible for the boys to descend. Trapped in their leafy prison out of fear of their canine sentry, the two boys missed their church services. Ben and Maggie's father reflected, "'But how guilty we felt when we contrasted ourselves with the happy children walking along obediently with their parents!'"[34] Being trapped in the tree and seeing other children dutifully attending Sunday services forced the boys to reflect upon their actions. In doing so, they had to engage with their consciences and have the humility to admit that they made a poor decision. The time that the boys spent in the tree forced them to confront their sins and suffer for it in a way that would teach them a lesson. Consequently, their

[32] Smith, "Sunday Newspapers and Lived Religion in Late Nineteenth-Century America," 137.

[33] Smith, "Sunday Newspapers and Lived Religion in Nineteenth-Century America," 137.

[34] "Sunday in a Chestnut Tree," 187.

internment acted as a form of penance. They had paid the price for placing their selfish desires over worshipping God. It was not until the sun began to set that Uncle Seth returned to call off his dog and remind the boys that chestnutting on Sundays was a poor idea.[35] Although the story teaches that poor decisions can lead to suffering, it also shows that suffering as a form of penance is temporary. Upon being freed from their hard time in the hardwood, they "'hurried home and confessed all to [their] mother. She wisely thought we had been sufficiently punished, and said but little.'"[36] Uncle Seth knew that the boys needed time in the tree to contemplate their poor decisions so that they could descend the tree as better and more moral people. Despite breaking the commandment to honor the Sabbath day, the brothers were able to atone for their poor decisions and leave their sins behind by going home. Maggie and Ben's father's story used the American chestnut tree as a symbol to emphasize that wrongful acts came with consequences and that performing a form of penance was both necessary and beneficial.

While Maggie and Ben's father's tale explained the importance of respecting the Sabbath day, keeping personal desires in check, and performing penance for poor choices, it also enforced that God transcended nature. Maggie and Ben's father wanted his experience to be an example to his children that even though the chestnut tree could bring fulfillment and pleasure, there were inappropriate times to act on desires, especially if they interfered with practicing their religion. The juxtaposition of nature as a source of fulfillment and nature as a temptress highlighted the importance of remembering that God, the Creator, was superior to nature and that enjoying creation should not conflict with praising its Maker. The spiritual fulfillment for which Maggie yearned was made possible by God's presence in nature. However, it was God's transcendental

[35] "Sunday in a Chestnut Tree," 187.

[36] "Sunday in a Chestnut Tree," 187.

existence that earned praise, not just His material creation. Although the story primarily focuses on respecting the Sabbath day, it also alluded to the larger lesson of viewing nature as a means of connecting with God instead of viewing nature as a god itself. By spending the day in the chestnut tree and missing Sunday services, Maggie and Ben's father and uncle learned that the physical world could not bring spiritual fulfillment that equaled the spiritual fulfillment brought by directly worshipping God. Ben and Maggie's father recalled that judgment and condemnation of their parents "'was the thought that troubled us the most,'" and they soon "'grew hungry'" while trapped in the branches.[37] The boys dreaded disappointing their parents, and they were left both physically and spiritually hungry. Consequently, the American chestnut tree was a means of spiritual fulfillment instead of the source, a distinction that Maggie and Ben's father wanted to ensure that his children understood. Although nature could offer fulfillment through escaping the manmade world, it alone was not enough to satisfy spiritual needs, emphasizing the need to view the environment as a means of connecting with God instead of being its own end.

Charles G. Ames also saw the American chestnut tree as an instrument in conveying themes about God's transcendence and manifestation in nature. He crafted a poem that captured God's presence in the created world and the way that He used it to intervene in human lives. Similar to "Sunday in a Chestnut Tree", Ames's poem alluded to the American chestnut tree as a mediator linking God to humanity. The language and imagery in Ames's poem, published in 1883 in *The Continent, an Illustrated Magazine,* narrated more than just the story of a young boy and his older sister walking through the woods in search of chestnuts. Ames interwove a number of moral and spiritual lessons into the lines of his short and simple poem, including humility and dependence

[37] "Sunday in a Chestnut Tree," 187.

on God. Ames's words encouraged readers to keep their eyes open and nurture an awareness of God's presence and blessings offered through nature. He wrote:

> Through the autumn woods he strolled,
> Happy Tommy, four years old;
> Heard his guardian sister calling:
> "Do not watch the brown nuts falling;
> Rather look upon the ground,
> Where the fallen ones are found."
> Was she wiser than the boy,
> Who, with eyes ablaze with joy,
> Cried, "O sister! sister! sister! See
> How God shakes the chestnut tree![38]

The dynamic and dialogue between the two siblings were pivotal in evoking Christian symbolism and themes. Tommy's youth signified his innocence and dependence on others for knowledge and understanding of the world around him. His childlike nature personified the Christian idea of reliance on God, the Father who would provide for His people. Ames described Tommy's sister as a guardian, implicitly likening her to a guardian angel tasked with watching over Tommy to direct and protect him. By instructing Tommy to look at the nuts that were already on the ground rather than the ones that were still suspended in the tree, she encouraged Tommy to appreciate what was within his reach instead of desiring more. In doing so, Tommy's sister taught him the lesson of awareness and humility. Her message echoed the Christian teaching of trusting in God to satisfy human needs. Not only was his sister leading Tommy to more chestnuts, but she was also leading him to deepen his relationship with God. Just as the story "Sunday in a Chestnut Tree" paralleled aspects of the story of the fall of humanity, so too did Ames's poem. The chestnuts hanging in the tree were out of reach, just as the forbidden fruit was meant to be metaphorically beyond Adam and Eve's grasp. However, unlike Adam and Eve, Tommy was

[38] Charles G. Ames, "The Chestnut Tree," *The Continent; an Illustrated Weekly Magazine*, September 5, 1883, 314.

satisfied with the nuts around him. He was not reaching for fruit beyond his capacity the way that Adam and Eve symbolically reached for knowledge beyond their understanding. Guided by his sister, Tommy was humble enough to find joy in what God had given him instead of striving for more. Tommy's sister helped the young boy see that God offered blessings through nature, which was indicative of the transference of God's heavenly grace onto earthly existence.

Tommy's chestnutting experience not only taught him to recognize God's presence in his life, but also to see that God used the chestnuts to engage with him personally. Upon turning his eyes to the ground, Tommy noted the abundance of nuts scattered across the grass. With great delight, he attributed the wonder of the bounty to God, as if God directly and intentionally provided the nuts for him, when he exclaimed "See / How God shakes the chestnut tree!"[39] Tommy's example showed that he understood the reality of God's presence and saw the nuts within his reach as a blessing. By shaking countless chestnuts onto the ground, God was not only sharing the nuts with Tommy, but He was inviting Tommy to witness His presence and more deeply engage with Him. In that moment, the way to connect with Tommy was through chestnuts, which showed that God utilized nature as a divine mediator. Ames's depiction of nature as a means of revealing God combined Christian ideologies with Transcendentalist ideas. Regarding nature, Ralph Waldo Emerson wrote, "The whole course of things goes to teach us faith. We need only obey."[40] Although chestnuts naturally fell from the tree, Tommy interpreted it through a lens of faith, showing that nature was instrumental in revealing religious truths. In Tommy's case, God revealed His presence to the young boy through chestnuts, giving Tommy a reason to both praise

[39] Ames, "The Chestnut Tree," 314.

[40] Emerson, "IV Spiritual Laws."

God and trust God to provide for him. The American chestnut tree was an instrument of God's intervention and acted as a physical invitation for Tommy to witness God's presence.

Although the American chestnut tree itself could not bring ultimate spiritual fulfillment as God did, as illustrated in "Sunday in a Chestnut Tree" and reinforced by Ames, it offered a means of having a transcendental experience that brought more meaning to the material world. One woman reflected on the way that the American chestnut tree brought her happiness in a way that material objects could not. After moving to the city, the woman returned to her childhood home for a visit, rekindling many fond memories from her youth. She recalled the relationship that she formerly had with a chestnut tree that she would pass on her walk to school and reminisced over playing in the leaves and passionately gathering the nuts. She reminisced, "'I picked up my hatful of big glossy nuts myself, and managed to rub two holes through the patent leather tips of my second-best shoes.'"[41] Protecting her shoes was not a strong enough deterrent from vigorously chestnutting. The woman further explained, "'But the nuts were worth it. I don't know when I've been so happy.'"[42] As a child, the woman prioritized the experience of chestnutting over preserving her shoes, which were replaceable material objects. Just like Maggie from "Sunday in a Chestnut Tree," the woman had gained an appreciation for the natural environment that superseded her enjoyment of the manmade world. Similar to the way that Maggie did not find as much pleasure in toys as she did in chestnutting, the woman valued the experience more than the materiality of her shoes. In both cases, chestnutting was an invitation to engage with the environment and to surpass the manmade world.

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[41] "The Old Chestnut-Tree," *The Youth's Companion,* April 21, 1904, 199.

[42] "The Old Chestnut-Tree," 199.

Just as Tommy connected with God through the American chestnut tree, the woman had a transcendental sense of calling as she renewed her relationship with the chestnut tree. Seeing the chestnut tree resurfaced many of her fond childhood memories, which motivated the woman to find a way of owning the tree. She deemed her desire as "'a new purpose to live for.'"[43] Because the chestnut tree had brought meaning to her life in her youth and later in her adult life, she felt a responsibility to allow it to bring meaning to the lives of others. She reasoned, "'It won't cost much, for the land there isn't worth anything, and what joy it will be to me in my city days to think that I have saved the old tree so that other boys and girls, so long as it lives, can scuffle through the leaves and pick up the nuts under its branches, and gather dreams and memories also from it as I used to so many years ago.'"[44] The woman felt called to be a steward of creation and guard the source of her youthful enjoyment. By preserving the tree, she was giving the land a reason to have intrinsic value, and she was protecting the opportunity for other children to have the same transcendental experiences with nature as the ones she enjoyed. The American chestnut tree was not only instrumental in allowing the woman to engage with the environment, but it was also crucial in allowing the woman to contribute to the lives of others. Her legacy paired with the legacy of the American chestnut tree preserved the hope in finding fulfillment and joy through the environment. The American chestnut tree inspired an elevation of spirit, an appreciation for experience, and a desire to preserve the delight of nature.

As the woman's story alludes, another common thematic application of the American chestnut tree in literature depicted the tree as a means of emphasizing intergenerational environmental responsibility in addition to environmental communion and appreciation for the

[43] "The Old Chestnut-Tree," 199.

[44] "The Old Chestnut-Tree," 199.

natural world as a gift from God. Sydney Dayre's story "A Plea for the Old Tree" taught that the environment was a gift that must be respected so that future generations could benefit from it, highlighting that the natural world was more than an accumulation of resources to be consumed by human beings. Dayre set his story at the end of the chestnutting season, when the majority of the nut crop has been gathered and the local children were free to collect the remaining nuts. George, the protagonist, warned the children that they should have their fun while they could because the tree would be cut down for timber, making the current season the last one for gathering chestnuts. On the brink of manhood, George had taken over the family farm after his father had died the previous year. 'Squire Wright, "a man greatly beloved and respected through the whole country side for his stalwart good sense, tempered by the gentle kindliness belonging to the true Christian," had been left as George's guardian, and he has some thoughts about George's decision to cut down the tree.[45] 'Squire Wright, seeing the potential impact of George's decision, asked the young man what was compelling him to cut down the tree. George explained, "'Chestnut makes pretty good lumber, and Mr. Vance, down to the factory, has offered me a good price. You know there is a small mortgage on the farm, left by the expenses of father's long illness, and I'm impatient to pay it off. The price of the chestnut will be quite a help towards it."[46] By forcing George to reflect on his motivations for cutting down the beloved tree, 'Squire Wright was acting like a guardian angel trying to point George in the right direction. Similar to the way that Tommy's sister sought to guide Tommy, 'Squire Wright wanted to protect George from making a decision he would regret as well as protect others who would be negatively affected by the choice to fell the tree. The community's enjoyment of the American chestnut tree turned cutting it down into a

[45] Sydney Dayre, "A Plea for the Old Tree," *Christian Observer*, May 6, 1903, 18.

[46] Dayre, "A Plea for the Old Tree," 18.

moral conflict: what could benefit one person would come at the expense of others as well as the environment.

'Squire Wright sought to make sure that George realized that the tree was more than a source of timber and instead a resource for the community and for the environment. However, George declared that the tree had little other value besides its timber and a few nuts. Taken aback by the young man's claim, 'Squire Wright reminded George that he was not the only one affected by the tree being cut down. He insisted, "'I'm not at all sure, George, that you have a right to fell that tree."'[47] The two estimated that the tree must be around 200 years old, and 'Squire Wright noted that for 200 years, God had given the tree the sunshine and water it needed to grow strong, provide food and shelter for woodland creatures, and bring joy to children as well as provides shade for many laborers. The old man was even concerned about the birds: "'I'm thinking of the birds that have nested there for nearly two hundred years. Where will they go now?'"[48] The 200-year impact and legacy of the tree could be ended with a swing of an ax, denying people and wildlife alike of the blessings of its branches. 'Squire Wright profoundly explained, "'The gracious Creator has put it into the world, having fitted it for our use and enjoyment. Pleasant things have come down to us from generation to generation. But we are not to forget those who are to come after us."'[49] By leaving the tree standing, George would help leave the world a better place instead of contributing to its destruction. The young man considered the role he could play in improving the world, and after a conversion of heart, he advocated for the appreciation and

[47] Dayre, "A Plea for the Old Tree," 18.

[48] Dayre, "A Plea for the Old Tree," 18.

[49] Dayre, "A Plea for the Old Tree," 18.

protection of trees in his community while also encouraging people to plant trees in their yards and when a child was born.

Dayre's story showed that the American chestnut tree was a key literary element in conveying the idea of love of neighbor as well as appreciation for the environment, ideas upon which L. Maria Child expanded upon. Child wove several prominent Christian themes into her story "Grandfather's Chestnut-Tree," touching on environmental stewardship, love of neighbor, and wonderment at God's creation. The story, published in 1865 in *Our Young Folks, An Illustrated Magazine for Boys and Girls*, educated children on viewing God as the Creator, sharing natural resources, and fostering a communal relationship with the environment. Child centered her story on Susie Brown and her family's chestnutting trip. She opened her narration with Susie's visit to her grandmother's house to spend the night before embarking on a chestnutting adventure at her great-grandparents' home. Eager to see the glorious chestnut tree, Susie questioned her grandmother, Mrs. Gray, about what the great chestnut tree was like when she was a girl. "'When I was about your age,'" the elder recounted, "'it was a small, slender tree, very pretty to look at, and the birds liked it so well that they built nests in it. But it did not bear any blossoms till I was ten years old.'"[50] Mrs. Gray's reminiscing was a testament to the intergenerational legacy of chestnut trees as well as its role in fostering an appreciation for nature. Because of the chestnut tree's long life, Mrs. Gray was able to share the same tree that brought her pleasure and joy with her granddaughter. When Susie inquired how the flowers transformed into nuts, Mrs. Gray simply answered that "'God made them to grow so.'"[51] She also explained that prickly burs containing

[50] Maria L. Child, "Grandfather's Chestnut-Tree," *Our Young Folks. An Illustrated Magazine for Boys and Girls*, October 1865, 619.

[51] Child, "Grandfather's Chestnut-Tree," 614.

nuts formed from the flowers and then popped open after the autumn frost. Mrs. Gray's description attributed God as the central factor in explaining natural phenomena, emphasizing the relationship between the Creator and the natural world. She expressed a sense of humility by crediting all of nature's intricacies to the creative power of God, instilling a sense of wonder at nature's complexity. The chestnut tree helped Susie connect with her grandmother and acted as an educational tool, teaching Susie about the world around her through the perspective of faith.

Through shared experiences, Mr. and Mrs. Gray were able to bequeath their appreciation for the American chestnut tree to their grandchildren, inspiring them to develop a relationship with the tree. Susie's grandfather's stories about chestnutting and selling chestnuts inspired her and her brother to follow his example, further emphasizing the American chestnut tree's ability to link multiple generations through a common experience. "'I used to have more than I wanted when I was a boy,'" Mr. Gray recalled of his chestnutting adventures. "'We used to send them into the city to sell.'"[52] He further explained, "'We used to get ten cents a quart for them when I was a boy. I bought my first slate and pencil with chestnut-money.'"[53] Mr. Gray portrayed the chestnut tree and its fruit as a profitable resource, acknowledging that the tree could offer monetary benefits if one diligently worked to collect nuts. However, gathering chestnuts was more than an economic endeavor. Mrs. Gray asked Mr. Gray, "'Don't you remember how you and I used to pelt one another with nuts?'"[54] By bringing their grandchildren chestnutting, Mr. and Mrs. Gray preserved the legacy of the chestnut tree and sharing their experiences with another generation. While scavenging the chestnuts, Susie and her brother James planned to gather enough to sell, following

[52] Child, "Grandfather's Chestnut-Tree," 620.

[53] Child, "Grandfather's Chestnut-Tree," 615.

[54] Child, "Grandfather's Chestnut-Tree," 620.

in their grandfather's footsteps. Mr. and Mrs. Gray were passing on their appreciation and uses for the American chestnut tree, whether it was related to selling the nuts or simply having a good time gathering them, highlighting the chestnut tree's ability to bridge the gap across generations through common experiences.

Mr. White, the children's great-grandfather, turned the chestnutting experience into an opportunity to teach the children a lesson about respecting others, presenting a unique and thoughtful way of incorporating the American chestnut tree into moral teaching. Upon embarking on their nut-gathering adventure, the children met an Indigenous girl, Weeta, whom their grandfather had given permission to pick as many nuts as often she pleased. Seeing himself as superior to the Indigenous girl, James purposely spilled her nuts. Appalled by her brother's behavior, Susie befriended Weeta to help her collect her spilled harvest and offered words of comfort, saying, "'I'll help you pick 'em up; and you shall have some of mine.'"[55] Susie's immediate kindness was a testament to the importance of treating others well and assisting others in a moment of need. She took an interest in Weeta's basket, which emphasized that Child used chestnutting to illustrate that experiences with nature could bridge cultural divides. Proud of Susie but displeased with James's actions, Mr. White pushed James to make reparations with Weeta by sharing his nuts and apologizing. "'That's a good gal, Sukey [Susie]!'" he said. "'Always take part with the wronged, Sukey. If James would give Weeta the chestnuts in his hat, and tell her he was sorry, I should think all the better of him.'"[56] James became a victim of his own pride because he saw Weeta as "'nothing but an Indian.'"[57] Disappointed by James's stubbornness, his great-

[55] Child, "Grandfather's Chestnut-Tree," 619.

[56] Child, "Grandfather's Chestnut-Tree," 619.

[57] Child, "Grandfather's Chestnut-Tree," 620.

grandfather reacted harshly, stating "'I am *ashamed* of you, James Brown. You are not a brave boy. The brave never abuse the weak,'" impressing upon James his need to make amends.[58] Despite the culturally insensitive dialogue, the heart of Mr. White's message was to treat others with justice and that acting respectfully was better than asserting dominance over another. Chestnutting provided an occasion for the boy to learn a valuable moral lesson and serve a penance for his actions, highlighting Child's use of the American chestnut tree in instilling Christian values. James felt better once he apologized to Weeta. "'I felt ashamed of *myself,*'" James reflected, "'when she spoke so pleasantly, and said, "Me no care"; for I felt that she was more polite than I was, though she lives in the woods and I am a city boy.'"[59] Later, while telling James that he did the right thing in apologizing to Weeta, Mr. White wisely stated, "'The same God that made *us* made the Indians. We are all his children.'"[60] He wanted James to understand that all people were made by God, meaning that they all had dignity that deserved to be respected and valued. Susie and James's chestnutting adventure taught them to appreciate other cultures as well as respect others, showing that the chestnut tree was instrumental in making the moral lesson tangible.

Child concluded "Grandfather's Chestnut-Tree" by advocating for environmental consideration while promoting each generation's responsibility to the next generation in preserving communal experiences with nature. Reflecting on the events of the day, one of Susie's uncles concluded, "'It's a sad pity they have cut them [American chestnut trees] down so generally. I plant chestnuts every year; and I wish every boy in the land would plant one.'"[61] Susie's uncle

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[58] Child, "Grandfather's Chestnut-Tree," 620.

[59] Child, "Grandfather's Chestnut-Tree," 625.

[60] Child, "Grandfather's Chestnut-Tree," 620.

[61] Child, "Grandfather's Chestnut-Tree," 623.

professed his fear that there might not be any chestnuts trees left if they were being cut down liberally but not replanted. Within a few years, the family experienced a tragedy when their magnificent tree was cut down to build railroads. The news came as an emotional shock to the family because the members had all grown very attached to the tree. In fact, "Grandmother Gray shed tears when she heard of it."[62] The fate of the great chestnut tree was a sign of the changing times and the growing separation between human beings and their environment. The fate of their beloved tree illustrated a larger trend in which people began viewing American chestnut trees strictly as resources instead of as a means of uniting generations and cultures, as Susie and her family did. However, the trees that the Susie and James had planted as children perpetuated the long legacy of the family's dedication and affinity for their old chestnut tree.[63] Child ended the story with a look to the future, aware of the threats to the American chestnut trees but also aware of the few yet impactful people like Susie and James who planted seeds to continue a multi-generational relationship with the natural wonder.

Child wrote with the intention of addressing contemporary social issues as she crafted "Grandfather's Chestnut-Tree." Her use of the American chestnut tree as a pillar for her story allowed her to comment on religious, cultural, and environmental issues. Child was known for her collections of children's stories and poems that she published during her time in New York. In addition to being active in the anti-slavery movement throughout the nineteenth century, she also pursued an interest in Indigenous peoples. She wrote a piece about the Indian Peace Commission, which appeared in the *National Anti-Slavery Standard*. She also had an interest in non-sectarian religion and attended meetings for the Free Religious Association. Child's various writings

[62] Child, "Grandfather's Chestnut-Tree," 628.

[63] Child, Grandfather's Chestnut-Tree," 628.

covered a breadth of topics. As Patricia G. Holland described, Child's "many works fall into several categories: her novels, with their themes of oppression and victimization;, [*sic*] her short fiction; her writings for children; her household advice books; her *Ladies' Family Library*; her antislavery and antiracist writings; her journalism; and her writings on religion."[64] In "Grandfather's Chestnut-Tree," Child alluded to the oppression and victimization of the Indigenous people and the environment as well as religious ideas, integrating several themes and interests into one children's story. Her awareness for and appreciation for Indigenous peoples was personified in "Grandfather's Chestnut-Tree" by the character Weeta. Child illustrated that it was possible for Indigenous people and white people to live in communion with one another and appreciate each other's cultures. By incorporating the American chestnut tree, Child emphasized that both Indigenous people and white people lived in the same environment and shared its resources, creating a transcultural link.

The themes about which Child chose to write reflected her observations of the deficiencies in American culture at the time. Regarding Child's short fiction, Holland claimed that Child "used her fiction to educate in an entertaining way, and the stories sensitively take on the social issues of the time. Child's writing for children has a similar quality."[65] Not only was Child's story relevant at the time of its publication for its commentary on attitudes towards Indigenous peoples, but it was also relevant because of the attitude that it expressed towards the environment. She sought to preserve the legacy of the American chestnut tree, which was being consumed by greed, industrialization, and progress. "Grandfather's Chestnut-Tree" exemplified trends in children's literature at the time because it "transmitted useful information about the world and cultivated

[64] Patricia G. Holland, "Lydia Maria Child (1802-1880)," *Legacy* 5, no. 2 (Fall 1988): 48–49.

[65] Holland, "Lydia Maria Child (1802-1880)," 49.

strong moral values and correct feelings—restraint, self-control, self-denial, filial obligation, and kindness."[66] Not only did Child's story explain how American chestnut trees grew, but it also taught children to respect others, deny pride, love their neighbors, and to respect other cultures. She incorporated her desire for just treatment of all people and for the environment with her generalist religious views, elevating the importance of the role that the American chestnut played in her tale. By framing her story with a chestnutting adventure, Child was able to comment on current social conflicts, such as racism and environmental destruction, as well as teach children about the workings of the world, morals, and religious ideas.

The familiarity that many people had with the American chestnut tree allowed authors use it in their works to instruct children on appreciating God's presence in the environment, recognizing their commitment to future generations, treating others with respect, and following the edicts of their faith. Like in biblical parables, the authors used the simplicity of the American chestnut tree and the common experiences that people had with it to convey complex moral teachings. Through discussing morals, they showed that environmental stewardship was intimately related to caring for one's neighbor. Consequently, the tree assisted in the communication of religious and moral ideas, serving as a means of evangelization and instruction to make the Christian faith more approachable and to increase appreciation for the environment.

[66] Holland, "Lydia Maria Child (1802-1880)," 49.

CHAPTER 2: BOYHOOD, MANHOOD, AND THE AMERICAN CHESTNUT TREE

The American chestnut tree was once an identifying characteristic of the American landscape, but it also had a close association with boyhood, manhood, and qualities of a respectable man. In children's stories and poems, going chestnutting or climbing among the branches of an American chestnut tree was a rite of passage for young boys, and the strength and focus needed to climb the tree were testaments to a man's character. Additionally, admirable men possessed some of the symbolic qualities of the tree, such as wisdom of age and steadfastness. The relationship between males and the American chestnut tree symbolized an exchange of values and qualities, creating a unique relationship between the trees and the journey from boyhood to manhood. The American chestnut tree was a key component of boyhood, and the tree served as a model of character as boys grew into men.

The nineteenth and twentieth centuries had their own perceptions of gender that differ from those of modern times. Although there were subtle shifts in the characterizations of boyhood and an ideal man, there were certain characteristics that remained constant. The era witnessed an increased literary interest in the lives of boys, as seen through the birth of the "Boy Book," which were "narratives about boy-life."[67] Mark Twain's *The Adventures of Tom Sawyer* was a member of the "Boy Book" era because of its emphasis on boyhood adventure, exploration, and curiosity.[68]

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[67] Alan Gribben, "Tom Sawyer, Tom Canty, and Huckleberry Finn: The Boy Book and Mark Twain," *Mark Twain Journal* 51, no. 1/2 (Spring/Fall 2017): 127.

[68] Gribben, "Tom Sawyer, Tom Canty, and Huckleberry Finn," 127.

Thomas Aldrich's *The Story of a Bad Boy* challenged the idealized male characters found in Victorian literature by exposing the more realistic, rough and tough nature of boys.[69] Literary shifts in the characterization of boys and men were indicative of larger social trends at the time. Influential men like Theodore Roosevelt helped engrain the notion that boys had to exhibit masculine qualities and the boys who were not considered manly would stagnate American progress. Concerns about boys growing to be "real boys," or adequately masculine boys, reshaped the way that boys were reared. Julia Grant writes, "In fact, just as the traditional gender roles of adult men and women were being challenged by the politics of feminism and the transformations in work and leisure that accompanied urbanization, little boys became the object of intensified scrutiny by both parents and professionals for signs of gender deviations."[70] The institution of organizations such as the Boy Scouts encouraged the role of "masculine leadership" once boys reached the age ten or twelve.[71] However, ideal boys were still expected to possess "tenderness, refinement, and restraint."[72] There was to be a balance between these seemingly feminine qualities of composure with "'a strong leaven of curiosity, and appreciable love of power, a dash of savagery.'"[73] Although the children's literature that relates boyhood and manhood to the American chestnut tree do not fit neatly into the "Boy Book" category, they were part of a larger awareness of the characteristics of ideal boys and men. Through the instrument of the chestnut

[69] Julia Grant, "A 'Real Boy' and Not a Sissy: Gender, Childhood, and Masculinity, 1890-1940," *Journal of Social History* 37, no. 4 (Summer 2004): 833.

[70] Grant, "A 'Real Boy' and Not a Sissy," 830.

[71] Grant, "A 'Real Boy' and Not a Sissy," 834.

[72] Grant, "A 'Real Boy' and Not a Sissy," 833.

[73] Grant, "A 'Real Boy' and Not a Sissy," 829.

tree, the stories offer commentary on the educational experiences of boyhood adventure, the importance of male role models, and the admirability of courage and bravery.

Annie I. Willis illustrated the connection between boyhood and the American chestnut tree by describing the American chestnut tree as having attributes that made it a boy's companion. In her poem "The Chestnut-Tree," Willis described an ideal day, "A bright, bright day and a wind-swept hill,/ And white clouds floating far and free" as being "the time to run with a will,/ And frolic under the chestnut-tree!"[74] Willis associated playing under a chestnut tree on a beautiful day as the time to freely enjoy the outside world and the way to perfect a pleasant day. She acknowledged that other trees had their attractions, "the graceful birch with its swaying head" and "the brilliant maple with branches red."[75] However, the admirable qualities of other tree species—limberness, elegance, and vibrancy—could not outshine the appeal of the American chestnut tree, especially in the eyes of a young boy. In describing a boy's selectiveness towards trees, Willis explained, "But of all the trees in the wild-wood place,/ there is only one that the schoolboy heeds."[76] She alluded to the common association of the American chestnut tree with boyhood and childhood adventure to show that the American chestnut tree was a complement to youthfulness and vigor. The other trees, with their beauty and grandeur, could not offer everything that the American chestnut tree did. They could not attract young boys to frolic under their branches, nor act as a boy's natural play companion. The oaks, elms, birches, and maples were reserved like pieces of art, trees to be admired, whereas the chestnut tree beckoned children and served as their

[74] Annie I. Willis, "The Chestnut-Tree," *The Youth's Companion*, October 14, 1897, 481.

[75] Willis, "The Chestnut-Tree," 481.

[76] Willis, "The Chestnut-Tree," 481.

playmate. Willis uniquely praised the American chestnut tree for its ability to engage boys and encourage them to explore and enjoy the natural world.

The relationship between boyhood and chestnut trees could also teach boys lessons to help them mature and develop morals. In addition to bearing Christian symbolism, "Sunday in a Chestnut Tree" alluded to the relationship between boys and chestnut trees as well as the link between wise elders and chestnut trees. Ben and Maggie's father and uncle had such a strong desire for chestnuts that they were willing to risk breaking the Sabbath to satisfy their corporal cravings. Their lack of discipline reflected the learning process that accompanied the transition from boyhood to manhood. Uncle Seth served as their model for wisdom and maturity. After catching sight of the boys, Uncle Seth could immediately tell what their intentions were. Ben and Maggie's father recalled the elder's wisdom, "'The old man laughed a little as he watched us, and looked as if this was just what he expected.'"[77] In his old age, Uncle Seth was able to see right through the boys' foolish plot. Not only did he advise the boys that "'Nutting on Sundays is bad business,'" but he also covertly issued a plan to ensure that the boys would learn their lesson.[78] After spending the day in the tree serving their penance, the two boys understood the err in their ways. Ben and Maggie's father and uncle were ashamed of their actions and did not want to be included in the company of the boys who regularly broke the Sabbath day. As they sat trapped in the tree, they "'dreaded lest they [the Sabbath-breaking group of boys] should see us; that would be the greatest disgrace of all! They were shouting and swearing, and had evidently been nutting.'"[79] Ben and Maggie's father and uncle witnessed the type of people who regularly broke

[77] "Sunday in a Chestnut Tree," 187.

[78] "Sunday in a Chestnut Tree," 187.

[79] "Sunday in a Chestnut Tree," 187.

the same commandment that they had broken, and they felt even more guilt for their actions because they did not want to be grouped with such disrespectful and base boys. Once they were liberated from their prison sentence, the boys hurried home. Their mother did not inflict further consequences, deeming Uncle Seth's punishment for them as satisfactory because it forced the boys to reflect on their actions and suffer the consequences. Although the boys tried to be upset with Uncle Seth for trapping them in the tree all day, they realized that the punishment suited their crime and was a way for the boys to understand their mistake. Ben and Maggie's father reflected, "'We had found out that the way of the transgressor is hard, and we learned our lesson well. He was a wise old man, and knew how to preach children's sermons.'"[80] Uncle Seth had helped the two boys reflect on the consequences of succumbing to tempting desires, allowing the boys to grow to be better and more moral individuals. They came to respect Uncle Seth for his ability to make an educational example out of the situation, and Ben and Maggie's father sought to pass the same influence onto his children to inspire them to be better people too.

Not only did the American chestnut tree help Maggie and Ben's father fulfill his duty to teach their children morals and virtues, but it also helped other fathers make the world a better place for their children. Annie Willis McCollough composed a poem in 1920 that expressed a boy's responsibility to set a precedent for future generations. She illustrated a triangular relationship among a father, a chestnut tree, and a boy, showing that the chestnut tree connected the two generations while also teaching the boy to be prudent like his father. McCullough wrote:

> My father planted a chestnut tree when he was a little boy;
> He knew he would be a man before there were any nuts to enjoy,
> But he says that he thought some other lad would be sure to find the prize,
> And he kept on looking and looking round for a chap about my size.
> So here I am! And I do love nuts! And here is my father's tree.

[80] "Sunday in a Chestnut Tree," 187.

Now wasn't he just the knowingest man to plan that gift for me?[81]

Planting the chestnut tree as a boy allowed the father to bridge the gap between his boyhood and showed that he was looking towards the future. Just as he would someday impart the gift of knowledge to his future son, he would also offer the gift of the American chestnut tree, which would not only benefit his son but also many other children. The father's decision to plant the tree expressed environmental forethought as well as an attempt to offer the next generation a fruitful environmental experience. McCullough's words also reinforced the common association of the American chestnut tree with boyhood and manhood. The father had an interest in chestnut trees as a boy, and by planting an American chestnut tree, he also fostered that same interest and enjoyment in his own son. The boy praised his father for his wisdom in deciding to plant the tree, not for himself to enjoy, but for others to appreciate. McCullough conveyed that a good man was marked by his prudence, patience, and selflessness, all of which the father displayed through his choice to plant an American chestnut tree.

Although the father in McCollough's poem seemed to have an intrinsic understanding for the value of the American chestnut tree, other young men needed some guidance in learning to appreciate the great tree for all of its worth. Sydney Dayre drew attention to the type of maturity and awareness that is key in the transition from boyhood to manhood through the story about a young man named George and his conflict over cutting down a chestnut tree. Dayre made a point to describe George as "a bright young fellow, just at the age when young fellows believe themselves entering upon manhood and when their elders begin to realize that in a few years more

[81] Annie Willis McCullough, "My Father Planted a Chestnut Tree," *The Youth's Companion*, March 4, 1920, 133.

the boy will be looking that way."[82] Although the story focused on George's realization that the chestnut tree was a resource to be shared and communally enjoyed, the plot was intimately connected to George learning lessons to aid in his transition into manhood. The root of George's conflict was internal and a consequence of his lack of wisdom and maturity. George needed a positive male influence to guide him on the right path, especially because his father had died. 'Squire Wright "had been left guardian to George, and very deep in his heart lay the earnest desire in all things to be faithful to his trust."[83] Not only was it necessary for George to have a good role model, but it was also vital that 'Squire Wright wanted George to trust him so that he could help George navigate manhood. George was concerned with the fate of the farm and the financial stability of his family, matters that had fallen upon his shoulders since becoming the man of the house.[84] 'Squire Wright's advice to the young man reflected his years of wisdom, evoking the symbolism of the American chestnut tree as a sign of maturity and perspective. The elder's words moved George to make the carefully considered decision to preserve the tree, a choice that would have pleased George's father. By electing to leave the tree standing, George was honoring the memory of his father who, as his mother stated, "'always loved the old chestnut tree.'"[85] Thanks to the guidance of 'Squire Wright, George made a thoughtful choice to preserve the chestnut tree and learned to think about the impact of his actions on the environment and on others, highlighting the importance of having wise male role models during the transition to manhood.

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[82] Sydney Dayre, "A Plea for the Old Tree," *Christian Observer*, May 6, 1903, 18.

[83] Dayre, "A Plea for the Old Tree," 18.

[84] Dayre, "A Plea for the Old Tree," 18.

[85] Dayre, "A Plea for the Old Tree," 18.

Not only did 'Squire Wright encourage George to think carefully about the consequences of his actions and reach a mature decision, but he also inspired George to leave a positive impact on the community and the environment. George sought to spread his newfound appreciation for the American chestnut tree among his companions. Dayre reported that "[m]any talks with his boy friends resulted in making Arbor Day of that good year a day long to be remembered in the neighborhood."[86] Not only was George promoting a spirit of respect for the American chestnut tree as more than a source of timber, but he was also encouraging other young men to do the same. 'Squire Wright had advised George who had, in turn, inspired others to help make the community and the environment a better place. Soon there were trees planted everywhere in the town, and people would plant trees to celebrate new life and memorialize those who died. Consequently, George left a legacy in which people associated life at all stages with the American chestnut tree. Pleased with George's initiatives and acknowledging the lasting impacts they would have, 'Squire Wright proclaimed, "'You've done good work…What you've done today will keep on growing while you are doing other things,'" to which George replied, "'We boys wanted to do something that will make the world a little better for our being in it.'"[87] Not only did George receive 'Squire Wright's approval, but he also showed that he had internalized the lesson and inspired others to perform acts to better both the environment and the community. Dayre used George's change of heart and leadership to inspire other young men to believe that they, too, were capable of doing good for the world.

In many ways, the American chestnut trees encouraged boys to become admirable men and encouraged men to become even more respectable. An author writing under C.S.J offered a unique

[86] Dayre, "A Plea for the Old Tree," 18.

[87] Dayre, "A Plea for the Old Tree," 18.

perspective on the relationship between the American chestnut tree and manhood, professing that men had a natural inclining for the adventure of ambitious chestnutting. C.S.J.'s piece, published in an 1867 edition of *Circular*, reinforced a common approach to contemporary gender roles. The author devised that women should not go chestnutting by themselves because men tended to be better at climbing trees and "dislodging the fruit from inaccessible heights. A properly organized man has just that love of adventure which prompts him to ascend to the topmost bough, and pluck from thence the largest and rarest nuts which the tree has to bestow."[88] C.S.J described a man's natural inclination for adventure and chestnutting as if they were intimately intertwined, making chestnutting an intrinsic and masculine desire. The author also described men as having the unique ability to make accessible the prized nuts hanging from the high branches, as if men were the link between the transcendence of nature and the people below. C.S.J. wrote, "The subtly swaying motion of the branches is delightfully soothing; and you look down with a serene complacency upon your companions who are groveling about under your feet."[89] Climbing the chestnut tree was a privilege that only worthy men could experience. The challenge was invigorating, especially when the first branches were several feet off the ground. Accessing the nuts was a feat that required men to display their strength, endurance, and cunning in reaching the branches. C.S.J. recommended bringing a pole to reach the nuts on the outermost branches. However, the author cautioned that the "operation is not always a safe one; it is often perilous, and requires nerve."[90] But taking the risk was a sign of masculinity, as C.S.J. expressed

[88] C.S.J., "Chestnutting," *Circular*, October 21, 1867, 251.

[89] C.S.J., "Chestnutting," 251.

[90] C.S.J., "Chestnutting," 251.

in questioning, "What manly exercise, indeed, has not its dangers?"[91] The man in the tree enjoyed momentarily feeling like a king as he watched the others scavenging for nuts off the ground, unable to experience the thrill and privilege of sitting on a throne of branches. The prestige of the American chestnut tree offered its temptations: "the earth seems remote, the heavens near; you long to mount higher, and leave forever behind the care and uneasiness of this world."[92] Not only did men have the natural desire to ascend the American chestnut tree, but they also had an intrinsic longing for transcendence, showing that admirable men had an appreciation for matters beyond the material world. According to C.S.J's description of chestnutting, the American chestnut tree acted as a link between heaven and earth, its branches the pathway from worry to natural perfection, which was an experience only men could access through their strength and dexterity.

Just as C.S.J associated bravery and daring with the American chestnut tree, Miss L. O'Connell linked a man's courage to the great tree. In "The Legend of the Chestnut Tree: Cowardice Changed to Heroism by a Night Spent in a Grotto," O'Connell narrated a story meant to explain how chestnut trees got their flowers and nuts to also explain how courage and the American chestnut tree were related. Drawing thematic parallels with Stephen Crane's *The Red Badge of Courage,* O'Connell wrote about Peregrine Copse, a lieutenant who was deeply unsettled after killing a man in battle. Guilt plagued his mind because "[t]here was one less life on earth because of him," and his conscience questioned whether it was possible for war to be just.[93] Although Peregrine attempted to comfort himself by insisting his duty as a soldier was to obey orders, which would inevitable include killing the enemy, his conscience could not rest, and it

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[91] C.S.J., "Chestnutting," 251.

[92] C.S.J., "Chestnutting," 251.

[93] L. O'Connell, "The Legend of the Chestnut Tree: Cowardice Changed to Heroism by a Night Spent in a Grotto," *New York Observer and Chronicle*, August 11, 1910, 175.

mixed with his fear of becoming a victim himself. O'Connell mocked Peregrine's cowardice because the "fighting machine responded to the call of battle; each soldier in line stiffened instinctively; every man but one—and he [Peregrine], an officer!"[94] Peregrine was unable to face the reality of fighting and fled, only to be pursued by the colonel. After being captured and interned, Peregrine questioned of himself, "Why, with his unusually keen sense of honor, had he flung that honor away on a mere chance that he would not return with his comrades, gay and whole as they?"[95] Although Peregrine had previously charged himself as being an honorable individual, war had left him terrorized of being killed or maimed, and his trepidation overpowered his thirst for honor. Upon being caught in his act of desertion, he was stripped of his sword and deemed a coward, a disgrace to his country. Although Peregrine was querying the morality of war and felt guilty about taking another man's life, O'Connell unfavorably portrayed him as a coward who lacked the bravery to seek glory on the battlefield.

Although Peregrine was an inadequate soldier, a chestnut tree offered him assistance in rebuilding his courage so that he could be a better man. After being dismissed from the army, Peregrine wandered through the woods until he came upon a chestnut tree, under which he took a rest. To his surprise, "two large soft arms were thrown round him from behind," and he heard a supernatural and feminine voice declare, "'I may love him, for he is a man, while I am but a chestnut tree!'"[96] Peregrine saw the figure of a woman, who claimed to actually be a tree in the woods in which all the trees could turn into men and women. Peregrine wished that he were a tree instead of a man because he was ashamed of himself, and the chestnut woman replied, "'I know

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[94] O'Connell, "The Legend of the Chestnut Tree," 175.

[95] O'Connell, "The Legend of the Chestnut Tree," 175.

[96] O'Connell, "The Legend of the Chestnut Tree," 175.

your sorrow; you repent cowardice, yet still fear maiming.'"[97] Instead of scorning Peregrine, she was understanding and sought to aid him in regaining his bravery. She insisted that he cut off a piece of her hair, which would protect him from future injury, and Peregrine accepted.[98] Although O'Connell emphasized the disgrace of Peregrine's timidity, she used the chestnut woman to show that Peregrine was not beyond hope. With the help of the chestnut woman's gift, he had the potential to rebuild his character and fulfill his potential as an honorable man. Consequently, O'Connell reinforced the idea that a man had to be brave, courageous, and noble if he was to be respected. By showing that Peregrine had the capacity to act with courage, O'Connell instilled that courage and manliness were inseparable and that the chestnut tree could help him achieve his potential.

The chestnut tree's gift aided Peregrine in re-growing his sense of courage until he was able to internalize the virtue on his own, showing that men intrinsically possessed the ability to be brave. Once Peregrine awoke from his slumber under the tree, he noted that his fear had subsided, and he strut through the forest until he reached a manufacturing town. Instantly, he was hired to work at a machinery factory, and throughout his time working the risky job, no injuries befell him. While working at the factory, Peregrine met Nutta Greenwood, who was "[s]weet faced, dark-eyed and haired," and described as a "'nut-brown maid.'"[99] O'Connell linked Nutta to the chestnut lady by explaining, "Peregrine's night in the chestnut grotto had imbued him with the belief that each mortal is akin to a species of tree. The warm personality of Nutta Greenwood, warmhearted as a June rose, true as an October sky, and dreamy as a December snowstorm, seemed

[97] O'Connell, "The Legend of the Chestnut Tree," 175.

[98] O'Connell, "The Legend of the Chestnut Tree," 175.

[99] O'Connell, "The Legend of the Chestnut Tree," 175.

the complement of that of his lady of the chestnut tree."[100] Peregrine came to love "both tree and woman in Nutta's single person."[101] His encounter with the chestnut tree woman has influenced him in multiple ways. Not only did he remained uninjured while working a dangerous job, but he also saw the beauty of tree in the beauty of a woman. O'Connell showed that the gift of the chestnut woman not only made Peregrine more confident, but it also gave him a greater appreciation for the chestnut tree and natural beauty while encouraging his capacity to love.

As time passed, Peregrine started to display his growing confidence, courage, and nobleness even after the protection of the chestnut tree had worn off. Sadly, Nutta became ill from a plague that had spread throughout the town, so Peregrine used his financial reserves to support the sick and poor girl whom he loved. To his dismay, he found a letter addressed to Nutta from the soldier who had broken Peregrine's sword when he was discharged from the army. Tempted to make Nutta fall in love with him instead of the other soldier, Peregrine decided that he could not be a thief in addition to a coward. As O'Connell described, "Honorable renunciation won. Nor was it by the aid of his chestnut-leaf charm."[102] Even after the chestnut tree's gift had lost its effect, Peregrine was able to make the noble choice. Leaving Nutta in the care of another, Peregrine decided to reenlist, reasoning, "'No suffering can equal that my cowardice has caused me!'"[103] Although his gift of protection from the chestnut woman had long ago worn off, Peregrine was motivated by love to be selfless and courageous, nonetheless. He chose to be noble and brave, fearing the shame of his cowardice more than the danger of war. O'Connell described Peregrine's

[100] O'Connell, "The Legend of the Chestnut Tree," 175.

[101] O'Connell, "The Legend of the Chestnut Tree," 175.

[102] O'Connell, "The Legend of the Chestnut Tree," 175.

[103] O'Connell, "The Legend of the Chestnut Tree," 176.

personal growth to show that he was no longer dependent upon the chestnut woman's protection and had instead internalized the virtue of courage on his own.

Peregrine redeemed himself in his noble last stand, which O'Connell painted as the epitome of bravery and honor. Shortly after Peregrine reenlisted in the army, a war broke out in the region. The troops were fighting for access to a valley whose entryway whose guarded by two chestnut trees. After a gruesome battle, the enemy charged the town. Dazed by his war injuries and surrounded by casualties, Peregrine could see Nutta fleeing the city and coming towards him, and he pulled her onto his horse with him while charging back into battle. Undaunted, Peregrine sword was a deadly force. However, the two were soon surrounded by the enemy and their only escape is over a cliff. Choosing to die of his own accord instead of fall into the hands of the enemy, Peregrine led his horse over the edge. "One triumphant cry from the man who had in the face of the world been branded 'Coward!' and down—down—man, horse and maiden, fell through the sunlight into the soft curling ripples of the mountain stream far below," O'Connell wrote of Peregrine's redemption.[104] After witnessing Peregrine's bravery and sacrifice, the spirit of the nearby chestnut tree mourned the loss of Peregrine. "Between the two trees, now forming, now fading (as on seen through the spray of falling water), songs of sweet, mournful music—her lament for Peregrine—from the spirit of the chestnut, stole upon the silence. As the changing light deepened, her music melted into tears," commented O'Connell. As a way of commemorating Peregrine's bravery, the chestnut tree began bearing flowers which radiated like candles.[105] O'Connell's tragic conclusion to the story showed that there was a mutual relationship between the chestnut tree and Peregrine. Aided by the chestnut tree woman, Peregrine developed his own

[104] O'Connell, "The Legend of the Chestnut Tree," 176.

[105] O'Connell, 176.

sense of bravery and courage, which the spirit of the chestnut tree recognized and memorialized. The chestnut tree helped make Peregrine into a better man, and in turn, Peregrine left his mark on the chestnut tree. O'Connell showed that the chestnut tree served as an inspiration for men to be noble, admirable, and courageous.

The American chestnut tree symbolically assisted boys in becoming men. Whether it was teaching boys to control their desires, to be daring enough to climb the tree's upper branches, or to exhibit bravery, the American chestnut tree played an influential role in instilling admirable qualities of into a young man. Additionally, the process of coming of age was intimately connected to the American chestnut tree because it helped boys and young men realized their mistakes and deficiencies and then work to improve themselves. The American chestnut tree acted as a moral compass for young boys and men: it directed them to be virtuous, strong, courageous, and wise.

CHAPTER 3: THE ECONOMIC PROMISE AND POTENTIAL OF THE AMERICAN CHESTNUT TREE

Throughout the second half of the nineteenth century and into the twentieth century, Americans' perspective of the American chestnut tree shifted as economics and railroads revolutionized the people's relationship with the environment. Prior to the American chestnut tree's rise as a backbone of the timber industry in the eastern half of the United States, people exhibited a sense of reverence towards the tree and were awestruck by its uncommon size. However, the size of the tree began to be a source of competition, inspiring people to derive personal greatness from the natural wonderment of the tree. The transition from admiration for the tree's awe-inspiring size to pride in the tree's literal greatness coincided with the changing perspective of the American chestnut tree as a natural marvel and cultural icon to an economic and exploitable resource. Over time, people came to unsustainably take advantage of the value of the American chestnut tree's lumber and began finding a myriad of new uses for the various parts of the tree. The size and ubiquity of the American chestnut tree fed the American mindset that the environment provided an endless bounty of resources that were freely available for human consumption. However, while the cultural appreciation for the tree was overshadowed by economic interests, some tried to preserve the cultural symbolism while insisting that the American soil was indeed bountiful but inevitably limited. As the American chestnut tree came to dominate the timber industry, Americans' relationship with the tree altered, focusing primarily on utility and maximization instead of environmental consciousness and communion.

The American chestnut tree aroused a sense of astonishment and reverence for nature because of the tree's greatness, made physically apparent through its wide diameter and broad canopy. The scale of the American chestnut tree was not only a source of amazement but also a feat many people found newsworthy. An article in *The New-London Gazette, and General Advertiser* from 1832 reported on the exceptional diameter of an American chestnut tree in Pennsylvania as a way of expressing reverence for the tree's embodiment of the fruitfulness of the American soil. "There is a Chestnut Tree in Darby township, Penn. on the plantation of Jonathan Owen, which measures in circumference three feet from the ground, 32 feet 7 inches," the article related.[106] Although Jonathan Owen owned the property on which the behemoth stood, the real achievement belonged to the tree. The simple article, the entirety of which was contained in one sentence, captured the wonderment of having a tree reach such a considerable width. The presence of the giant tree instilled a sense of humility, reminding people that they were part of a larger existence. However, the sentiment was regional, not just local. The article about the Pennsylvanian American chestnut tree was published in a Connecticut newspaper, which showed that there was a sense of environmental appreciation and bewilderment that pervaded in New England and the Mid-Atlantic states, uniting people through a common sense of amazement. The simple report on the size of the American chestnut tree indicated that the people were moved by the size of the tree, awestruck by its great sturdiness and breadth.

While the American chestnut tree gave people a reason to admire both the tree and the environment's potential, it also gave people a reason to have pride in the American soil, motivating them to vicariously take credit for the remarkable magnitude of the American chestnut tree.

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[106] "Chestnut Tree; Darby; Penn; Jonathan Owen," *The New-London Gazette, And General Advertiser*, December 12, 1832, sec. News/Opinion, 2.

Because the size of the American chestnut tree alone could gather plenty of wonderment and attention, people started competing locally and regionally over the size of trees, foreshadowing the American chestnut tree's emergence as an instrument of competition and profitability. Marshal S. Rice wrote about what he deemed to be the largest chestnut tree in New England in *Zion's Herald and Wesleyan Journal.* Rice addressed Reverend R. O. Haven, challenging his claim about Den. Henry Taylor of Derry, New Hampshire, who supposedly had the largest chestnut tree in New England. Regarding Taylor's tree with a circumference of twenty-four feet, Rice conceded, "That is indeed a large tree, but I believe I have one larger in Newton Center, and shall so consider it until the deacon gives us the height and spread of the limbs, in connection with the circumference of the trunk."[107] To make the size of his tree more of a challenge to beat, Rice documented its dimensions: "height, seventy-six and a half feet; circumference of trunk, twenty-four and three-tenths feet; and spread of limbs, ninety-three feet in diameter."[108] Not only did Taylor's tree have to top the circumference of the Newton chestnut tree, but it also had to exceed Rice's tree's height and canopy spread. By providing more data on the measurable aspects of the tree, Rice fueled the spirit of competition. "I hope we shall hear more of the great chestnut tree of Derry; but until then, Newton leads New England," Rice gloated.[109] His words indicated that the American chestnut tree was indeed still a natural marvel, but men were attempting to take credit and vicariously derive glory from having the largest tree. The article made the size of the American chestnut tree, something over which people had little control, into a contest and promoted the idea that the largest, tallest, and broadest tree was the best. Instead of general respect and admiration for the

[107] Marshal S. Rice, "The Largest Chestnut Tree," *Zion's Herald and Wesleyan Journal,* December 30, 1857, 207.

[108] Rice, "The Largest Chestnut Tree," 207.

[109] Rice, "The Largest Chestnut Tree," 207.

great height and breadth of the American chestnut tree, Rice and his competitor distinguished specific trees as being more deserving of laudation, acknowledgement, and glory because they possessed extremes of the tree's favorable qualities. The competition for the largest tree in the region prefigured Americans' increasing interest in exploiting the tree's unique qualities, such as remarkable size, for their personal benefit.

Competitions over the magnitude of the American chestnut tree foretold the spread of economic applications for the tree in New England and the Mid-Atlantic states. As Freinkel states, "The chestnut was in many ways the quintessential American tree: adaptable, resilient, and fiercely competitive. Given the right conditions, no other hardwood could beat out the American chestnut in the race to the forest canopy."[110] Such qualities also applied to American economics, which were considerably influenced by the American chestnut tree during the second half of the nineteenth century and early part of the twentieth century. Just as the American chestnut tree could "beat out" other forest trees in the competition for resources, it also triumphed over other trees in the man-induced competition to serve as a pivotal resource in American expansion and transportation.

Because of the larger population of American chestnut trees in the Appalachian Mountains, states such as Virginia and West Virginia saw dramatic changes to their landscapes as the American chestnut tree took over the timber industry. However, the New England and Mid-Atlantic states had a hand in making the American chestnut tree an economically profitable resource. As transportation innovations such as steamboats and railroads began to carve their way through the mountains, they "gradually reached the isolated mountain communities, connecting

[110] Freinkel, "Where There Are Chestnuts," 5–16.

them not only with the towns in their vicinity but with the national economy as well."[111] The untapped abundance of lumber in Appalachia thrilled the lumber tycoons who had exhausted much of the pine and hardwood resources of the East and upper Midwest. The Danville and Western Line provided a way for southern farmers to transport their tobacco crops and incentivized the Appalachian farmers to commercialize their chestnut trees.[112] The real economic profit came from the timber and bark of the American chestnut tree. Industrial loggers made their way to the Appalachian region to reap the bounty of the untapped forests. The "utilitarian versatility" of the American chestnut made it very appealing, and soon its wood was being used to construct telegraph and telephone poles, railroads, supports for mine shafts, house frames, furniture, and coffins.[113] The American chestnut timber boom in the Appalachian Mountains inspired economic consideration in the New England and Mid-Atlantic regions, which not only radically changed economics, but also drastically changed the landscape.

Just as the American chestnut tree spanned multiple states, so did its economic capabilities. Between 1907 and 1910, the American chestnut wood added ten million dollars a year to the Appalachia economy. However, as Freinkel writes, "the timber boom brought mill jobs to the region, but most of the profits flowed out of Appalachia to investors in the North and overseas."[114] Although states like Virginia and West Virginia were crucial to the economic boom of American chestnut timber, economic interests in the American chestnut tree were not confined to the Appalachian region. Instead, farmers and businessmen in New England and the Mid-

[111] Freinkel, "Where There Are Chestnuts," 20.

[112] Freinkel, "Where There Are Chestnuts," 20–21.

[113] Freinkel, "Where There Are Chestnuts," 24–25.

[114] Freinkel, "Where There Are Chestnuts," 26.

Atlantic states had their own opinions about imposing their economic ideals onto the American chestnut tree, which transformed their regionalized relationship with the tree. The exploitation had roots in contests for the largest tree and evolved into interests in commercially producing nuts and timber. The people in New England and the Mid-Atlantic states were interested in domesticating the American chestnut tree just as much as they were interested in profiting off the natural forests.

Prior to the American chestnut timber boom in the Appalachian Mountains, people in New England and the Mid-Atlantic states smelled the potential of the tree, so they wanted to learn more about it and how best to utilize it. Various periodicals, such as the *New England Farmer and Horticultural Register* allowed readers to inquire about the productiveness of the tree and have their questions answered by trusted editors. An anonymous reader sent a question to the periodical in 1845 questioning why the chestnut tree was not more frequently cultivated on farms because of its appealing timber and nuts. "I should suppose that a farmer within a moderate distance of Boston, or who could easily send to that market by railroad, would find a lot of chestnut trees a source of considerable profit to him, from the sale of nuts alone," the reader speculated.[115] Although the tree had casually been used for timber, few people had taken advantage of the opportunity to commercially produce the nuts. Unable to understand why the American chestnut tree had not become a cash crop, the reader inquired, "What obstacles are there to the more general cultivation of the tree? and would it not be well for our agricultural societies to encourage its growth by [...]?"[116] The inquirer had taken notice of the potential economic benefits of the

[115] "Cultivation of the Chestnut Tree," *The New England Farmer, and Horticultural Register*, January 15, 1845, 230.

[116] "Cultivation of the Chestnut Tree," 230.

American chestnut tree coupled with the increasing market opportunities offered by the railroad system, alluding to the symbiotic relationship between the expansion of the railroad system and the increasing economic markets for the American chestnut tree. Pairing the novel opportunities offered by railroads with the popularity and bounty of the American chestnut tree, the inquirer sought to use the American chestnut tree in an economically innovative way. The question reflected that the American chestnut tree was creeping into American economic imagination, alluding to the increasingly blurred border between respect and exploitation of the resource.

The common appreciation and enjoyment of the American chestnuts posed a challenge in transitioning the nut from a communal resource to a source of economic profit. The editor replied to the inquirer by explaining that cultivating chestnut trees would not yield as much of a profit as the reader anticipated because it would be difficult to keep "pilferers," such as animals or children, away. He commented on the liberties that boys took when it came to the nuts, stating, "We give them [chestnuts] up for plunder to the boys and other trespassers, who consider chestnuts and all wild fruits a lawful prize, wherever they may find them, and who think they are privileged with the right of tumbling down the farmer's wall, or of forcing their passage through the grass or grain, to [...] their object."[117] The editor believed that people, especially boys, were too accustomed to having chestnuts be a shared product of the earth, making commercializing chestnuts too difficult. Unlike the fruit of other trees, chestnuts had established themselves as a public pleasure, preserving a sense of community and maintaining a relationship with the environment. "Sunday in a Chestnut Tree" and "My Father Planted a Chestnut Tree" served as prime examples for the conflicts that the editor anticipated. Both the story and the poem indicated that chestnuts were freely available. Uncle Seth from "Sunday in a Chestnut Tree" permitted boys to gather nuts from the trees on his

[117] "Cultivation of the Chestnut Tree," 230.

property. Consequently, in the mind of young boys, chestnuts were the exception to private property. Turning chestnuts into a commercial product would require breaking the communal mentality established in "My Father Planted a Chestnut Tree." Describing the speaker's father's motivation for planting an American chestnut tree, McCollough wrote, "But he says that he thought some other lad would be sure to find the prize."[118] The poem showed that American chestnut trees were planted so that their nuts could be shared, which would starkly contrast and hinder the attempt to grow chestnuts for profit. The American chestnut tree evoked a sense of openness and availability, allowing anyone to enjoy its plentifulness, which would challenge efforts to make a substantial profit off the nuts.

Although chestnuts did not offer much economic profitability, the timber of the American chestnut tree was a much more promising resource. Regarding the appeal of profitable timber, the editor thought that many other trees should also be cultivated for their timber in addition to their fruit: "Not only chestnut, but other forest trees should receive more attention from our countrymen in their preservation and cultivation than is generally the case. It is to be wished that the value of all trees suitable for timber should be better understood than it appears to be."[119] He was disappointed to see so many tree-covered areas become pastures. "We have been often pained to see the indiscriminate destruction of forests, which would have been much more profitable to grow up to woods again, than to be converted into a poor pasture or broken tillage land," the editor defended, his concern more economic than environmental.[120] The American chestnut tree's ability to regenerate quickly not only protected the landscape from becoming barren, but it also offered a

[118] McCullough, "My Father Planted a Chestnut Tree," 133.

[119] "Cultivation of the Chestnut Tree," 230.

[120] "Cultivation of the Chestnut Tree," 230.

greater timber yield from one crop. He then provided some advice on how to start a chestnut grove, noting that the seeds could either be planted directly in the ground or planted in a nursery and transplanted, as a way of encouraging the inquirer to help chestnut groves gain popularity.[121] The editor's view expressed that the American chestnut had a considerable amount of potential as an economic resource because of its timber, which was yet to be commercially produced.

As economic ideas mixed with existing attitudes towards the American chestnut trees, tension between cultural appreciation and economic potentialities emerged. Cultural associations and environmental appreciation were distorted as the promise of making a profit from the American chestnut tree came to the forefront. An article published in 1847 in *Dwights American Magazine, and Family Newspaper, for the Diffusion of Useful Knowledge and Moral and Religious Principles* examined the multi-faceted role of the American chestnut tree in American life and imagination. Highlighting the place that the American chestnut tree held in American life, the author wrote, "To many of the natives of this country the Chestnut tree must be associated with some of the pleasing recollections of childhood, as well as with impressions of beauty and utility, as it is one of the most common products of nature in many parts of our country, and one of the finest and most useful of the trees in our forests."[122] Because the tree was "one of the most common products of nature," it allowed many Americans to share common experiences, weaving the American chestnut tree into regional cultural identity. Part of the appeal of the American chestnut tree was due to its appearance. The tree was symmetrically shaped, had leaves of a deep

[121] "Cultivation of the Chestnut Tree," 230.

[122] "The Chestnut Tree," *Dwights American Magazine, and Family Newspaper, for the Diffusion of Useful Knowledge and Moral and Religious Principles*, August 6, 1847, 1.

green hue, offers a breadth of shade, and regenerated quickly, qualities that made it aesthetically and practically appealing.[123] In considering the main role that the American chestnut tree played in American lives, the author wrote, "Its [the American chestnut tree's] principal use with us is for making posts and rails for common country fences; and the extent to which it is employed for that purpose is so great, that it would be difficult to estimate its value."[124] The wood of the American chestnut tree was appealing because it was "so light, so easily split, so durable and so abundant."[125] The author's description of the most frequent uses of the American chestnut tree indicated that economic motivations gradually surpassed cultural and environmental considerations. Although it had a notable cultural presence, the tree was increasingly consumed instead of appreciated in its natural state.

The author expanded upon his analysis of the economic and practical uses of the American chestnut tree, indicating his interest in exploring all possible ways of obtaining resources from the tree. In addition to producing nuts the American chestnut tree could also be a source of sugar. As the author explained, "All readers are not acquainted with the fact, that not the hard or rock maple alone, but the chestnut and the butternut, as well as the soft maple, have a considerable quantity of sugar in their sap, which may be boiled down so as to afford it."[126] The author covertly attempted to emphasize that every aspect of the tree was useful. From offering shade to being a source of food to producing desirable timber, the American chestnut tree was capable of meeting an incredible number of human needs. However, appreciation for the natural wonderment and

[123] "The Chestnut Tree," 1–2.

[124] "The Chestnut Tree," 2.

[125] "The Chestnut Tree," 2.

[126] "The Chestnut Tree," 2.

resourcefulness of the tree was overshadowed by economic interests. Obtaining sugar from the American chestnut tree was too expensive for it to become a widespread practice.[127] Even when considering the various resources provided by the American chestnut tree, the author attempted to rank them by most economically beneficial, indicating that the American chestnut tree was being diminished to an economic resource.

In addition to potentially being tapped for sugar, the American chestnut tree could also be used for medicinal purposes, highlighting the conflict between appreciation for the tree and the need to extract as many resources from the tree as possible. Although discovering medicinal applications of the American chestnut tree leaves aligned with the attitude of finding a way to benefit from every part of the tree, it encouraged a domestic relationship between Americans and the tree. In 1881, Abram Livezey, M.D. published an article in *Peterson's Magazine* that discussed some of the medicinal treatments derived from the American chestnut tree. Livezey claimed that medicinal treatments concocted from the leaves were "entirely harmless, mothers can administer it with freedom, to any similar cases coming within their domestic circles, simple, or uncomplicated asthma, has been promptly cured or relieved by an infusion of chestnut-tree leaves, taken freely."[128] The chestnut tree had also been used to cure what Livezey refers to as "kidney disease," and he instructed that the leaves were most useful for medicinal purposes when they were "gathered in midsummer, and dried in the usual manner."[129] Not only could the American chestnut tree provide food, wood, and income, but it could also be used to help maintain human health. Livezey's commentary supported the idea that the American chestnut tree had a myriad of uses

[127] "The Chestnut Tree," 2.

[128] Abram Livezey M.D., "Mothers' Department.: [Medical Botany--of the Garden, Field and Forest.] No.IX.--Chestnut Tree--Couch-Grass--Colt's Foot," *Peterson's Magazine*, September 1881, 238.

[129] Livezey, "Mother's Department," 238.

that influenced all spheres of American life, but it also challenged the idea that every use for the American chestnut tree had to turn a profit. By promoting natural treatments sourced from American chestnut leaves, Livezey encouraged dependency on the environment and resourcefulness, two qualities that informed Americans' attitude towards the nature. Although Livezey supported finding innovative ways of utilizing the American chestnut tree, he did so in a way that intended to preserve a healthy respect for the tree and would allow the people to benefit from the tree without getting caught up in economics.

As people began exploring more uses for the American chestnut tree, they felt a greater need to understand cultivation methods, highlighting a notable transition in which people began dominating the American chestnut tree. Although there was a degree of curiosity, people sought advice on how to make American chestnut trees into an agricultural product, showing a shift from using the tree on an as-needed basis to commercially harvesting its timber. An article in *The New England Farmer; a Monthly Journal,* featured a question from N.J. Thomas about keeping chestnut seeds through the winter and whether it would be prudent to plant the seeds in the winter if the ground was not yet frozen or whether it would be wiser to wait until the spring to plant. The response to the question opened, "The chestnut, both on account of its timber and the fruit it produces, deserves more attention than it receives."[130] Implicitly, the editor responding to the question deemed the query worthy because he believed that the American chestnut tree was an underappreciated resource. Yielding both timber and nuts, the tree's efficiency was praiseworthy. The editor provided an explanation on planting chestnut seeds: "They should be kept slightly moist through the winter and planted in the spring. Nature plants them in the autumn and covers them with a thick coat of leaves; but it is probable that large numbers of those spared by the boys and

[130] N.J. Thomas, "The Chestnut Tree," *The New England Farmer; a Monthly Journal*, February 1853, 86.

squirrels never germinate, for want of being placed under favorable circumstances of light and warmth."[131] Once spring arrived, the trees should be carefully transplanted. The editor's words indicated that producing a successful crop of chestnuts and timber required a considerable amount of human intervention. Growing American chestnut trees had been reduced to a science instead of being solely a natural process. By manipulating the planting process to ensure that the seeds were growing "under favorable circumstances," growers were attempting to further perfect the way of nature. People asserted their control over the tree by expressing a form of God-like dominance, as if the American chestnut tree could only grow by the aid of a human hand. The editor alluded to the idea that the American chestnut tree required more attention, indicating that it needed human intervention for it to reach its full potential. As the economic profits of the American chestnut tree grew more popular, people sought ways of controlling the production of the tree, reducing its status to merely a crop to be cultivated to the point of exploitation.

Americans began advertising the American chestnut tree's admirable qualities to promote its promise as a resource as its various uses gained popularity. An article from an 1877 edition of *The Independent…Devoted to the Consideration of Politics, Social and Economic Tendencies, History, Literature, and the Arts* discussed the characteristics that made the American chestnut tree lucrative. Some reports as far back as 1846 claimed that there "were trees standing in Massachusetts of sizes varying from fifteen to twenty-two feet in circumference."[132] Not only was the tree's trunk broad but so was its natural range. "'The chestnut is a tree found scattered over a wide territory, making its northern limits 43° and extending south of Florida, with its weater

[131] Thomas, "The Chestnut Tree," 86.

[132] "American Chestnuts," *The Independent...Devoted to the Consideration of Politics, Social and Economic Tendencies, History, Literature, and the Arts*, March 8, 1877, 34.

[western] limits undefined.'"[133] The American chestnut tree was a widely available and ubiquitous resource. However, there was more to the appeal of the American chestnut tree than its accessibility. W. Bacon wrote, "'As a timber tree it possesses a value for many purposes superior to most other trees.'"[134] Because the tree could grow to be fifty to sixty feet tall with few branches along the trunk, it was ideal for building frames, fence-rails, and posts. Bacon explained, "'I can point to fence-rails made from it more than half a century ago, still sound and serviceable, and have known fence-posts set in the ground for a for a quarter of a century to remain firm and durable.'"[135] By being useful for a number of practical purposes, the American chestnut tree had established itself as useful and preferable compared to other trees' timber, and its long-lasting products advertised its versatility and durability. Additionally, innovation found new uses for chestnut timber, especially as the railroad system was expanding. Because of the timber's rot-resistant property, the American chestnut tree helped engrain the railroad tracks into the American landscape. The desirable qualities of the American chestnut tree helped people contain the landscape by building fences and railroads, showing that the tree had become an accomplice in Americans' task of controlling nature.

One of the American chestnut tree's most desirable qualities, its ability to regenerate quickly, made the tree even more exploitable. After the tree has been cut down, new sprouts emerge from the remaining roots. However, "'probably from exhaustion of the parent roots, on which the live shoots are mainly dependent, every generation of trees grows more feeble, until at

[133] "American Chestnuts," 34.

[134] "American Chestnuts," 34.

[135] "American Chestnuts," 34.

last they grow to be mere poles.'"[136] Consequently, replanting seeds was a necessary step to keep the forests full. To preserve the growth of trees with desirable qualities, Bacon recommended grafting trees with the best characteristics to produce even more praiseworthy trees. "'The chestnut comes early into bearing and its fruit is materially improved by cultivation,'" he wrote. "'By grafting from trees bearing the best specimens, a still further improvement would not doubt result. It is a tree worthy of a place in all collections and every farmer should have it under culture.'"[137] According to Bacon, the tree was only as praiseworthy as its timber, and he described the tree as being worthy of occupying a farmer's land, as if cultivation were something to be aspired. Bacon explained ways in which to get the most out of a single tree while portraying the stumps' inability to produce more than a few generations' worth of trees as a weakness, even though it is a unique and remarkable feat not replicated by many other species of trees. The lifecycle and development of the trees had been reduced to a means of production, one that encouraged human intervention to manipulate genetics.

As the American chestnut tree dominated economics, it gave Americans a reason to take pride in for reasons besides its size, projecting aspects of American identity onto the qualities of the tree. Bacon offered reasons for Americans to view the American chestnut tree as comparatively better than its European and Asian counterparts. In his description of the American chestnut tree's relationship to other species, Bacon inadvertently provided a summary of Americans' attitude towards the country's relationship with other nations and powers. He wrote, "'Botanists record the American chestnut tree to be of the same species as the sweet or Spanish chestnut, which was originally introduced into the south of Europe from Asia, by the Greeks and Romans, many

[136] "American Chestnuts," 34.

[137] "American Chestnuts," 34.

centuries ago. The flavor of our American chestnut is said to be much superior to its trans-Atlantic namesake.'"[138] His description of the American chestnut tree embodied the American mindset: rooted in the classical world and superior to its European counterparts. Instead of focusing on specific qualities of the tree, Bacon cast American attitudes onto it as a way of bolstering American pride. Consequently, Bacon had discovered a new way of taking advantage of the American chestnut tree, one that fed the American ego.

The tradeoff between utilizing a valuable resource and witnessing negative environmental consequences became more apparent as the American chestnut tree became more famed for its valuable timber. An article that appeared in an 1883 publication of the *Massachusetts Ploughman and New England Journal of Agriculture* explained the role that the American chestnut trees had played in expanding the railroad system while also mentioning the impact that all of the timber harvesting had had on the forests. Regarding crafting railroad ties, "[t]here are many kinds of wood used for this purpose, varying according to locality. In Massachusetts, the chestnut is very largely used, first, because it is found very abundant in many parts of the State, and second, because the wood is hard and holds firmly the spikes that fasten the rails to them, and third, because it decays less rapidly than many kinds of wood."[139] Additionally, raising chestnut trees was relatively inexpensive, especially because the trees could regenerate quickly from the stumps. Farmers in the hill towns could economically benefit from the tree even more because the tree's wood could be used for "finishing houses, vessels and railway cars; for these purposes it is in continued demand and brings a high price."[140] No longer was there any mention of the American

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[138] "American Chestnuts," 34.

[139] "Editorial.: The Chestnut Tree. Its Value for Timber," *Massachusetts Ploughman and New England Journal of Agriculture*, April 7, 1883, 1.

[140] "Editorial.: The Chestnut Tree. Its Value for Timber," 1.

chestnut tree beautifying the land because any aesthetic appreciation for the tree had been converted to economic interests. Using the chestnut trees to construct the railroad system was changing the landscape in more than one way. Forests paid a price as people took advantage of the American chestnut tree's profitable qualities. According to the author, "Thus far no particular efforts have been made to encourage the growth of the chestnut, so the supply has been drawn from the natural production of the forest."[141] Blinded by the illusion of an endless supply of trees that could regenerate quickly, people in the timber industry failed to see the forest as a finite resource. Unfortunately, the tree's efficiency worked against itself; replenishing the forest was not as pressing of a concern compared to making an economic profit and expanding the railroad system.

Disregard for environmental consequences was not confined to the New England and the Mid-Atlantic states. The Appalachian landscape as well as the mountain people inhabiting the region suffered from the expansion of the railroads as well as the robustness of the timber industry. Located within the heart of the American chestnut timber territory, the Appalachian communities suffered as their prized resource began to vanish before their eyes. Unlike Americans in the northern states, the inhabitants of the Appalachian Mountains relied heavily on subsistence farming, and the nineteenth century saw incredible and dramatic changes to the land on which they survived. Railroad travel created economic shifts in the Blue Ridge mountain region, opening access to other areas and reducing the trade within the mountain region.[142] Regarding the expansion of the Norfolk and Western Railroad, Wilhelm notes, "The building of the railroad entailed the use of thousands of chestnut ties that once again focused attention on the forest

[141] "Editorial.: The Chestnut Tree. Its Value for Timber," 1.

[142] Gene J. Wilhelm, "Shenandoah Resettlements," 18.

resources of the Blue Ridge."[143] The mountain folk were frequently commissioned to provide lumber from their land to support the railroad, which helped expand the lumber business. However, despite the expanding economy, the people in the Blue Ridge Mountains actually benefited very little from the American chestnut timber industry.[144] Industrialization competed with their subsistence way of life and ripped them from their mountain culture. The railroad not only revolutionized transportation and industry, but it also altered the landscape and threatened Appalachian mountain culture by converting the American chestnut tree from a means of subsistence to an exploitable resource.

The development of the railroad system not only reinforced the American chestnut tree's durability and appeal, but it also further separated people from the environment, aggravating the self-perpetuating cycle of environmental exploitation and human superiority. The railroad had a paradoxical relationship with nature: it connected people to the landscape while also tearing it away from them. Wolfgang Schivelbusch commented that "on one hand, the railroad opened up new space that were not as easily accessible before; on the other, it did so by destroying space, namely the space between points."[145] Not only was the landscape more connected, but it was also more exposed, ready to be mined for resources and made into trade routes. Some early speculators thought that "the mechanization of travel represented a fundamental break from the constraints of the natural world."[146] Travel no longer depended on animals and environmental

[143] Wilhelm, "Shenandoah Resettlements," 20.

[144] Wilhelm, "Shenandoah Resettlements," 21.

[145] Wolfgang Schivelbusch, *The Railway Journey: The Industrialization of Time and Space in the Nineteenth Century* (Oakland, California: University of California Press, 2014), 37.

[146] Schley, "A Natural History of the Early American Railroad," *Early American Studies* 13 no. 2 (Spring 2015): 444.

conditions. Nature complemented the journey instead of dictating it. However, the railroads did not merely conquer nature. Open access to trade routes and resources convinced some people that railroads helped the environment reach its full potential. Considering the relationship between industrialization and the environment, Schivelbusch proposed the idea of "machinery and industry as forces that do not destroy nature but actually realize its potential by cultivating it."[147] Mechanization revolutionized work, manufacturing, and travel, allowing Americans to innovatively use natural resources, expand trade, and assert their dominance over the environment.

Although there was little to no attempt made to replenish the forests, there was a growing interest in understanding the American chestnut tree better for the sake of cultivation. As an article from the *Friends' Intelligencer* reported in 1889, there was not a consensus on how many species of chestnut trees there were, but scientists widely agreed that there were at least two species in North American: the American chestnut tree and the Chinquapin, or dwarf, chestnut tree. Chestnut trees could have different appearances, which was likely due to environmental adaptations to survive in different climates and soil qualities. As the author wrote, "Thus it flourishes on our flat, alluvial lands, but is also found as a native high up among our mountains, where, with the rock oak, it makes up the bulk of the forest."[148] As more people were taking advantage of the American chestnut tree as a resource, it was important to be able to distinguish its characteristics from other species of chestnut trees as well as know the types of conditions under which it thrived. For example, many of the large American chestnut trees seem to reside in Pennsylvania, particularly in Chester county. One tree on the property of Mr. Abraham Marshall

[147] Schivelbusch, *The Railway Journey*, 92.

[148] "The Chestnut Tree," *Friends' Intelligencer*, April 13, 1889, 238.

was “25 feet and 2 inches in girth when measured on Jan. 1st, 1889.”[149] However, “[w]ith all the range over which the chestnut tree spreads in Pennsylvania, from lowland to highland, it is singular how seldom it grows to a large size on limestone soil.”[150] By understanding the environmental factors that influenced the American chestnut tree, people to capitalize on favorable conditions or manipulate their conditions to yield a greater profit of trees. Discussing the usefulness of the tree, the author wrote, “All in all, we may consider the chestnut as among our most valuable trees. Its general hardiness, its rapid growth, and its wide range of usefulness, and the ease and certainty with which one may obtain a second crop makes it of first importance, if we consider it from the standpoint of the forester.”[151] The author reinforced the idea that the American chestnut tree was an infinite resources because it could regrow quickly, showing that there was little reason for those in the timber industry to restrain themselves in harvesting the wood. In addition to timber, the tree also produced a bounty of nuts. The author deemed that it was “certainly fair to assume that we will, ere long, come to look at the chestnut tree as a source of food and that in estimating the value of the tree we will estimate its fruit bearing capacity.”[152] The author considered knowing the natural conditions under which the American chestnut tree flourished to be pertinent information given the increased economic attention the tree was receiving. He reflected that both the timber and the nuts had value, and that economics would soon absorb the trees into its realm of cultivated plants.

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[149] “The Chestnut Tree,” 238.

[150] "The Chestnut Tree," 239.

[151] The Chestnut Tree," 239.

[152] "The Chestnut Tree," 239.

Although the American chestnut tree had asserted its place in the timber industry, there were still some cultural ties that preserved the value of the American chestnut tree in American memory. An article from 1896, just a few years shy of the blight outbreak, describes both the practicality and the natural intrigue of the American chestnut tree. "Few people realize the value or beauty of the American chestnut tree," the author claimed.[153] Not only were the nuts profitable, but they had more flavor and were more desirable than the nuts of other species of chestnut trees. Within five years, an American chestnut tree could start bearing nuts, and after fifteen years, the timber could be harvested. However, as the perfect tree, the American chestnut tree offered both utility and beauty. "It is in flower early in July," explained the author, "and is one of the few trees which blossom in mid-summer."[154] Because the flowers bloomed later, the American chestnut blossoms attracted more attention and perpetuated the beauty and fragrances of summer. The author acknowledged that beauty and utility were two necessary components of the American chestnut tree's identity and that focusing solely on utility failed to appreciate the nature of the tree. As he stated, "Its [the American chestnut tree's] popularity as an ornamental and shade tree is shown by the number of cities in whose directories may be found a Chestnut street, named at some time or another for the tree of that name along it."[155] In particular, the Chestnut Street on the East Side of New York City was "a reminder that there were once many trees in downtown New York."[156] Naming city streets after the American chestnut tree exemplified both the favor that Americans showed towards the tree as well as the increasing competition between the natural

[153] "The American Chestnut Tree," *The Kansas City Star*, September 20, 1896, sec. News/Opinion, 8.

[154] "The American Chestnut Tree," 8.

[155] "The American Chestnut Tree," 8.

[156] "The American Chestnut Tree," 8.

environment and urbanization. The street names preserved the memory of a time when the chestnut trees were abundant, acting as a memorial for the landscape replaced by city street and the manmade environment. Although economics and urbanization were transforming Americans' relationship with the American chestnut tree, Americans found ways of both appreciating and memorializing their relationship with and reverence for the tree.

Over the course of the nineteenth century, the attitude that Americans exhibited towards the American chestnut tree transformed from one of humble dependence to one of thoughtless exploitation. The tree's beauty was diminished to a measure of economic profitability, and its great size and admirable qualities fed the economic desire for bigger and better. Although the tree's timber expanded the railroad, its usefulness came at a price as forests suffered from the impacts of the timber industry. Through studying the American chestnut tree, people found ways of capitalizing on the tree's ability to regenerate and produce quality timber by intervening in the cultivation process. The tree was increasingly subjected to the human hand, which diminished the tree's former regality that it held as a trademark of the American landscape. Despite increasing economic incentives, some people fought to preserve the cultural legacy of the American chestnut tree as well as preserve a degree of appreciation for its unique aesthetics. The natural wonder was subdued and conquered, a victim to American economic desires, and its beauty was cast aside for utility. The changing identity of the American chestnut tree reflected a shift in American identity that emphasized exploiting the landscape and placing profits over sustainability.

CHAPTER 4: REACTIONS AND RESPONSES TO THE AMERICAN CHESTNUT BLIGHT

The news of the fungal blight spread as widely and as quickly as the blight itself, which was a testament to the scientific curiosity, concern, and interest in the tragedy that was unfolding along the eastern section of the United States. Throughout the early part of the twentieth century, newspaper and periodical articles provided updates on the latest scientific outlooks, advances in understanding the blight, ideas and experiments for potential treatments, and consequences of the American chestnut tree's decimation. The articles exposed the reasons behind Americans' concern, whether they be cultural, economic, or scientific, which offered insight on the different perspectives of the American chestnut tree's identity. Although devastating, news and information about the American chestnut blight communicated research findings and consequences of the blight while highlighting the evolving relationship between science and the environment as well as the blight's effect on the cultural and economic identities of the tree.

The attention that the American chestnut blight received was indicative of the magnitude of the issue as well as the novel scientific complexities of the problem. G.G Copp's article that appeared in *Scientific American* in 1906 detailed some of the early discoveries made concerning the blight as well as the scientists' plan of action. Copp reported that a disease had plagued American chestnut trees, threatening "the extinction of these trees in and about New

York."[157] Other traces of the disease were appearing in New Jersey, Maryland, and Virginia. George W. Merkel, who was a forester and engineer at the New York Zoological Park, noticed many of the trees dying around the park and that a number of trees in the park's nursery were also infected. Merkel devised a treatment for the trees that he first used on the younger trees then applied to the older trees. He sprayed them with a Bordeaux mixture, a tactic which was only "partially successful."[158] Looking for help, Merkel turned to Dr. W. A. Murrill, who was a mycologist at the New York Botanical Garden. Dr. Murrill made the issue his main focus because the "ravages of the disease ha[d] now become so apparent that the subject [was] one of great economic importance."[159] Copp highlighted that the blight would infringe upon the American chestnut tree's economic profitability, which had grown in prominence over the past several decades. The fungal outbreak created tension between the tree's economic identity and its biological nature. Dr. Murrill's immediate dedication to the issue stressed that the American chestnut tree was a foundational component of the economics within the region and that serious consequences would ensue if the blight were not contained. The line distinguishing saving the tree for the sake of the economics or saving the tree for the sake of the ecosystem was blurred in Copp's account. Not only did Copp provide an update on the blight and the research being conducted on it, but he also showed that even the scientists were concerned about the economic fate of the tree.

Because the American chestnut blight had impending widespread effects, understanding it biologically and sharing research outcomes were essential components of containing the spread of the fungus. Scientists conducted experiments to better understand the effect of the fungus on the

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[157] G.G Copp, "A Disease Which Threatens the American Chestnut Tree," *Scientific American*, December 15, 1906, 451.

[158] Copp, "A Disease Which Threatens the American Chestnut Tree," 451.

[159] Copp, "A Disease Which Threatens the American Chestnut Tree," 451.

American chestnut trees. Copp included a detailed account of the method used to study the fungus, reporting:

> Pure cultures were made by Dr. Murrill from affected chestnut sprouts in the Botanical Garden last autumn, and were transferred to agar and sterilized bean-stems and chestnut twigs. In each of these situations the fungus grew rapidly and fruited abundantly. Living chestnut twigs were infected and placed, with their ends in water, under bell jars for inspection and study of the fungus growth and action as a preliminary to experiments in the field.[160]

Among closed-off experiments, there were observations carried out in the Bronx Park, where the fungus was naturally occurring by that point.[161] Scientists like Dr. Murrill were attempting to recreate the effects of the blight in a laboratory setting to help them acquire a baseline understanding of the foreign fungal species. However, at the observational and experimental stages, there was little that scientists could do to respond to the blight, forcing scientists to adopt a passive stance. Although scientists, like other Americans, wanted to protect the tree, especially for its economic profitability, they had to wait until their experiments yielded results before they could act. While many people desired to put their faith in science to save the American chestnut tree, they were forced to be patient while scientists studied the fearsome fungus. In the meantime, the blight would continue to spread and decimate the population. Despite the promise that science offered to contain and potentially eradicate the blight, it was still subject to nature. The scientists had to learn from the blight before they could stop it, emphasizing that human knowledge could manipulate nature only after it understood it. By discussing the experimental practices of Dr. Murrill, Copp indicated that there was work being done to understand the blight, but the road to understanding was long and slow.

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[160] Copp, "A Disease Which Threatens the American Chestnut Tree," 451.

[161] Copp, "A Disease Which Threatens the American Chestnut Tree," 451.

To know how to respond to the blight, scientists needed to know how it spread and reproduced. Consequently, infected American chestnut trees became objects of observation, indicating a new identity that the tree adopted. The American chestnut tree was no longer an ornament of nature, but a victim of it:

> The Fungus works beneath the cortex in the layers of inner bark and cambium. Its presence is first indicated by the death of the cortex and the change of its color to a pale brown, resembling that of a dead leaf. Later the fruitling pustules push up through the lenticels and give the bark a rough, warty appearance; and from these numerous yellowish-brown pustules millions of minute summer spores emerge from day to day to elongated reddish-brown masses, to be disseminated by the wind and other agencies, such as insects, birds, squirrels, etc. In late autumn and winter spores are formed, which are disseminated from the dead branches the following spring.[162]

Squirrels were no longer friends of the American chestnut tree, contrary to Maggie's experience in "Sunday in a Chestnut Tree." It was no longer the tall, sturdy, and revered behemoth of the forests, but instead the prey of a small organism. Instead, squirrels, birds, and other creatures that aided in spreading the fungus were instruments of the tree's destruction. Even the change of seasons was unfavorable to the tree because it prompted the spores to disperse. In describing the nature of the blight, Copp illustrated nature as destructive instead of cohesive. By falling victim to the blight, the American chestnut tree indicated a shifting relationship that people had with the environment. Instead of appreciating nature for its wonder, science drew attention to the harsh realities of life and death and the potential for majestic wonders like the American chestnut tree to fall victim to a miniscule fungus that depended on the wind and small animals to spread.

Because of the ubiquity of the American chestnut tree in local communities, scientists felt that informing the public was a necessary part of containing the blight. By teaching the public about the blight and its effects, scientists were playing a part in morphing the role that the American

[162] Copp, "A Disease Which Threatens the American Chestnut Tree," 451.

chestnut tree played in communities. No longer was the tree to be looked at as a resource or a natural wonder, but instead as a victim to the harshness of nature. An article from *The Evening Bulletin* reported on the latest news about the "Chestnut Bark Disease" at the local and the regional levels to help people understand the blight and its impending consequences. The Franklin Society in Rhode Island sponsored a lecture to discuss the magnitude of the blight and the looming danger of American chestnut trees in Rhode Island. Professor J. Franklin Collins, who "studied the subject as a representative of the Department of Agriculture," showed slides to provide visuals, including the appearance of the blight on an infected tree, for the lecture.[163] The motivation for holding a lecture presented by a government-issued specialist indicated the importance of the American chestnut tree at the local and national levels as well as the importance of raising awareness about the blight. Common people, not just scientists, needed to be able to identify the fungus because the blight was a widespread crisis, not a matter confined in a science lab. Collins provided some grim statistics, claiming that "there probably [was] not a healthy chestnut tree within 30 miles of New York, and the disease [was] estimated to have done $10,000,000 damage in New York City and the immediate vicinity."[164] Relating the extent of the damage in terms of money lost indicated the economic implications of the blight. By identifying the monetary consequences of the death of the American chestnut tree, Collins reaffirmed the tree's economic identity. His presentation not only informed the public on the magnitude of the blight, but it also impressed upon them that the blight was problematic for biological and economic reasons.

A consequence of informing the public on the state of the blight and the lack of success in mitigating it was growing doubt in scientists' ability to tame the fungus. The blight unleashed a

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[163] "Chestnut Bark Pest Spreads," *The Evening Bulletin,* April 13, 1910, 13.

[164] "Chestnut Bark Pest Spreads," 13.

wave of devastation, and there was also no known way of containing it nor of preventing it from doing future damage. According to Collins, "The cure for the disease, viz. cutting out the diseased areas, is too difficult and costly to warrant its application to forest trees and hardly likely to be practiced even in orchards."[165] Although Collins and other scientists were reliant upon scientific interventions to mitigate the spread of the blight, he had to acknowledge that the breadth of the problem was too great for them to contain by hand. Despite being an economic staple, the American chestnut tree was not worth the investment of time and effort needed to cut the diseased areas, according to the Department of Agriculture representative. Much to their dismay, people had little control over the situation. "'We have tried all the common sense methods for cure that we could think of and now, in despair, are trying all the fool ideas that are suggested,'" Collins confessed.[166] His dismal outlook indicated that there was a possibility that not even science could defeat the blight. His word choice indicated that the blight could not be rationally conceptualized because it was impermeable to common sense methods. In addition to the fear of the blight spreading, there was also the concern that human beings would be powerless in suppressing it. Collins implicitly expressed the harsh realization that human reason and science might not be enough to overpower nature. Although Collins's presentation raised commonly understood concerns such as the financial losses that accompany the blight, his words also hinted at a bigger issue, which was an increasing fear of science's limitations in controlling nature.

The article from *The Evening Bulletin* assessed the spread of the blight at the time, emphasizing that the American chestnut blight was both a local and a regional issue as well as one spawned by economic interests. Although the blight originated in New York, "infected trees [had]

[165] "Chestnut Bark Pest Spreads," 13.

[166] "Chestnut Bark Pest Spreads," 13.

been found in the towns adjoining Providence."[167] However, large-scale tree production in other states has also worsened the situation. The article explained, "In southwestern Connecticut, New Jersey and Pennsylvania chestnut orcharding is carried on a large scale and was proving highly profitable until the bark disease appeared."[168] The reference to the profitability of the American chestnut tree emphasized that the primary concerns surrounding the blight were the economic consequences. Both local and regional economies would suffer from the timber losses. However, the article indicated that economic interests were partly to blame for the spread of the blight: "In these orchards grafting on native trees was practiced, and Prof. Collins's investigations showed that the disease was spread widely through infected nursery stock. Many nursery-men were ignorant of even the existence of the disease that their stock was spreading."[169] Economics motivated orchard owners to use grafting, a process involving taking the tissue of one tree and combining it with the tissue of another, to produce the most desirable trees. However, in doing so, they inadvertently worsened the blight situation. The American chestnut tree had had a growing economic influence in recent decades, but in asserting the tree as a commercial product, people upset the balance of nature, creating a situation out of their control that had regional implications.

The American chestnut blight posed a unique challenge because it marked the intersection of individual and regionally cooperative efforts to contain the blight. Pennsylvania was one of the first states to attempt a unified response, and in 1912, Governor John Tener of Pennsylvania held an assembly in the House of Representatives to discuss methods of halting the spread of the chestnut blight. Composed of scientists, foresters, businessmen, and bureaucrats hailing from

[167] "Chestnut Bark Pest Spreads," 13.

[168] "Chestnut Bark Pest Spreads," 13.

[169] "Chestnut Bark Pest Spreads," 13.

different states, the assembly's goal was to concoct a robust and effective plan to contain the spread of the infectious fungus.[170] Within a few years, the chestnut blight had made its way to ten states, and Governor Tener had previously showed his dedication to the issue one year earlier when he signed a bill that allocated $275,000 (about $5.6 million in today's rates) to combat the rampaging blight. In Pennsylvania, the blight had already had devastating effects on the eastern part of the state, and Tener's plan "was audacious—and heartbreakingly naive."[171] The eastern half of Pennsylvania had already fallen victim to the blight, so Tener sought a way to confine the spread. Freinkel explains the plan that Tener devised, writing, "The state would cut out every single infected chestnut tree--and if need be, healthy ones as well—in the western half of the state."[172] Tener sought to create a division between the east and the west as a means of isolating the infectious fungus. However, the Pennsylvanians were moved more by passion than science, and they were ill-equipped to combat the enemy with their simple saws and axes.[173] The plan's execution involved cutting down any chestnut trees that showed signs of infection. "The tree had to be cut close to the ground, and the lumber, as well as the stump, stripped clean of its bark, where the fungus resided. At that point, the wood could be salvaged for use," but "the field agents never considered that they might be spreading the deadly spores on the soles of their boots or the blades of their axes," comments Freinkel.[174] However, the plan would only work if there was some economic return, so "the commission persuaded the railroads to offer reduced freight rates for the

[170] Freinkel, "Let Us Not Talk about Impossibilities," 48.

[171] Freinkel, "Let Us Not Talk About Impossibilities," 49.

[172] Freinkel, "Let Us Not Talk About Impossibilities," 49.

[173] Freinkel, "Let Us Not Talk About Impossibilities," 49.

[174] Freinkel, "Let Us Not Talk About Impossibilities," 63.

blighted timber."[175] Naysayers like Murrill had little faith in the effectiveness of the Pennsylvanians' efforts and instead viewed it as a waste of money and resources. Although Murrill had originally suggested cutting down both infected trees and trees within about a half-mile radius of infected trees, he did not intend for his suggestion to be carried out as a large-scale, state-wide procedure.[176] Pennsylvania's vigorous response to the American chestnut blight expressed that the state eagerly took action to defend the prized tree, acting on passion as opposed to science.

The rapid spread of the fungus meant that states had to devise their own eradication plans to protect not only their own forests, but also the forests in neighboring states. The blight knew no borders, so it was both a local and a regional issue. Metcalf noted that the individual and cooperative efforts of the states were crucial because "[a]ll Washington [D.C.] could do was appropriate money for research, and not much at that. It was up to the states to muster their own defenses by establishing their own quarantine lines."[177] Priority areas that had a large number of American chestnut trees, like Appalachia, covered multiple states, meaning that any efforts to protect the trees would require multi-state cooperation. The American Association for the Advancement of Science encouraged all of the states in the Appalachian region to allocate anywhere between $50,000 and $100,000 to both save the chestnut trees and to eradicate the blight.[178] Saving the chestnut tree was a local, federal, and scientific investment, which was a testament to the magnitude of the crisis.

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[175] Freinkel, "Let Us Not Talk About Impossibilities," 63.

[176] Freinkel, "Let Us Not Talk About Impossibilities," 50.

[177] Freinkel, "Let Us Not Talk About Impossibilities," 52.

[178] Freinkel, "Let Us Not Talk About Impossibilities," 52.

While Pennsylvania was patriotically eager to defend its land by pouring money and manpower into saving the American chestnut tree, Virginia's political leaders were more hesitant to invest time and resources into the cause. Chestnut trees made significant contributions to the state's economics, accounting for about $2.5 million annually, which is about $50 million by today's standards. Although there was legislation that designated funding towards saving the trees, it only amounted to five thousand dollars. The funds went towards the establishment of the Chestnut Blight Laboratory at Virginia Polytechnic Institute and State University led by Flippo Gravatt, a trained plant pathologist.[179] While Gravatt could see the grim reality of the blight spreading from the northern to the southern part of the state, he also watched as the cicada outbreak of 1911 only worsened the matter. The infestation enhanced the damage of the blight because "the insects' nibbling left chestnut trees in the afflicted areas covered with minute wounds. Each tiny puncture was a doorway for the ravenous spores, a direct corridor to the vital cells under the bark."[180] Like Pennsylvania, Virginia issued cutting projects, but on a much smaller scale. Gravatt's "only objective was to delay it, holding back the main line of infection long enough for landowners in Virginia, as well as the other Appalachian states, to profit from their timber."[181] Unlike Pennsylvania, which was determined to preserve the American chestnut tree through the vigor of the American spirit, Virginia was more concerned with the investment to save the trees, only offering as much time and effort necessary to secure a profit from the trees before they died.

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[179] Freinkel, "A Whole World Dying," in *American Chestnut*, 73.

[180] Freinkel,"A Whole World Dying," 74.

[181] Freinkel,"A Whole World Dying," 74.

As time went on and the blight continued to rage, newspaper articles provided updates on the status of the blight as well as the research being conducted on it. The appearance of the American chestnut blight as the subject of newspaper articles exemplified the newsworthiness of the tragedy. However, as research was evolving, scientists held different perspectives on the blight. An article from a 1914 edition of the *Springfield Republican* reported on the outlook for the American chestnut tree in light of the blight. Professor A.H. Graves, who had been doing research at Yale, deemed the American chestnut tree to be "doomed."[182] The article explained Graves's reasons for making such a claim, stating, "Between the ravages of insects, fungi, and man, the great natural resisting power of Castanca dentate [the American chestnut tree] can hardly avail to save it."[183] Despite the American chestnut tree's strength and durability, it faced other threats besides the blight. Although the fungus was clearly a threat, Graves also considered man to be a menace to the majestic tree. When considered along with Collins's report on orchard men grafting trees freely and claims of harvesting timber without replenishing the forests, Graves's assertion appeared to be sound. Having the threat of mankind compared to the threat to the American chestnut as the fungus, which had already decimated the species, was indicative of how drastically Americans' relationship with the tree had changed. Just like the blight, humanity posed the threat of a natural disaster.

Although the American chestnut tree was under threat for multiple reasons, including the influence of mankind, scientists had not yet given up hope on generating a biological solution, showing that there was still faith in science's ability to dictate nature. Graves had been conducting crossbreeding experiments with a "more resistant" species, producing a Chinquapin-Asiatic hybrid

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[182] "Toughening the Chestnut," *Springfield Republican,* August 21, 1914, 13.

[183] "Toughening the Chestnut," 13.

with the hope of performing similar experiments with cross breeding a Chinese chestnut tree and an American chestnut tree.[184] However, science could not improve upon what nature had already perfected. "An immune, or at least highly resistant, Chinquapin-Asiatic hybrid has been obtained. Because of its small size this will probably be of little value as a wood producer," the article detailed.[185] Even if the scientifically bred chestnut tree were to be resistant to the blight, the tree would have significantly less economic promise because it would not bear the same favorable characteristics of the American chestnut tree. The result was necessary to point out because economic profitability had become intimately intertwined with the tree's identity, showing that economics were still at the forefront despite the impending ecological tragedy. However, "Graves calls attention to the probability that a similarly immune hybrid, of forest timber size, might result from a cross between the Chinese chestnut and our native tree."[186] Graves sought to use science not only to preserve the American chestnut tree but to also preserve its desirable qualities that made its timber ideal. Even though Graves acknowledged that humanity posed a considerable threat to the American chestnut tree, he had no reservations about using science to breed two species of trees that did not naturally mix to generate a tree suitable for American economic interests.

The blight affected different regions and varying ways, but the newness of the blight made devising an appropriate response a challenge. A newspaper article published in Portland, Oregon, in 1914 reported on the arrival of the chestnut blight in Seattle, Washington as a result of the importation of Japanese chestnut trees. "The 1500 trees in the shipment will be burned" and the

[184] "Toughening the Chestnut," 13.

[185] "Toughening the Chestnut," 13.

[186] "Toughening the Chestnut," 13.

"chestnut blight has threatened entire destruction of the American chestnut tree, which is abundant in the forests east of the Mississippi River, and has already caused enormous losses," the article stated.[187] Although there were significantly fewer American chestnut trees in the Pacific Northwest as there were along the East Coast, people were learning that mixing foreign species with domestic species could be problematic. However, despite knowing that the blight arrived in the United States via shipments of Japanese chestnut trees, importations of Japanese chestnut tree would continue. The article promised, "Future shipments will be inspected closely," but it offered no guarantee on preventing infected trees from being imported.[188] There was the possibility that importing the Japanese chestnut tree might be part of a plan to replace the dying American chestnut tree with the foreign species. The article explained, "The Japanese chestnut has been supposed to be immune from the disease and preparations had been made for large importations."[189] Not only did the article indicate that the American chestnut blight was having national consequences, but it also indicated that the trees were just another commodity. Although the latest shipment was to be burned because it was tainted by the blight, there would be plenty more shipments, which would presumably meet the same fate if they carried the blight. Consequently, from the perspective of Japanese chestnut tree imports, the blight was a defect in a product than the proponent of a natural disaster. The economic identity of the trees conflicted with scientific understanding of the blight. Despite the destruction that the blight had already caused on the eastern side of the Mississippi River, there were no intention of halting the importation of the foreign species, despite the risk of importing infected trees. The article reflected that not only did the American chestnut blight have

[187] "Japanese Chestnuts Affected," *Morning Oregonian*, March 20, 1914, sec. News/Opinion, 14.

[188] "Japanese Chestnuts Affected," 14.

[189] "Japanese Chestnuts Affected," 14.

national implications, but that the identity of chestnut trees as a commodity prevented people from realizing the magnitude of the blight and the importance of taking preventative actions.

The chestnut blight not only altered the landscape, but it also wrought cultural and economic shifts. An article from a 1917 edition of the *Wilkes Barre Times Leader* reported that by 1917, American chestnuts were very hard to find. In fact, "[y]ou can walk for miles through the woods of some section and never see a chestnut burr."[190] The lack of chestnuts was devastating because they were an important food and economic staple to many people. The author of the article captured the intersection of culture with economics when he explained, "The sizzling roasting pans with which fruit stands formerly did a flourishing business now rarely roast anything but popcorn, and persons desirous of celebrating Hallow'een according to its ancient traditions are having as much difficulty in procuring chestnuts for the event as patriotic little boys have in obtaining firecrackers with which to celebrate the Fourth."[191] From the author's perspective, culture and economics influenced each other when it came to selling chestnuts. The ubiquity of street vendors selling chestnuts was an aspect of local identity as well as a sign of a flourishing small business endeavor. Additionally, roasting chestnuts was engrained in a holiday tradition, which emphasized the place that chestnuts held in American culture. The author of the article went to great lengths to emphasize that the American chestnut tree had more than economic value: "For, alas, the American chestnut tree—dear to poets, humorists and epicures of this country—is afflicted with a blight that is rapidly forcing it out of existence."[192] The American chestnut tree

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[190] "Blight Forcing Chestnut Trees out of Existence. Scourge Crept into This Country from China About Five Years Ago," *Wilkes Barre Times Leader*, October 15, 1917, sec. News/Opinion, 7.

[191] "Blight Forcing Chestnut Trees out of Existence. Scourge Crept into This Country from China About Five Years Ago," 7.

[192] "Blight Forcing Chestnut Trees out of Existence. Scourge Crept into This Country from China About Five Years Ago," 7.

inspired creativity, which preserved the special place that the tree and its nuts held in people's lives. The author acknowledged that the American chestnut tree was a valuable economic resource, but he also unequivocally enforced that it also bore a notable amount of cultural symbolism that shaped American creativity and imagination.

Although there was reason to mourn the loss of the American chestnut tree for its cultural significance, the impending economic losses were drastic. Researchers within the Department of Agriculture had grim prospects for the fate of the beloved species, and as of 1917, the Department declared that within two more years, chestnut trees would be wiped from the forests. Reportedly, the chestnut forests "were worth over fifty million dollars; now, they are worth hardly half a million."[193] The blight was an economic tragedy, as well as a natural one. For many, the devastating reality of the situation was amplified by their feeling of helplessness, especially because of the lack of successful and immediate scientific advancements to combat the blight. Commenting on the overlap in timing between the blight and World War I, the author conceded, "It is not one of those innumerable calamities that will end with the war."[194] Amidst domestic turmoil, there were also troubles on American soil as scientists attempted to combat the biological warfare that the fungus waged on the trees. Families' tables, railroad companies, farmers, and other industries were suffering with the disappearance of the American chestnut tree because "the chestnut tree [was] valuable from the trunk up. Every part of it can be utilized."[195] The anticipated feelings of loss that people in various walks of life experienced was a testament to the role of the American chestnut tree as a pillar of American life. Influencing agriculture,

[193] "Blight Forcing Chestnut Trees out of Existence," 7.

[194] "Blight Forcing Chestnut Trees out of Existence," 7.

[195] "Blight Forcing Chestnut Trees out of Existence," 7.

economics, transportation, domestic life, and culture, the American chestnut tree supported many aspects of American life, and its decimation threatened to bring many changes, including changes to Americans' relationship with the environment.

Although no scientific solution had proven successful in combatting the American chestnut blight, scientists continued investigating ways to save the tree. "Inasmuch as the blight which his destroying the chestnut tree crept into this country from China," the article stated, "the scientists of the department of agriculture made investigation in that country."[196] Through returning to the source, researchers found that the Chinese and Japanese species of chestnut trees were actually immune to the blight. However, they did not possess the same desirable qualities as the American chestnut tree: "One of them is a short bush with large nuts not as sweet or as tender as American chestnuts, and the other is a tall hardwood tree whose nuts are not edible at all."[197] Consequently, the two alternative species could provide nuts and timber, but the all-in-one appeal of the American chestnut tree would die with the blight. No other cultivated nut was as abundant or as great of a staple in American diets, and the scarcity of the nuts came as a harsh blow during wartime.[198] Although science showed that other species of chestnut tree could produce nuts and timber, they would have difficulty replacing the American chestnut tree, a model of resourcefulness and versatility.

By 1923 the fate of the American chestnut tree was looking very grim. People watched helplessly as it slipped away with little hope of recovering. Newton Fuessle covered a number of issues surrounding the American chestnut blight, starting with the cultural impact and hopelessness

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[196] "Blight Forcing Chestnut Trees out of Existence," 7.

[197] "Blight Forcing Chestnut Trees out of Existence," 7.

[198] "Blight Forcing Chestnut Trees out of Existence," 7.

inflicted upon the people by the blight. He opened his article by stating, "The autumnal fragrance of a pan of chestnuts roasting over a ruddy little bed of charcoal is almost a thing of the past."[199] Roasting chestnuts, an act that was inseparable from the season, was growing increasingly scarce as the number of American chestnut trees plummeted. By emphasizing the tragedy of the loss, Fuessle indicated that traditions such as roasting chestnuts had become engrained in American life and would be missed. Urban areas were known for having chestnut vendors selling the roasted nuts as the weather turned cold: "The swarthy vender, balancing himself and his apparatus adroitly along the curb where the traffic of city streets is invariably the thickest, must soon be abandoning his usual stock in trade during the hazy days of October and November, when nothing smells so good as a chestnut."[200] The familiar sights and smells associated with the chestnuts were disappearing with the blight, leaving a noticeable gap in the corners of American life. Fuessle mourned the loss of a common experience of seeing chestnut vendors that was characteristic of New England and the Mid-Atlantic states. His tone expressed the fear of a future without chestnuts, a future that was on the horizon because "the native American chestnut trees are practically extinct along the Atlantic coast to-day, and it is believed that nothing can stop the blight that is gradually consuming the ones that remain."[201] Overcome with a sense of defeat, Fuessle acknowledged that the lack of success in containing the blight did not bode well for the future of the tree. Fuessle was mourning more than the loss of the tree; he was mourning the loss of tradition

[199] Newton Fuessle, "Plagues That Imperil Our Trees and Plants: How Uncle Sam Quarantines American Ports Against Infected Nursery Stock, Stamps Out Plant Epidemics, and Keeps Vigilant Scientists on Guard Against the Spread of Infections," *Outlook*, July 4, 1923, 329.

[200] Fuessle, "Plagues That Imperil Our Trees and Plants," 329.

[201] Fuessle, "Plagues That Imperil Our Trees and Plants," 329.

and culture, the loss of common experiences that united people and offered them the comfort of familiarity.

Just as the blight was an ongoing cultural tragedy, it also resulted in continual economic losses as it spread across the eastern half of the country. The blight acted quickly, and "as early as 1911 [it] had already devastated fully $25,000,000 worth of timber," spreading "at a rate of about twenty to twenty-five miles a year with a virulence that science has been unable to check."[202] The blight appeared to be a whirlwind of destruction, consuming the timber industry while also engulfing the forests. Fuessle echoed the common fear of the blight's potential to defy science and be unstoppable. Although trees in New York, New Hampshire, and Virginia had fallen victim to the fungus, the more southern reaches of the tree's native range were yet to be conquered. However, Fuessle confessed that "even the forest pathologists of the United States Department of Agriculture admit their inability to protect the trees of the region against it" and that the "trees are doomed."[203] Although economic losses were a concern, Fuessle included them as a way of emphasizing the scale of the issue and the anxiety over scientists' lack of success in containing the blight, let alone eradicating it. Fuessle acknowledged that the blight had financial implications, but he framed the bigger issue to be the blight's apparent invincibility and the reality that human beings could not conquer nature.

Although scientists were yet to devise an effective solution to the blight, they formulated some ideas to mitigate the spread and prevent future biological environmental tragedies. One of the potential preventative measures involved monitoring the health of imported plant species. Explaining the rationale behind plant quarantining, Fuessle wrote, "Quarantining American ports

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[202] Fuessle, "Plagues That Imperil Our Trees and Plants," 329.

[203] Fuessle, "Plagues That Imperil Our Trees and Plants," 329.

against the entry of immigrants infected by contagious diseases has long been a painstaking measure of public safety. But plant quarantines to protect American trees and plants against the importation of diseased nursery stocks is a development of only recent years."[204] Just as immigrants had to be inspected for public health reasons upon arriving in the country, so too should foreign plants. The American chestnut blight acted as a prime example of the consequences of not inspecting imported plants because the "blight unquestionably owe[d] its origin to the admission of diseased nursery stock from Japan."[205] Fuessle portrayed the American chestnut blight as an instigator for Americans to become more aware of what was entering the country. However, interestingly, the solution was to inspect imported plants instead of banning them, showing that people still believed that they could mix domestic and foreign species without risking another environmental disaster. The devastation of the American chestnut tree inspired people to view imported plants as immigrants that need to be inspected and quarantined, becoming more defensive and skeptical of what entered the country.

The seriousness of the American chestnut blight issued an awakening of awareness of environmental fragility, inspiring Americans to take steps to protect their staple crops from the ravages of foreign pathogens. After seeing the blow dealt to the chestnut crop, people became fearful of similar devastation falling upon other staple crops such as apples, potatoes, corn, and wheat. The onset of the blight caused by the foreign fungus "marked the advent of an era of exceedingly interesting and dramatic warfare that has since been waged vigilantly, resourcefully, and incessantly by Uncle Sam against pathological perils that trees and plants, no less than the

[204] Fuessle,"Plagues That Imperil Our Trees and Plants," 329.

[205] Fuessle, "Plagues That Imperil Our Trees and Plants," 329.

human body, are heir to."[206] Any threat on American soil, whether it be to the people or to the flora, was not to be taken lightly but instead combatted with a determined American spirit. Fuessle subtly compared the blight and other foreign plant pathogens as threats to the nation that must be suppressed with warlike dedication and effort, instilling a sense of environmental patriotism. As a protective and cautionary measure, a "total of fifty-four different plant quarantines have been issued, of which thirty-five continue in force."[207] Just as Americans attempted to protect themselves from diseases brought by immigrants, the Department of Agriculture issued an incredible amount of plant quarantines as a way of protecting the country's native species. Defending American plant life was just as important as protecting the lives of Americans, offering a new perspective on the value of the environment in the United States. "It is as important, from the point of view of human life," Fuessle wrote, "to protect our ports against these afflictions, as it is, from the point of view of human life, rigidly to bar from our ports of entry immigrants suffering from scarlet fever, yellow fever, or smallpox."[208] The American chestnut blight had made people realize the potential devastation that could occur from mixing foreign and domestic species, giving them a reason to rally behind a sense of environmental patriotism and protect their own. The issue of the American chestnut blight was not just a biological and environmental one, but it was also an issue of national security, a threat originating outside of the nation's borders.

Much of Fuessle's language was evocative of the anti-immigration attitudes that were prevalent throughout the end of the nineteenth century and beginning of the twentieth century. The legacy of negative attitudes towards immigrants in the United States originated around 1880,

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[206] Fuessle, "Plagues That Imperil Our Trees and Plants," 329.

[207] Fuessle, "Plagues That Imperil Our Trees and Plants," 329.

[208] Fuessle, "Plagues That Imperil Our Trees and Plants," 329.

which marked the birth of the concept of Americanization. American-born citizens became concerned by the waves of immigrants flooding the nation. As Anne C. Schenderlein explains, "Americanization initiatives were generally geared to transforming immigrants into 'good Americans' by teaching them English and educating them about the country's history, politics, economy, laws, customs, and ways of life."[209] These initiatives "remained particularly strong until the passage of the National Origins Act of 1924, which restricted the immigration of eastern and southern Europeans and essentially stopped that of Asians."[210] While many immigrants were viewed as a threat to American identity, Japanese immigrants in particular were also seen as a threat to American ecological and human health. Jeannie N. Shinozuka describes that "dominant images of Japanese and Japanese Americans as a contagious and poisonous yellow peril played a key role in shaping anti-Asianism, including legislation that sought to exclude foreign plants and human immigrants."[211] Bubonic plague outbreaks on the West Coast in the 1890s led many skeptical Americans to associate Chinese and Japanese immigrants with plague and pestilence. Other issues with imported foods caused the USDA to blame Asian imports for bringing invasive species that damaged crops such as citrus trees.[212] "The perception of Japanese immigrants as a menace," writes Shinozuka, "continued in the 1910s in the form of contaminated fish sold by the isseri [Japanese immigrants], chestnut bark disease believed to be imported from Japan, and the destruction of thousands of original Japanese cherry trees that would have been

[209] Anne C. Schenderlein, "Americanization before 1941," in *Germany on Their Minds: German Jewish Refugees in the United States and Their Relationships with Germany, 1938-1988* (Berghahn Books, 2020), 25.

[210] Schenderlein, "Americanization before 1941," 25.

[211] Jeannie N. Shinozuka, "Deadly Perils: Japanese Beetles and the Pestilential Immigrant, 1920S-1930S," *American Quarterly* 65, no. 4 (December 2013): 831.

[212] Shinozuka, "Deadly Perils," 832.

planted in Washington, DC, had they not been infested."[213] Fuessle was writing at the height of anti-immigration sentiments, publishing his article just one year before the National Origins Act of 1924 was passed. His opinions about quarantining plants and defending American flora from unwanted pests was an allusion to the anti-immigration attitudes of the time.

Along with expressing his anxieties and concerns about the blight and importing plants, Fuessle also provided an update on the work of Dr. Metcalf, the head pathologist working for the government to contain plant pathogens.[214] Metcalf initially "urged the Government to open official fire upon the chestnut blight long before actual operations were undertaken; and again it was he who advised that the fight be abandoned when it became clear to him that it could not possibly be won."[215] Dr. Metcalf was a pioneer in the field of tree pathology, which has been understudied prior to the outbreak of the blight. Although little could be done to protect the American chestnut tree from foreign pathogens after the arrival of the blight, its fate testified to the importance of the field of research and the hope that science might be able to help prevent similar devastations in the future. Fuessle portrayed Dr. Metcalf as an advocate for regulating imported plants, stating, "He [Dr. Metcalf] was the first to recognize that the chestnut blight was an imported disease, and since 1908 has constantly preached the doctrine that it is easier to keep out a foreign peril to plants than to fight it once it is intrenched."[216] Dr. Metcalf's research showed that preventative measures were more effective than responsive ones, encouraging people to consider the consequences of importing plants. Despite having little hope of a cure, the American

[213] Shinozuka, "Deadly Perils," 833.

[214] Fuessle, "Plagues That Imperil Our Trees and Plants," 330.

[215] Fuessle, "Plagues That Imperil Our Trees and Plants," 331.

[216] Fuessle, "Plagues That Imperil Our Trees and Plants," 331.

chestnut blight acted as a catalyst, inspiring research in the under-explored field of plant pathology with the hope of protecting other domestic plant species from foreign enemies.

The American chestnut blight not only instigated advances in the field of plant pathology in the United States, but it also motivated Congress to act by establishing regulations and protocols for imported plants to avoid future crises. Already a cultural, economic, environmental, and scientific issue, the American chestnut blight also influenced national politics. In 1912 Congress passed the Plant Quarantine Act, which instituted the Federal Horticultural Board to inspect plant imports and to establish quarantining protocols. Once the Board began inspecting imported plants, it became very aware of the importance of inspection: "The rapid discovery of one new disease after another became so alarming to the Board that public hearings were held to arrive at a basis of reasonable yet sufficient action."[217] A mandate from June 1, 1919 issued the "general exclusion of all nursery stock except fruits, vegetables, cereals, and seeds."[218] The Board attempted to strictly regulate the species entering the country while respecting people's dependence on imported plants for food. However, the mandate "caused a storm of protest, and has resulted in almost continuous controversy."[219] The people were upset by having their ports regulated, indicated another carnation of the economic upset caused by the blight. The blight had extended its influence to include legal and federal matters, which was a testament to its multifaceted expansiveness. The federal government was picking up the states' slack on enforcing plant quarantines, which "developed into a general rigid limitation of entry, but now it seems that the point has been reached at which the authorities must strike the proper balance between a rigid general quarantine and the

[217] Fuessle, "Plagues That Imperil Our Trees and Plants," 332.

[218] Fuessle, "Plagues That Imperil Our Trees and Plants," 332.

[219] Fuessle, "Plagues That Imperil Our Trees and Plants," 332.

pressing requirements of America as a factor in world trade."[220] Not only was the American chestnut blight compromising domestic economics, but it was also negatively influencing the United States' role in the global economy as well. The blight was an issue of competing values: domestic safety versus economic prestige.

To draw attention to the necessity of the government's intervention to prevent future plant pathogen outbreaks, Fuessle utilized patriotic language and imagery, depicting fighting foreign pathogens as a war fought for the American people and landscape. Despite lacking proper funds and public support, the government would continue regulating imports because "the men charged by the Government with keeping infections out of our ports are making one of the bravest and most brilliant fights ever conducted on behalf of the American public."[221] Fuessle viewed plant quarantining as an issue that transcended economics and politics, one that was for the greater good and being selflessly waged. The American chestnut blight was not the first foreign plant pathogen to wreak havoc on domestic species, and it would not be the last. He applauded the government's fight and saw it just as much as a means of protecting the people as it was of protecting the plants. In explaining the seriousness of the threat and the paranoia of the unknown, Fuessle wrote, "In torrid jungles and in distant forests unknown and unnamed infectious diseases of plants are thriving, and are lying in wait for the opportunity to attack American fields and orchards."[222] The foreign plant pathogens were the enemy, and they were targeting American soil. The people needed the government's intervention to protect them as well as to protect the bounty of the American landscape. Fuessle evoked a sense of patriotism as well as a suspicion of foreign plants

[220] Fuessle, "Plagues That Imperil Our Trees and Plants," 332.

[221] Fuessle, "Plagues That Imperil Our Trees and Plants," 332.

[222] Fuessle, "Plagues That Imperil Our Trees and Plants," 332.

to instill the idea that another outbreak like the American chestnut blight would be just as serious as war waged by a foreign nation.

Americans reacted and responded to the American chestnut blight in various ways, mourning the loss of the tree's cultural and economic influences while fearing the devastation of outbreaks among other species. Although many people had hope that science would provide a solution, they realized that nature was far more complex than they anticipated, and they had mixed reactions to the importation restrictions, highlighting that people were conflicted between preserving economics and protecting the American landscape. For much of the beginning of the twentieth century, the fate of the tree was grim at best, but scientists remined dedicated to finding a way of protecting the tree, showing that the tree held such an important place in American life that it was worth fighting for the impossible. While tragic, the American chestnut blight forced Americans to confront the potential dangers of mixing imported plants with domestic species. However, people like Fuessle patriotically and nationalistically rallied behind the government-issued plant quarantines because they were meant to protect both the American soil and the people from pathological enemies. The way that the blight raised cultural, economic, political, and scientific concerns exemplified the complex, multilayered, and evolving relationship that the American chestnut had with the American people.

EPILOGUE

Over a century after the outbreak of the blight, Americans are still fighting for the American chestnut tree. Although few people today can recall a time when chestnut vendors populated streets or when chestnutting adventures were a favorite pastime, the American chestnut tree has solidified its place in American history and identity. Today, many of the people who keep the memory of the American chestnut tree alive are scientists, but the establishment of the American Chestnut Foundation and other local organizations have offered an opportunity for volunteers, young and old, to have a hand in the tree's restoration process and to have a taste of the intimate relationship that their ancestors shared with the tree. The blight radically transformed the perspective that people had of the tree. It no longer bears the same cultural symbolism nor the same economic identity that it bore in the nineteenth and early twentieth centuries. However, it has acquired a new identity. Instead of educating children on moral values, it teaches them about science, conservation, and biodiversity. Although the American chestnut tree can no longer link generations through shared experiences, the efforts to bring back the tree express forethought for the next generation and the desire to leave the world a better place. The American chestnut tree's ability to not only evade complete extinction but to also combat oblivion indicates that the tree has become and remains a symbol of perseverance and determination.

Although the people who witnessed the grandeur of the chestnut tree had long since faded, there were some people who were alive during the tail-end of the reign of the American chestnut tree, and their stories not only preserve the memory of the tragedy, but they also bridge the gap

between the tree's demise and its comeback. The modern efforts to bring back the tree has given people the opportunity to reflect on their fond childhood memories and have hope that future generations could also enjoy the American chestnut tree. Al Southwick, an elderly opinion columnist for a local Worcester newspaper, was inspired by a recent news report on the chestnut harvest from a nearby park. He appreciated the work that many people were performing "in the long campaign to return the American chestnut tree to its former health and glory."[223] Living through the 1930s, Southwick has some recollections of the time when American chestnut trees naturally populated the forests, despite its decreasing abundance. Reminiscing over his childhood memories on his remote farm in Leicester, MA, Southwick writes, "Our days were spent among the trees, cutting wood for the furnace and kitchen stove and narrow saplings for fences and gates, for repairs to the barn, sheds and other outbuildings."[224] Southwick offers a living testament to the practical uses for the American chestnut tree in the country lifestyle, and he expresses a sense of dependency on the woods that enveloped his family farm. The separation between nature and the built environment was very slight for Southwick because so much of his constructed surroundings came from the American chestnut trees. At a personal level, the American chestnut tree had maintained an obsolete, subsistence-based relationship with Southwick and his family that was otherwise largely lost when the American chestnut tree overtook the timber industry. Southwick's memories preserve the sense of dependency and reliance on the American chestnut tree that was characteristic of the nineteenth century, and his ability to share his memories in the twenty-first century keeps the sense of respect and reverence for the tree alive.

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[223] Southwick, "Al Southwick: The Chestnut Tree--a Storied Past, Tragic Decline and Hopes for Its Future," telegram.com, October 25, 2018, https://www.telegram.com/opinion/20181025/al-southwick-chestnut-tree---storied-past-tragic-decline-and-hopes-for-its-future.

[224] Southwick, "Al Southwick."

By vocalizing his personal encounters with the American chestnut tree and the stories told by his elders, Southwick plays a crucial role in connecting the generation that grew up with the American chestnut tree and the generation that was saving it, reaffirming the importance of bring back the tree. Southwick has not been able to experience the American chestnut tree the same way that his father did, but by sharing his recollections of his father's stories, he sustains the place that the American chestnut held in American life and the sense of envy towards those who were able to witness the tree's former majesty. "I never got to share in the annual rite that my father would tell us about from the turn of the century," Southwick longingly writes. "In those days people in October collected chestnuts by the bushel, their bristly burrs cracked open by the frost. They were a delicacy, munched on during the long winter evenings."[225] Although nearly gone, the American chestnut tree was never forgotten. The personal relationship that many people built with the tree through chestnutting had become ingrained in American memory. Southwick's father offered his memories as a way of sharing chestnutting with his children. He kept the thrill of the adventure and the wonderment of the natural bounty alive by imparting his sense of privilege to harvest the nuts. Although rejoicing over an abundance of chestnuts was a thing of the past, the annual ritual had given people such fond memories that they felt the need to share them with those who could not experience chestnutting so they could have some share in the former tradition.

Although Southwick could not experience chestnutting the way that his father did, he and his brothers invented other ways of deriving joy and pleasure from the tree as it was dying, showing that people's relationship with the American chestnut tree was adaptable to the changing times. Because the dying trees did not produce any nuts, they boys found uses for the bark, which they would peel off the decaying trunks and use to construct makeshift tents. Scouting the forest, they

[225] Southwick, "Al Southwick."

would “tug on the bark, detach it from the trunk, then pull it off in sheets ten or twenty feet long.”[226] He recalled a sense of childlike wonderment and awe towards the trees, which were his play companions. However, Southwick notices the absence of both the experience and those who had a similar relationship with the trees: “I find it sad that, now that my brothers are gone, there isn’t a single person I know with whom I can share those rich memories.”[227] Because the American chestnut tree had grown more and more scarce throughout the twentieth century, fewer and fewer people witnessed the trees in their natural environment. Unlike his father, Southwick has trouble finding people who share his memories or can relate to them because of the damage that the blight inflicted on the American chestnut population. As the trees faded, so did opportunities for people to experience the trees and for people to incorporate them into their daily lives. Although Southwick wants to preserve the legacy of the American chestnut tree and its role in youthful pleasure, he feels a sense of isolation because he and his memories have outlived the trees, making his testimony even more crucial to the preservation of the tree’s cultural identity.

Southwick’s youthful encounters with the American chestnut tree have given him a greater appreciation for the tree’s admirability as well as a better understanding of the role that the tree played in American society decades ago, reaffirming the importance of bringing the tree back. He has vivid memories of seeing the dying chestnut trees that had lost their bark because “they stood out in the woods like so many gigantic ghosts among the maples, birches, oaks and ash.”[228] Even while the tree was dying, Southwick could tell that the American chestnut tree was remarkable. He recalls, “One chestnut on our property was almost six feet in diameter—the largest tree I ever saw

[226] Southwick, "Al Southwick.”

[227] Southwick, "Al Southwick.”

[228] Southwick, "Al Southwick.”

in New England. Slowly decaying, it stood for decades as a lonely reminder of its past glory, when it probably cast shade over a half acre around it."[229] Although smaller than previous generations of the American chestnut tree, Southwick acknowledges that the tree stood out, and its legacy and reputation preserved its glory even as the tree physically decayed. Southwick also recounts that working at his father's sawmill business deepened his appreciation for the versatility of the American chestnut tree. "Fifty years after the chestnuts had died in the great extinction," Southwick writes, "chestnut wood was still sound. It had a marvelous resistance to decay. In the 1940s we were sawing out planks and boards as solid and sturdy as they would have been a century earlier."[230] The American chestnut tree's resistance to decay was symbolic to its resistance to fading into oblivion. Although the blight had been decimating the species for over a century, the tree had established itself as a subject of American fondness and appreciation, and its former reputation would help it live on even after it died.

While Southwick's narration of his personal experiences with the American chestnut tree preserve its memory, Paul R. Galloway's account recalls the early efforts of the American Chestnut Foundation, adding a new chapter to the American chestnut tree's story. In the 1990s, Galloway came across an article about Dr. Charles Burnham of the University of Minnesota, a geneticist conducting research on methods to bring back the American chestnut tree. Burnham's idea was based in genetics and involved cross breeding the Chinese chestnut tree, which was resistant to the blight, with the American chestnut tree. However, Galloway noted ulterior motives for the publication of Burnham's work. "[I]t seemed to me," he speculates, "that Charlie was testing the waters to see if Americans really did miss the tree and if it might be worthwhile to put some time

[229] Southwick, "Al Southwick."

[230] Southwick, "Al Southwick."

and effort into bringing it back."[231] Burnham needed to see if others, besides him, still had a place for the American chestnut tree in their hearts decades after the onset of the blight. The geneticist's publication indicated that he had an appreciation for the cultural and environmental significance of the American chestnut tree, and he was curious to see if those legacies had survived the blight. He was testing whether the tree was still ingrained in American identity.

Affirming Burnham's suspicion that there were some Americans who still remembered and cared about the American chestnut tree, Galloway reflects on his family's relationship with the tree and the legacy they had passed on to him. Although Galloway was not alive when the American chestnut blight was in full force, he has a comprehensive understanding of the devastation because of his parents' and grandparents' accounts. "I have always been aware of the tragic loss of the American chestnut tree, which had happened within a very few years at the beginning of the 20th century, from stories I had heard from my parents and grandparents who told of what a magnificent tree it was," he states.[232] Galloway is part of the American chestnut legacy because of the oral tradition that his parents and grandparents passed to him. He had inherited an appreciation for the tree and an understanding of the intimate relationship people formerly had with the forest wonder as well as the sense of loss that has haunted the environment since the tree's decimation. He further explains, "Those stories have stuck with me and I never got over the feeling that I had been somehow robbed of this wonderful creation of nature."[233] Galloway feels cheated and denied because he could not partake in the chestnutting activities that his parents and grandparents fondly and longingly recalled. His feeling of missed

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[231] Galloway, "My Chestnut Story," The American Chestnut Foundation, last modified September 2016, https://acf.org/wp-content/uploads/2016/09/My-Chestnut-Story-Paul-Galloway.pdf, 2.

[232] Galloway, "My Chestnut Story," 2.

[233] Galloway, "My Chestnut Story," 2.

opportunity exemplifies that chestnutting was deeply ingrained in American culture in New England. He recalls that grocery stores attempted to replace the American chestnut with Chinese chestnuts, but his mother disapproved greatly. "'These things are nothing like the good old American Chestnuts I knew as a girl growing up on the farm,'" she would insist.[234] To her, American chestnuts were more than a food source: they were a means of preserving childhood memories and an intimate relationship with the environment. Galloway's mother recognized that American chestnuts could not simply be replaced by something seemingly similar because of their legacy and cultural roots. Although Galloway himself could not witness the American chestnut tree in its greatness, he acts as a source of oral history, preserving the stories, experiences, and attitudes of his elders.

Not only does Galloway honor his family's heritage that valued the American chestnut tree, but he also plays a crucial role in trying to bring it back for future generations to enjoy. Grateful for Burnham's efforts to save the American chestnut tree, Galloway sent him a letter of encouragement. He mentioned that there was an "American chestnut tree of some distinction" that had been growing on his property for several years that had not fallen victim to the blight, which instantly caught Burnham's attention.[235] Shortly after mailing the letter, Galloway received a phone call from Burnham, who was both excited by and curious about Galloway's American chestnut tree. Immediately, Burnham wanted to recruit Galloway into his scheme to bring back the American chestnut tree, asking him to "'pollinate it and send [him]some nuts.'"[236] Unexpectedly, Galloway had become an instrument in the geneticist's great scheme. Not only did

[234] Galloway, "My Chestnut Story," 2.

[235] Galloway, "My Chestnut Story," 3.

[236] Galloway, "My Chestnut Story," 3.

Burnham succeed in finding someone who shared his interest in the American chestnut tree, but he also found someone who could help advance his goal. By working together, Galloway and Burnham epitomized the necessary intersection of cultural appreciation with science, affirming the emerging identity of the American chestnut tree as both a memory and a subject of modern science.

Recognizing that his tree could play a crucial role in a considerable effort to reinvigorate the American chestnut tree, Galloway volunteered himself and his tree for a great cause. To pollinate the tree, Galloway and one of his friends assembled a tower that would allow one of them to reach the tree's branches. They would climb several stories to do the deed, but they knew it was essential for Burnham's research.[237] The establishment of the American Chestnut Foundation followed shortly after Burnham and Galloway formed their coalition, bringing Burnham's vision to a larger scale. Within a few years, Burnham, advanced in his years, decided to retire and passed the torch to Fred Hebard, who stayed in contact with Galloway and continued the pollination process. Sadly, Galloway's tree's role in the great comeback story for the American chestnut tree was short-lived. He mourns: "About 1991 our tree started to show signs of the blight. It happened quite rapidly and by 1994 it failed to produce even one leaf and it was done for. Coincidentally, in April of 1995 I got word that Charlie Burnham had passed away at age ninety one."[238] Ninety years after the blight was discovered in New York, trees were still dying from its viciousness. Burnham's death coinciding with the death of Galloway's tree, although seemingly a matter of chance, further emphasized the cultural and intergenerational presence that the American chestnut tree possessed. Whether the tree represented memories of the past or the potential for science to better its future, it imparted a legacy to the next generation.

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[237] Galloway, "My Chestnut Story," 4.

[238] Galloway, "My Chestnut Story," 10.

Even though Galloway's tree succumbed to the blight, his relationship with Burnham and the American Chestnut Foundation had significant implications years later. Although the circumstances were different, Galloway's pollination efforts were like those of the father in "My Father Planted a Chestnut Tree" because they expressed a sense of forethought and environmental responsibility. Fifteen years after the expiration of his tree in 2011, after falling out of touch with those fighting to resurrect the American chestnut tree, Galloway received a letter from Grace Knight, the president of the Vermont/New Hampshire chapter of the American Chestnut Foundation. She said that she had met Fred Hebard, who inquired about a Paul Galloway from New Hampshire. She reported that the "'current crop of B3F3 potentially blight-resistant seed nuts now being distributed to TACF [the American Chestnut Foundation] members has, on average 1/8th of its genes from the New Hampshire tree that he [Hebard] named "Paul Galloway".'"[239] Because of his involvement with Burnham years earlier, Galloway and his tree have left a notable positive influence on efforts to bring back the American chestnut tree. His selflessness and willingness to help with Burnham's cause was literally preserved in the genes of the trees that were potentially blight resistant. Just as the American chestnut tree improved the lives of his ancestors, Galloway worked to improve the fate of the tree. To further carry out Galloway's legacy, Knight had the "'idea to plant some of the seed nuts now being produced in Meadowview [VA] near the location of the original "Paul Galloway" tree.'"[240] Naming the tree after Galloway was reminiscent of the former communion with the environment that people experienced through the American chestnut tree. Just as Galloway could not experience the American chestnut tree the way that his parents and grandparents did, he will not experience the

[239] Galloway, "My Chestnut Story," 12.

[240] Galloway, "My Chestnut Story," 12.

American chestnut tree when it returns to its glory. However, he has played a necessary role in bridging the generational gap with the hope that someday the environment and people will once again be able to enjoy the American chestnut tree.

As the scientific research surrounding the American chestnut tree and the local efforts of the American Chestnut Foundation have expanded, the tree has adopted a new identity as an educational resource for elementary school students. As the American Chestnut Foundation has been increasing the number of research orchards it manages, it has also started partnering with schools to not only educate young people on the genetics behind the project, but to also encourage interactive learning in the natural environment. While children in the past were able to play amongst the nuts and branches of the American chestnut tree when it was in its prime, children today can still interact with the tree, albeit in a much different way. By partnering the efforts of the American Chestnut Foundation with schools, students are learning about the legacy of the American chestnut tree and the genetic and environmental science related to the project, all while developing a more intimate relationship with nature.

Spreading the mission of the American Chestnut Foundation to students has been beneficial for the Foundation, and it has played an important part in the long-term goal of bringing back the American chestnut tree, empowering the youth of today with the knowledge that their actions are going to have long-lasting and positive effects. In 2018, members of the Massachusetts and Rhode Island (MA/RI) chapter of the American Chestnut Foundation met with Lisa Collins, the environmental science teacher from the Norfolk County Agricultural High School. Collins had approached the board members of the MA/RI chapter to propose her idea for establishing a seed orchard on the school grounds. Eagerly, the board members began planning with Collins and her students to turn her vision into a reality, and they decided to meet with the students to begin

educating them on the American chestnut tree. Kathy Desjardin reports, "On the day we visited Lisa's class we were impressed with the questions and comments of students and teachers alike. It was apparent that they're enthusiastic about getting involved with TACF and have the resources to follow through."[241] Just as the American chestnut tree caught the interest of children from the nineteenth and twentieth centuries, the American chestnut tree is intriguing to students in modern times. Although more than a century had passed since the American chestnut tree stood as the majesty of the forests, the childlike fascination and natural attraction to the tree has endured.

Collaborating with educational institutions has multiple layers of benefits. In the case of the Norfolk County Agricultural High School, the students are cultivating American chestnut seeds as well as learning about the history of the blight and the former greatness of the American chestnut tree, the interactions within ecosystems, environmental stewardship, and teamwork. Bringing back the American chestnut tree is now an immersive educational experience that inspires youth. "Partnering with educational facilities enables us to reach a large audience of enthusiastic volunteers who could potentially become the leaders of the next generation of our organization," Desjardin proudly reflects.[242] Just like the stories from the nineteenth and twentieth century, the American Chestnut Foundation is encouraging the youth to think about the future and to leave the environment in a better state than the one they inherited. By engaging with students, the American Chestnut Foundation both preserves and reincarnates the intergenerational legacy of the American chestnut tree, inspiring the people of today to strive for a better future.

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[241] Kathy Desjardin, "MA/RI Chapter Experiencing Growing Partnerships with Educational Institutions," In the News, The American Chestnut Foundation, August 15, 2018, https://acf.org/our-community/news/ma-ri-chapter-experiencing-growing-partnerships-with-educational-institutions/?utm_source=eSprout+August+2018&utm_campaign=August+2018+eSprout&utm_medium=email.

[242] Desjardin, "MA/RI Chapter Experiencing Growing Partnerships with Educational Institutions."

The American Chestnut Foundation has also created a presence in local communities, reconnecting them with their regional past and reinforcing community identity. In addition to having seed orchards, the Foundation has also planted some trees in parks as part of its effort to bring the tree back. The fall of 2018 saw a particularly exciting harvest from an American chestnut tree in Green Hill Park in Worcester, Massachusetts. The chestnut harvest, humble and meager, offered a glance to the past as well as a look to the future. Cyrus Moulton quotes Lois Melican, the president of the MA/RI chapter at the time, "'This is the first time that chestnuts have been produced in Worcester since the blight 100 years ago.'"[243] Melican testified to the cultural and historical legacy of the American chestnut tree, emphasizing that its absence had been noticed and its presence missed. A long time coming, the harvest of nuts resulted from the collaboration between the American Chestnut Foundation and the Worcester Tree Initiative in 2014 "to plant blight-resistant American chestnuts in Green Hill Park."[244] Although it was too soon to enjoy roasted chestnuts as in years past, the nuts were to be used to grow more blight-resistant American chestnut trees, highlighting that each harvest was an investment for the future. They would be stored in a refrigeration unit for the winter, planted in the spring, maintained in a greenhouse for a year, then planted in the park. The process still involves a considerable amount of human involvement, but there was hope that soon there would be enough resistant American chestnut trees to naturally interbreed with each other and produce groves of trees once again. Melican's husband, Denis Melican, found the harvest inspiring and heartwarming. "'The story is about hope,'" he says, "'That you can recover from a devastating blight and have hope...everybody likes

[243] Moulton, "Blight-resistant American Chestnut trees grown in Worcester's Green Hill Park produce 'momentous' mini-harvest," telegram.com, October 13, 2018, https://www.telegram.com/news/20181012/blight-resistant-american-chestnut-trees-grown-in-worcesters-green-hill-park-produce-momentous-mini-harvest.

[244] Moulton, "Blight-resistant American Chestnut trees grown in Worcester's Green Hill Park produce 'momentous' mini-harvest."

that.'"[245] To Melican, the story of the American chestnut tree was a great comeback tale, one that was inspirational and uplifting. Despite falling victim to a terrible blight, the tree was a symbol of resilience and determination that helped people connect to the past and feel a sense of responsibility to the future.

Even with the heartwarming efforts to bring back the American chestnut tree and the new or reborn identities that the tree has adopted, the age-old conflict between science and nature remains, resulting in deeply debated and divisive cultural implications. The New York chapter of the American Chestnut Foundation has been at the forefront of a new method of creating a blight-resistant American chestnut tree. The process took root in 1989, when Herbert Darling discovered a sizable, though infected, American chestnut tree on his property. He noticed that the tree was not producing any seeds because there were not any other American chestnut trees in the area, so he devised a plan to get his tree to produce some offspring. "Darling filled shotgun shells with pollen taken from the male flowers of another chestnut tree he had learned about, growing an hour and a half's drive to the north. He fired the rounds at his tree from a rented helicopter," Gabriel Popkin writes of Darling's dramatic effort to pollinate his tree.[246] His efforts seemed less-loving than those of Galloway. However, his attempt proved unsuccessful, so the following year he utilized eight stories' worth of scaffolding to hand brush the pollen onto the tree's flowers. His more intimate effort yielded positive results, and Darling harvested about one hundred nuts. He contacted Charles Maynard and William Powell, tree geneticists at the State University of New York College of Environmental Science and Forestry (SUNY ESF). Darling was aware of

[245] Moulton, "Blight-resistant American Chestnut trees grown in Worcester's Green Hill Park produce 'momentous' mini-harvest."

[246] Popkin, "Can Genetic Engineering Bring Back the American Chestnut?" The *New York Times* Magazine, April 30, 2020, https://www.nytimes.com/2020/04/30/magazine/american-chestnut.html.

Maynard and Powell's novel research program on the American chestnut tree and the blight.[247] While his own tree was dying, Darling wanted to do what he could to see that the species returned to its previous vigor.

Darling was aware of the promise of genetic engineering, and he wanted to support the genetic research that Maynard and Powell were performing at SUNY ESF. He tried appealing to the newly organized American Chestnut Foundation, but it vehemently opposed genetic engineering and based their program off crossbreeding. Consequently, Darling established his own nonprofit to financially support the geneticists' research. In 1990, the American Chestnut Foundation reconsidered genetic engineering as a possibility and absorbed Darling's nonprofit, recreating it to be the first state chapter of the organization. After much research, Powell discovered that "[i]f the chestnut could produce its own oxalate oxidase, a specialized protein that breaks down oxalic acid, it might be able to defend itself."[248] Multiple plant species possessed such a gene, so Powell settled on a type of wheat to be his source. Over the last several decades, Maynard and Powell have perfected a process that implants the desired gene from the species of wheat into the chestnut tree embryos. Then, the trees are treated so that they grow in the lab setting.[249] Although it offers hope, the genetic engineering approach involves a considerable amount of technical science and human intervention.

After over twenty years of research, in 2013, Maynard and Powell proclaimed their success: they had "created a version of the tree that appeared to defend itself, even when hit with

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[247] Popkin, "Can Genetic Engineering Bring Back the American Chestnut?"

[248] Popkin, "Can Genetic Engineering Bring Back the American Chestnut?"

[249] Popkin, "Can Genetic Engineering Bring Back the American Chestnut?"

a huge dose of blight fungus."[250] Their name for the tree, Darling 58, was inspired by Darling's early contributions to the project. Although good and hopeful news, the tree was a genetically modified organism that would need special permission to be planted in the wild. In 2018, Powell submitted "a nearly 3,000-page dossier to the Animal and Plant Health Inspection Service, the U.S.D.A. branch responsible for approving genetically modified plants. That started the approval process for the agency: to review the application, seek public comment, produce an environmental impact statement, ask for public comment again and issue a decision."[251] The tree would also need approval from the Food and Drug Administration to verify that the transgenic nuts are safe for consumption and from the Environmental Protection Agency to assess the tree's impact on the environment. However, Powell has already conducted research on the environmental responses to the transgenic tree and found no considerable disruptions to the stability of the environment.[252] Despite the good news of producing a blight-resistant tree, the amount of science involved has created skepticism and has run the risk of compromising the dignity of the environment, foreshadowing conflicts in the public's reception of the tree.

Although the transgenic American chestnut tree may scientifically pose no threats, many people are uncomfortable with the idea of genetically modified organisms being released into the wild to mix with non-genetically modified organisms. People became even more suspicious when they learned that Monsanto, the agrochemical company, might come into the picture. Within the American Chestnut Foundation, transgenic planting has been a divisive issue. Popkin explains that recently, "leaders at the American Chestnut Foundation concluded that they couldn't achieve

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[250] Popkin, "Can Genetic Engineering Bring Back the American Chestnut?"

[251] Popkin, "Can Genetic Engineering Bring Back the American Chestnut?"

[252] Popkin, "Can Genetic Engineering Bring Back the American Chestnut?"

their goals through crossbreeding alone and embraced Powell's genetic-engineering program."[253] However, not everyone has taken kindly to the decision. "In March 2019, Lois Breault-Melican, the president of the Massachusetts-Rhode Island chapter of the foundation, resigned, citing arguments made by the Global Justice Ecology Project, an anti-genetic-engineering organization based in Buffalo; her husband, Denis Melican, also left the board," Popkin further states.[254] Some people wanted to hold onto '"the intrinsic value of the forest'" and questioned the morality of genetically interfering with a species.[255] However, scientists generally tend to be in favor of the transgenic tree. Many believe that the benefits undoubtedly outweigh the risks.[256] Although the American chestnut tree had done its battle with science, the conflict has become most apparent with the advent of a transgenic tree, which raises concerns about the inherent dignity of the tree.

The American chestnut tree still holds cultural significance to certain groups of people, and the transgenic American chestnut tree has the potential to help tribal nations reconnect with their former traditions. Powell conversed multiple times with Neil Patterson, who served as the assistant director of SUNY ESF's Center for Native Peoples and the Environment. Patterson was initially concerned about the advent of the transgenic tree because "the blight resisting gene would eventually enter the land and potentially crossbreed with the remnant chestnuts there, altering a forest that was central to Onondaga identity."[257] While consulting within his tribe, Patterson noted

[253] Popkin, "Can Genetic Engineering Bring Back the American Chestnut?"

[254] Popkin, "Can Genetic Engineering Bring Back the American Chestnut?"

[255] Popkin, "Can Genetic Engineering Bring Back the American Chestnut?"

[256] Popkin, "Can Genetic Engineering Bring Back the American Chestnut?"

[257] Popkin, "Can Genetic Engineering Bring Back the American Chestnut?"

that "opinions about genetic engineering varied widely."[258] After years of conversation, Patterson has been allayed by knowing that roughly half of the offspring of the transgenic tree would not carry the wheat gene, meaning that non-genetically modified chestnut trees would still be able to grow. Part of Patterson's remaining skepticism rested in Powell's intentions for resurrecting the American chestnut tree. "Only if the relationship between people and chestnuts could be restored, he [Patterson] said, was it worth bringing back the tree," Popkin explains.[259] Patterson prioritizes the communion that his people had with the American chestnut tree, emphasizing that his traditions might be willing to overlook the transgenic nature of the tree if it means resurrecting the former harmony his tribe experienced with the tree.

The identity of the American chestnut tree has evolved, adopting new traits as a means of community engagement and education as well as retaining its ability to connect generations through common experiences. However, the real unspoken marvel of the American chestnut tree has been its ability to still have a presence in American life and culture in New England and the Mid-Atlantic states despite its dwindling presence. Throughout the past two centuries, the tree has appealed to people's understanding of morality, economics, science, community, spirituality, heritage, and culture. As people have worked tirelessly across generations to bring the tree back to its place of honor, they themselves have come to internalize two of the tree's trademarks: resilience and determination. Not only has the life and death of the American chestnut tree transformed the American landscape, but it has also transformed the people. The tree continues to transform the people as they strive to reconnect with the environment and nurture the seeds of community and harmony that the American chestnut tree has left as its legacy.

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[258] Popkin, "Can Genetic Engineering Bring Back the American Chestnut?"

[259] Popkin, "Can Genetic Engineering Bring Back the American Chestnut?"

BIBLIOGRAPHY

"American Chestnuts." *The Independent...Devoted to the Consideration of Politics, Social and Economic Tendencies, History, Literature, and the Arts*, March 8, 1877.

Ames, Charles G. "The Chestnut Tree." *The Continent; an Illustrated Weekly Magazine*, September 5, 1883.

"Blight Forcing Chestnut Trees out of Existence. Scourge Crept into This Country from China About Five Years Ago." *Wilkes Barre Times Leader*. October 15, 1917, sec. News/Opinion.

"Chestnut Bark Pest Spreads." *The Evening Bulletin*. April 13, 1910.

"Chestnut Tree; Darby; Penn; Jonathan Owen." *The New-London Gazette, And General Advertiser*. December 12, 1832, sec. News/Opinion.

Child, Maria L. "Grandfather's Chestnut-Tree." *Our Young Folks. An Illustrated Magazine for Boys and Girls*, October 1865.

Copp, G.G. "A Disease Which Threatens the American Chestnut Tree." *Scientific American*, December 15, 1906.

C.S.J. "Chestnutting." *Circular*, October 21, 1867.

"Cultivation of the Chestnut Tree." *The New England Farmer, and Horticultural Register*, January 15, 1845.

Davis, Donald E. "Historical Significance of American Chestnut to Appalachian Culture and Ecology." Paper presented at the Conference on the Restoration of American Chestnut to Forest Lands, 2005.

Dayre, Sydney. "A Plea for the Old Tree." *Christian Observer*, May 6, 1903.

Desjardin, Kathy. "MA/RI Chapter Experiencing Growing Partnerships with Educational Institutions." The American Chestnut Foundation, August 15, 2018. https://acf.org/our-community/news/ma-ri-chapter-experiencing-growing-partnerships-with-educational-institutions/?utm_source=eSprout+August+2018&utm_campaign=August+2018+eSprout&utm_medium=email.

"Editorial.: The Chestnut Tree. Its Value for Timber." *Massachusetts Ploughman and New England Journal of Agriculture*, April 7, 1883.

Emerson, Ralph Waldo. "IV Spiritual Laws." The Completed Works of Ralph Waldo Emerson--RWE.org, December 19, 2004. https://www.rwe.org/iv-spiritual-laws/.

Freinkel, Susan. "A New Scourge." In *American Chestnut: The Life, Death, and Rebirth of a Perfect Tree*, 1st ed., 28–47. Berkeley and Los Angeles, CA: University of California Press, 2007.

———. "A Whole World Dying." In *American Chestnut: The Life, Death, and Birth of a Perfect Tree*, 1st ed., 71–88. Berkeley and Los Angeles, CA: University of California Press, 2007.

———. "Let Us Not Talk about Impossibilities." In *American Chestnut: The Life, Death, and Rebirth of a Perfect Tree*, 1st ed., 48–70. Berkeley and Los Angeles, CA: University of California Press, 2007.

———. "Rolling the Dice." In *American Chestnut: The Life, Death, and Rebirth of a Perfect Tree*, 1st ed., 93–107. Berkeley and Los Angeles, CA: University of California Press, 2007.

———. "Where There Are Chestnuts." In *American Chestnut: The Life, Death, and Rebirth of a Perfect Tree*, 1st ed., 11–27. Berkeley and Los Angeles, CA: University of California Press, 2007.

Fuessle, Newton. "Plagues That Imperil Our Trees and Plants: How Uncle Sam Quarantines American Ports Against Infected Nursery Stock, Stamps Out Plant Epidemics, and Keeps Vigilant Scientists on Guard Against the Spread of Infections." *Outlook*, July 4, 1923.

Galloway, Paul R. "My Chestnut Story." The American Chestnut Foundation. Last modified September 2016. https://acf.org/wp-content/uploads/2016/09/My-Chestnut-Story-Paul-Galloway.pdf.

Grant, Julia. "A 'Real Boy' and Not a Sissy: Gender, Childhood, and Masculinity, 1890-1940." *Journal of Social History* 37, no. 4 (Summer 2004): 829–51.

Gribben, Alan. "Tom Sawyer, Tom Canty, and Huckleberry Finn: The Boy Book and Mark Twain." *Mark Twain Journal* 51, no. 1/2 (Spring/Fall 2017): 127–44.

Holland, Patricia G. "Lydia Maria Child (1802-1880)." *Legacy* 5, no. 2 (Fall 1988): 45–53.

"Japanese Chestnuts Affected." *Morning Oregonian*. March 20, 1914, sec. News/Opinion.

Livezey, Abram, M.D. "Mothers' Department.: [Medical Botany--of the Garden, Field and Forest.] No.IX.—Chestnut Tree—Couch-Grass—Colt's Foot." *Peterson's Magazine*, September 1881.

Lunsford, Eddie. “The American Chestnut Blight: An Agent of Biological & Cultural Catastrophe.” *The American Biology Teacher* 61, no. 8 (October 1999): 588–93.

McCullough, Annie Willis. “My Father Planted a Chestnut Tree.” *The Youth’s Companion*, March 4, 1920.

Moulton, Cyrus. “Blight-Resistant American Chestnut Trees Grown in Worcester’s Green Hill Park Produce ‘momentous’ Mini-Harvest.” telegram.com, October 13, 2018.

O’Connell, L. “The Legend of the Chestnut Tree: Cowardice Changed to Heroism by a Night Spent in a Grotto.” *New York Observer and Chronicle*, August 11, 1910.

Popkin, Gabriel. “Can Genetic Engineering Bring Back the American Chestnut?” The New York Times Magazine, April 30, 2020. https://www.nytimes.com/2020/04/30/magazine/american-chestnut.html.

Rice, Marshal S. “The Largest Chestnut Tree.” *Zion’s Herald and Wesleyan Journal*, December 30, 1857.

Schenderlein, Anne C. “Americanization before 1941.” In *Germany on Their Minds: German Jewish Refugees in the United States and Their Relationships with Germany, 1938-1988*, 22–52. Berghahn Books, 2020.

Shinozuka, Jeannie N. “Deadly Perils: Japanese Beetles and the Pestilential Immigrant, 1920S-1930S.” *American Quarterly* 65, no. 4 (December 2013): 831–52.

Smith, Jeffrey A. “Sunday Newspapers and Lived Religion in Late Nineteenth-Century America.” *Journal of Church and State* 48, no. 1 (Winter 2006): 127–52.

Southwick, Albert. “Al Southwick: The Chestnut Tree—a Storied Past, Tragic Decline and Hopes for Its Future.” telegram.com, October 25, 2018. https://www.telegram.com/opinion/20181025/al-southwick-chestnut-tree---storied-past-tragic-decline-and-hopes-for-its-future.

“Sunday in a Chestnut Tree.” *The Youth’s Companion*, November 22, 1866.

“The American Chestnut Tree.” *The Kansas City Star*. September 20, 1896, sec. News/Opinion.

“The Chestnut Tree.” *Dwights American Magazine, and Family Newspaper, for the Diffusion of Useful Knowledge and Moral and Religious Principles*, August 6, 1847.

“The Chestnut Tree.” *Friends’ Intelligencer*, April 13, 1889.

“The Old Chestnut-Tree.” *The Youth’s Companion*, April 21, 1904.

"Toughening the Chestnut." *Springfield Republican*. August 21, 1914.

Thomas, N.J. "The Chestnut Tree." *The New England Farmer; a Monthly Journal*, February 1853.

Wilhelm, Gene J. "Shenandoah Resettlements." *Pioneer America* 14, no. 1 (1982).

Willis, Annie I. "The Chestnut-Tree." *The Youth's Companion*, October 14, 1897.