

# **The Cultural Value of Trees**

Folk Value and Biocultural Conservation

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### 3 White pine

The tree that sparked peace,  
revolution, and insurrection

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#### **Introduction**

Upon arrival in the New World, British colonists beheld towering, 200-foot pine trees piercing the sky. Without these massive trees, a new nation may never have been born. Strong and light weight, white pines became the premier mast-making tree worldwide with Britain, Portugal, and Madagascar competing to procure them. Revenues from white pine masts underwrote the Revolutionary War and the trees helped to build a new nation (Vietz 2018).

White pine adorned the first flag of the revolutionary forces, graced the shilling, built bridges, and furnished tea to keep scurvy at bay (Rutkow 2012). When the British Crown ordered the most valuable pines to be branded for the Royal Navy, fury arose among hard scrabble farmers. White pine riots ensued. Psychologically and economically, white pines fortified the fledgling colonies against the repression of the British, helping to catalyze the American Revolution (Peattie 1950).

Lesser known is that the white pine had already played a leading role in the founding of a prior nation – The Haudenosaunee or Iroquois Confederation. Prior to European contact, the white pine was central to Native American governance, having helped give birth to a sophisticated system of representation with peace at its core (Wallace 1946). The white pine was the tree under which weapons were laid down, in exchange for an accord based on reconciliation and good will. When the Europeans arrived, challenges over land ensued and war commenced again.

Once the colonists vanquished the British, and drove out Indigenous communities, the young colonies were compelled to devise a new system of governance. Ironically, key elements of the progressive governance system of the Iroquois directly helped to lay the foundation of the US Constitution including a balance of power, two branches of government, and designated procedures for passing laws.

Fatefully, 245 years after the founding of the United States, the white pine flag has been resurrected. A potent political banner, it was revived by insurrectionists on January 6th, 2021 as a symbol of overthrowing tyrannical rule. The flag that was once proudly embraced by colonial settlers in defiance of the British King, was waved by self-proclaimed “patriots” who stormed the US

Capitol. In this case, the white pine symbol was used to help catalyze an attempt to overthrow a democratically held election.

This chapter traces the livelihood uses and enduring symbolic value of the white pine from about 1,000 years ago to the present. It begins by recalling Indigenous management, use, and symbolism of the tree, followed by a description of its use and meaning to early colonists and its role in helping to spark the Revolutionary War. Next, it examines recent appropriation of the symbol by contemporary political groups. Subsequently, the present chasm between people and trees is considered, and an example focusing on the white pine is presented, describing an initiative to boost interest in and respect for trees. During the twin crises of biodiversity loss and climate change, deeper understanding of the profound role of trees and forests in everyday life may help ameliorate the widespread disregard displayed toward trees.

## Background

The topic of this book, *Tree Folk Value: Folk Value and Biocultural Conservation*, raises fundamental questions. What relationship do people have with trees today? In an urbanized, technologically driven society, do many people, other than forest-reliant communities, gardeners, farmers, and/or landscapers, see, consider, or interact with trees? Or is such a connection to trees a vestige of the past?

Another issue is the relationship between researchers who study trees, and the communities within which they work. Culture and the human connection to trees are not topics natural scientists are generally encouraged, nor trained, to study. Researchers are taught to measure and analyze the ecosystem services, ecology, or the monetary worth of trees – their timber, exudates, fruits, medicines, game attracting potential, pollinators, markets and, possibly, their recreational or therapeutic values. The customary use of economics or environmental services as a primary methodological lens through which to study trees, however, can blind researchers to other significant factors. The ties that bind people to trees – symbols, songs, stories, recipes, myths, lore, and emotional connections – often remain veiled.

Working as a forest ecologist for two decades with strong-willed urban and suburban youth in forests of New Jersey, USA, and for decades with farmers and hunter-gatherers in the Brazilian Amazon, has led me to understand that what is least frequently examined – cultural and emotional connections – are of primary significance in people's relationships with trees. It is the stories behind the numbers that embed trees in people's lives. And, as the case of the white pine illustrates, it is these stories and experiences that are fading.

For thousands of years, the white pine has been revered by Indigenous tribes in North America as a sacred tree. Native legends, poems, stories, and myths feature the white pine as a central figure (Schroeder 1992). The white pine is also recognized by historians of the American Revolution as having played a pivotal economic and psychological role in the revolutionaries' victory in the war against the British Crown. Presently, most Americans cannot distinguish a pine from a spruce or fir, much less possess knowledge of the position that

this once-grand tree had in launching not one, but two, daring experiments in democracy. Understanding the influence of trees and their symbolic value on our minds, actions, and political and cultural landscapes, is particularly timely as the rupture between nature and people grows and peace dwindles.

### **The cultural and nutritional landscape of Indigenous North America**

When British explorers arrived in North America they encountered not an untrammelled wilderness, but a landscape that had been skillfully managed for centuries by Native Americans (Denevan 1992). White pine trees pierced the canopy, being emergent and the tallest trees in the region. White pine were prevalent in the Northeastern forests of the US, sometimes growing as scattered individuals and in other areas as nearly pure stands. Without disturbance, such trees could live to be up to 500 years old.

At the time of European settlement, white pines occupied a range of soil and moisture conditions and were well adapted to disturbance regimes including fire and blowdowns (Abrams and Nowacki 2008). Their distribution includes what is now southern Newfoundland, through New England, New York, Pennsylvania, the Great Lakes region, and along the Appalachian Mountains to northern Georgia. There is substantial evidence that fire was used systematically by Native Americans to create fields, clear undergrowth, diminish rodents, and to enhance hunting by expanding open fields and forage (Denevan 1992; William 2005).

Intermittent burns encouraged recruitment and long-term success of tree species such as oak, hickory, chestnut, and pine. Together with clearing, girdling, and planting, a patchwork of various aged fields and secondary forests resulted, increasing species diversity and creating dense groves of nut trees and edible berry bushes surrounding villages.

The exceptional richness of flora and fauna in North America contributed a vital nutritional foundation for the health of Native Americans, and later, colonists. Native Americans consumed at least 30 tree species and genera, including oak (*Quercus*), hickory (*Carya*) and chestnut (*Castanea*), and walnut (*Juglans*) and pine (*Pinus*) (Abrams and Nowacki 2008). These supplied crucial fats, carbohydrates, vitamins, and nutrients to peoples reliant on wild resources for their sustenance. Pines were used to make tea from their needles, their bark was eaten during periods of famine, and their resin was used as a food flavoring.

### **The Iroquois peace tree**

Complex systems of forest management existed alongside sophisticated systems of Indigenous governance. Rarely encountered in history books or taught in schools, The Haudenosaunee Confederacy (meaning People of the Long House, or Iroquois in French and Six Nations in English) is one of the oldest living participatory democracies on Earth. Based on documentary sources, oral history, and celestial events, the body of law of the United Nations of the

Iroquois was ratified on August 31, 1142, at a site called Gonandaga by the Seneca, now named Victor, New York (Mann and Fields 1997; Hansen 2018).

This Confederation came about as part of a decades-long process of consensus building among formerly warring tribes. Ongoing fighting had eroded and weakened the tribes' social order. A visionary named, Deganawidah (The Peacemaker) and the Chief of the Onondaga tribe, Hiawatha, foresaw a means to bring peace among the nations. Over a period of 25 years, they journeyed to council meetings in each of the Indigenous nations, Mohawk, Oneida, Onondaga, Cayuga, and Seneca to present the Great Law of Peace. Charismatic and convincing, the pair discussed governance systems at successive council meetings, resolving that individual nations would maintain their own leadership, but common causes would be decided in the Grand Council of Chiefs. Central to the law was the democratic concept of consensus, basing resolutions on peace rather than fighting. A female leader of clan mothers was also part of the discussions, ensuring an equal and strong place for women in decision-making (Reilly 2020).

After 25 years of deliberation among the tribes, the Iroquois Confederacy Constitution was ratified in 1142 by the five nations (Mann and Fields 1997). In 1722, the Tuscarora would also join the Iroquois Confederacy, expanding the alliance to include six nations. On the auspicious day in 1142, a solar eclipse occurred, likely heightening the perception of awe among the tribes in the powers of Deganawidah. Under the agreement, tribes agreed to lay down their weapons of war under the roots of a massive white pine tree. The white pine tree pierced the sky to reach the sun, signifying the law of peace. As Wallace (1946) writes, "The Iroquois fed their minds and guided their actions by means of symbols." The branches denoted the shelter and security of union under the law, and the roots the extension of peace to the four corners of the earth, compelling others to take shelter under the branches and embrace harmony. An eagle alighting atop the tree, signified vigilance, a sentry to sound warning if any evil approached through the roots.

### **The white pine – luring British across the Atlantic**

In contrast to the flourishing, highly diverse forests of the Iroquois Federation, the forests of Britain had been decimated by as early as the mid-1500s. In response to the country's rapidly diminishing timber resources, Parliament passed the "Act of Preservation of Woods" in 1543. By 1590, only one eighth of England's original forest remained. The dearth of timber posed a critical challenge as wood from the Baltic states was becoming increasingly expensive and the Royal Navy required wood for masts and shipbuilding to retain command over its colonies worldwide (Vietz 2018).

As early as 1584, British geographer Richard Hakluyt recognized the astonishing timber resource on the other side of the Atlantic Ocean as a potential asset to the Royal Navy. In 1584, he met with Queen Elizabeth I to appeal for a charter to establish British colonies in the New World but was denied. For the next two decades, he collected travel accounts from explorers and published these in a compendium entitled, *The Principal Navigations*. Having 20 years of

expertise behind him, in 1605, he met with King James I, who agreed to issue the Charter of Virginia (Rutkow 2012). Hakluyt is a model of perseverance – it took 21 years until his vision became realized.

As opposed to the denuded landscape of Britain, 95% of New England’s land area was forested when the colonists arrived, and the massive sizes of the trees were inconceivable. Legend from the time recounts that a squirrel could travel all the way from the East Coast to the Mississippi River without touching ground! Having grown with minimal disturbance for centuries, New World trees offered old, close growth rings which contributed to strength, creating a fine grade of wood, free of defect and knot, and rot resistant (Rutkow 2012).

In contrast to dense, heavy tropical timbers, white pines are tall, light, flexible, and strong – perfect for masts. White pine swiftly became the most highly valued tree in the world for mast building and the most lucrative manufactured export from the colonies. In 1623, the first sawmill was constructed in York, Maine. As early as 1629, one merchant recalled, “There is no better ship timber to be found in the world” (Vietze 2018).

Felling a massive white pine was no small feat. Many trees needed to be cleared in the direction of the felling to create a landing area and great care was needed to ensure that the highly valuable timber did not crack. Bedding to soften the blow was carefully placed along the tree’s fall line and snow was helpful in buffering a fall (Manning 1979) (Figure 3.1).



*Figure 3.1* New England Masts & the King’s Broad Arrow by Samuel F. Manning.

Once the hard work of felling the gigantic trees was complete, an enormous amount of labor and skill was required to haul the timber to a river to reach a sawmill. Incentivized by the superior profits, colonists toiled in the forests, undertaking the colossal task of felling and transporting white pines to be shipped as far away as Madagascar, Spain, Britain, Portugal, and the West Indies. The mighty ships fashioned with these masts became known as, “wooden cathedrals of the oceans.”

### **White pine – sparking a revolution and building a nation**

Sales of timber for the shipping industry transformed the rugged colonies from what they experienced as a harsh land into a wealthy trading post (Vietze 2018). Over the next one hundred years, colonists controlled one of the strongest shipping trades outside of the Dutch empire, with some colonial timber barons becoming as rich as Englishmen. White pine wood served as currency, the tree was featured on colonial shillings, and the first flag of revolutionary forces showcased a white pine, with the words “An Appeal to Heaven” above it. Thus began the colonists’ separation from Britain.

In 1691, King William III, recognizing that the colonists were usurping not only timber, but also power, money, and masts from the Crown, issued a decree stating, “Notice is given that all White Pine Logs cut and hauled out of the King’s Woods . . . will be seized to his Majesty’s Use and Trespassers dealt with according to law” (Vietze 2018: 69). The King sent surveyors to brand all white pines greater than 24 inches in diameter with the Kings Broad Arrow (an upside-down arrow). In 1720, a mast tree of 36 inches could fetch a huge sum. For colonists, who had labored tirelessly to carve out a living in a daunting new landscape, the Broad Arrow represented the repressive Crown infiltrating their lives and forests.

Through various means, colonists throughout New England rebelled against the King’s decree. The woods of New Hampshire and Maine were famous for Pine Tree Riots and Woodland Rebellions. Many settlers clandestinely continued to fell white pines, some dressing as Indians and working during the night. When encountering the King’s men overseeing the white pines, some colonists declared, “Swamp Law,” violently beating the King’s men, and running them out of their forests and towns. Anger over royal privilege appropriating what they perceived as their own forests infuriated settlers throughout New England, producing numerous skirmishes and riots. In the region that is now Maine and New Hampshire, clashes between the King’s men and colonists led to mast tree rebellions in 1734 and 1772. History highlights the Stamp Act of 1765 and the Tea Tax of 1773 as sparking the American Revolution, but the white pine riots helped to catalyze the revolution and then, literally, the building of the new nation (Vietze 2018).

After winning the revolution, colonists again turned to the white pine. The tree was felled for the construction of bridges, barns, railroads, cabins, hobby horses, ship figureheads, shingles, roofs, and bobsleds. North America was literally and figuratively built out of white pine (Rutkow 2012). By the late 1800s,



when settlers turned to see what they had wrought, extensive logging to supply demand had wiped out the grand conifers. The magnificent white pines, once perceived as an endless supply of timber, had been extirpated.

### **The white pine plants seeds of the US Constitution**

The legacy of the white pine, however, lived on. The Iroquois Confederacy, founded alongside the White Pine, had brought centuries of peace among formerly warring tribes. As the first thirteen colonies struggled to become the United States of America, the governance system that the white pine had given birth to, offered an unexpected role model. In Europe at the time, there were no participatory democracies from which the delegates could derive ideas and inspiration. In preparation for the Constitutional Convention held in Philadelphia in 1781, John Adams wrote a three-volume handbook examining different types of governing bodies. While Adams included thinkers like John Locke and Montesquieu, he also described elements of enduring governance systems from the Iroquois Confederacy, which many delegates knew through personal experience.

The Federation's constitution was documented and kept alive through designs on a wampum belt. Front and center stood a profile of a white pine, with designs symbolizing concepts of governance familiar to United States citizens today. For example: a balance of power is held between the Iroquois Confederacy and individual tribes; two branches of legislature with procedures for passing laws is designated; members are restricted from holding more than one office; processes to remove leaders within the Confederacy are outlined; and who has the power to declare war is delineated.

In 1988, recognizing that the founding fathers of the United States built directly upon Indigenous land and governing principals, congress passed a resolution, formally acknowledging the influence of the Iroquois Confederacy on the US Constitution. In addition to this recognition, the resolution reaffirmed "the continuing government-to-government relationship between Indian tribes and the United States established in the Constitution" (U.S. Congress 1988).

### **White pine flag stokes insurrection**

Two hundred fifty-five years after the founding of the United States, the symbol of the white pine that stood for a newly founded representative republic is now being waved at insurrectionist rallies. In 1690, John Locke wrote that when an oppressed people "have no appeal on earth, then they have a liberty to appeal to Heaven" (Vietze 2018). This phrase was initially interpreted by colonists as against the Divine Right of the Rule of Kings and was first flown by a six-cruiser squadron under George Washington's command in October 1775. During the last two decades, the White Pine Flag of the Revolution bearing the words, "An Appeal to Heaven" has been appropriated by a range of seemingly incongruent groups. On January 6, 2021, a riotous mob which included some



individuals bearing this flag, stormed the US Capitol in an attempt to overturn the results of a democratically held election.

In 1775, the bearers of the flag recognized the species of tree as a white pine and understood how deeply the tree was intertwined with the arduous lives of colonial families. They razed the tree, hauled it, transported it over woods and waters, and sold it to survive. The King's decree to seize mature white pines epitomized the tyranny of royal privilege and oppression and mobilized colonists to break free of the Crown. Today, the symbol of the tree and the inscription, "An Appeal to Heaven," also resonates to mobilize political forces. But in this case, it is used to attempt to overthrow a system of representative governance that the revolutionary forces fought for over 250 years ago. Today, few Americans know what species of tree it is or the role it played in Indigenous or colonial life. Of 100 people interviewed as part of this research in Maine, none recognized the "Appeal to Heaven" flag or had a notion of what it means. In a 2020 *New York Times* article about the Maine State flag, which also bears the profile of a white pine, the species of tree was never mentioned, nor the history of the original white pine flag on which it is based (Boylan 2020).

How did the White Pine Flag of the colonists come to be interpreted as it is today? In the early 21st century, the flag became adopted by religious conservatives in the Republican Party linked with faith-based Christian movements. During the era of Billy Graham in evangelical circles, politics began to be openly infused into religion. Then in 2008, Republican presidential nominee John McCain chose a right-wing populist with evangelical leanings as his running mate. Since then, the line has blurred between politics and religion and faith-fueled politics has been on the rise. One initiative called "An Appeal to Heaven," using the white pine revolutionary flag as its emblem, was founded by a South Carolina preacher who has 200,000 followers on YouTube. The movement has tenants of Christian nationalism, with overtones of white supremacy. Followers include self-described anti-government militias, white nationalist agitators, and Bible toting evangelicals. At rallies, the Proud Boys pray to God while flanked by evangelical Christians holding the ichthys (fish) signs, a popular symbol used by evangelicals to evoke Jesus Christ, God's Son and Savior (Winston 2021).

The white pine flag has been flown at the conservative Political Action Conference in 2017, at gun rights rallies in 2020, neo-fascist events in Ohio in 2021, at the Call to Arms rally in South Carolina, at anti-lockdown events during the COVID-19 pandemic, and the Save America Rally on January 6, 2021. It has also been intentionally positioned behind republican senators and a former US president at conservative rallies. Widespread adoption of the flag by disparate groups bearing other flags including Norse, neo-confederate, and Christian banners, indicate that movements which may formerly have had little in common are ideologically coalescing through the use of adopted symbols (Jhaver 2021). Present-day flag bearers wave it, blithely appropriating the symbol with no knowledge of the original Indigenous meaning of the white pine as signifying peace (Figure 3.2).



*Figure 3.2* White pine flag flying alongside the American Flag in front of a church in Southern New Jersey, USA.

Scholars studying the movement warn that the deep roots and widespread adoption of Christian nationalism throughout the US “is a threat to a pluralistic democratic society. . . [and] people go under the guise of Christian symbols and symbolism enact violence against their own country” (Whitehead 2021). Dan Webster, a retired Episcopal pastor, remarked, “I [am] ashamed of Christian leaders these last 4 years whose silence has been compliance.” Another commentator, fond of the white pine flag, stated, “Dammit, why is that pine tree flag used by Fascists? That’s too similar to the Maine state flag for my liking (and I liked that flag until now)” (Winston 2021).

### **Disconnecting from trees**

In contrast to the colonial era when the lives of families were directly dependent upon forests, and the white pine was widely recognized, people’s interaction with trees today is miniscule. In fact, surveys indicate that North Americans spend approximately 90% of their lives in buildings (Klepeis et al. 2001). Urbanization, technology, and an increasingly indoor culture, devoid of contact with nature, contributes to a vast rift between people and trees. Demographics indicate that this rupture is not mending but intensifying. The radical shift to

becoming an indoor species raises fundamental questions posed at the beginning of this chapter: in an urbanized, technologically driven society, what impact will a lack of experience with trees have on culture and our relationship with and actions toward nature?

These questions are particularly important to address as the Earth faces the twin dilemmas of a warming planet and species extinction. These crises cannot be met by policies alone but must also be met by the daily actions of billions of individuals, locally. Research demonstrates that inculcating a life-long connection to nature occurs prior to 12 years of age. How will the next generation attain a sufficient affinity with trees and nature to take the actions needed to mitigate the irreversible impacts of climate change and the staggering loss of biodiversity and forests?

### **Reconnecting to trees: stories, lore, and action in woods**

In many US schools today, it is against the rules to climb a tree or to throw a snowball. No wonder so many kids are depressed. Considering the cliff-hanging environmental cataclysm society is surging toward, where and how children spend their time, and what they learn, needs to be fundamentally reconsidered. Since children pass the bulk of their young lives in school, education may require a vast overhaul where leashes are removed, and children are encouraged to explore beyond screens and to spend time in the natural world.

Improved understanding of natural and cultural history can help to build resilience and adaptive capacity crucial to meet upcoming social and environmental upheavals. Knowledge of wild trees, foods, and medicines helps students to feel a link to the land and to respect those who came before us. The lesson of the Iroquois Nation, of forsaking their weapons for peace, and of the colonists, of uniting around a tree which stood for independence and democratic principles, can help to inspire a new generation. Time among trees can also help youth to contemplate the portrayal of success and prosperity many have been raised with, which may be in opposition to a habitable future.

Research on two ends of the spectrum – with Amazonian hunters who chase down prey along rivers – and with American youth who purchase fast foods along highways – has highlighted the fact that trees sustain and heal a wide assortment of individuals on manifold levels. In the Amazon, local recognition of the immense nutritional and cultural value of fruit and game attracting trees leads to protection of fruit trees and forests, contributing to improved livelihoods (Shanley and Gaia 2002). In urban and suburban New Jersey, immersion of youth in woods for tree climbing, trail blazing, invasive species removal, woodland lore, wild edible gathering, and maple sugaring, serves as an equalizer. Over time, seasons spent in woodlands can transform kids from being vulnerable, unruly, or forlorn, to becoming respectful, grounded youth who appreciate what trees and nature offer.

To bridge the gap between people and trees and to restore a connection to nature that is under threat, experience across ecological and social spectrums

has highlighted the effectiveness of a pragmatic, place-based approach (Shanley and Medina 2006). Experience with trees you can eat, drink, climb, those which heal, stink, sting, and offer toys, masks, tea, fruit, resins, seeds, and fishing poles – is relevant to everyone’s life. Personal connections to trees happen when we touch, taste, smell, see, plant, harvest, and listen to them. For centuries, all cultures have inculcated vibrant traditions, seasonal lore, and legends, and offered recipes and rituals surrounding trees (Schroeder 1992). In post-modern societies, many such intergenerational rituals have receded. Resurrecting the care, respect, knowledge, and skills which early inhabitants displayed toward trees, can help heal the earth and ourselves.

### **The white pine riots game: reenactment awakens students to history and ecology**

The fascinating story of the white pine riots offers a striking opportunity to awaken students to history, ecology, governance, and Indigenous lifeways. To this end, we have developed the White Pine Riots Game based on a fictionalized account of a family making a living off of felling white pines for ship building. As part of this game, students form teams and learn to identify what they would need to construct a ship – white pine for masts; white and red oak for hulls; black locust for nails; and ash or hickory for tool handles. In addition, they need to gather provisions: hickory, walnuts, acorns, greens, forest medicines, and fruits. If students do not pay close attention during the introduction or story, they may not learn how to distinguish one species from another and their team may “expire” during the field-based simulation.

To successfully survive, students need to accurately identify and secure as many of the provisions and ship-building materials as possible. In addition, artifacts such as the white pine flag, pine resin, bones from game animals, and quotes in old bottles from the historic period are hidden in the forest. The finale of the game occurs when “Swamp Law” is called and the colonists take over and drive the King’s men out of their forests, claiming the white pines as their own. Jubilee ensues. Each group then shares their findings, discerns which of the gathered species are accurate or not, and discusses the strategies they used and what each artifact signifies. Today, the appropriation of the White Pine Flag by insurrectionists would be discussed, to decipher how symbols of nature can become politically charged, and to help students interpret the evolution of the meaning of the flag over time. In closing, white pine needle tea is served.

What can tree stories, outdoor tree games, and simulations accomplish? First, children have the experience of exploring freely on their own. Using all their senses, they learn to distinguish the difference among pine, spruce, oak, maple, hickory, and locust trees. Before participating, most have not looked closely at the leaves or needles of a tree to distinguish one species from the next, and few have ingested a tree’s tea, tapped it for sap, or created a tool from its branches. In the case of the white pine, they also learn the importance of natural history to the founding of a nation. Furthermore, they are introduced to “reading the

landscape” and deciphering the meaning of trees, their habitats, architecture, foodstuffs, cultural and Indigenous values, and uses. Mostly they have fun with each other among trees and go away with new eyes. As one student penned in a beautifully illustrated thank you note after participating in the white pine riots game, “I like this different way of learning.”

Tree stories, culture, and nature are ties which bind. Most tree, plant, and wildlife species offer significant insights into history, ecology, and culture. In present day society, urbanized populations tend to see only a green blur. Revival of historic and present-day cultural traditions linked to trees is an effective, celebratory way to tap into themes which resonate with all – food, beverages, crafts, medicine, art, dance, song, poetry, theater, and in the case of the white pine, war and peace. Tapping into historical and Indigenous uses, lore, and legend can strengthen the connection between a range of populations with trees – from hunter-gatherers living off of forest goods, to urban citizens and withered, technology-saturated youth.

### **Conclusion – the legacy of the white pine**

From close to 1,000 years ago to the present, the white pine has deeply influenced two daring experiments in democracy and has been central to the building of two nations: the Iroquois Nation and the United States of America. The white pine was the symbol which united warring Native American nations and brought them to a peaceful accord, lasting centuries. Their inspired, sophisticated system of governance subsequently gave rise to key principles embedded in the US Constitution.

Notably, Indigenous nations also held two central principles at the core of their everyday actions which were not transferred to the fledgling democracy – reverence for nature and respect for women. The tree that stood for peace and a lasting accord between tribes was decimated by colonists to support the war effort during the American Revolution and then to build the new nation. Little regard was paid to Native Americans or their respect for and reciprocity with nature or women. In the Iroquois governance system, women are central to decision-making, whereas in the United States, they have been actively marginalized, gaining voting rights only in 1920, close to a century and a half after the Constitution was written.

In the United States, the lack of respect for nature endures. Today, white pine trees are most frequently encountered in monoculture plantations, a faint echo of what they once were. In remote areas, a token giant pine tree may remain, a rare vestige of the ancient grandeur of this venerable species. One white pine found in Maine is listed in the National Register of Big Trees. Its height of 147 feet is equivalent to that of a 15-story high building, and its girth of five and a half feet across matches the height of a fully grown human.

Although the trees of today are a shadow of their bygone past, the white pine continues to prevail as a potent symbol of liberty and freedom from tyranny. Recently, however, it has also been appropriated by right-wing groups

challenging democratic elections held in the US. Improved understanding of natural and cultural history can help illuminate what the white pine symbol originally meant for the Iroquois Nation and subsequently what it signified for the revolutionary forces. Misunderstanding and lack of ability to “read” the natural landscape can exacerbate and blur interpretation, particularly regarding reading of the political landscape.

Over the course of the last 250 years, the continued razing of forests and the lack of recognition of the overall value of trees to the health of a nation and its people has had local, national, and global consequences. Extreme floods, fires, drought, and weather events are now commonplace. An estimated 1 million species are now at risk of extinction (IPBES 2019). As the rupture between people and nature has expanded, what has eroded is not only vital knowledge about trees, but the traditions surrounding them – their ceremonies, legends, lore, festivals, and stories. Such traditions enhance understanding and empathy for all living things – attributes which are integral to wise stewardship of trees, and gravely needed at present to support the Earth’s faltering life support system.

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