Horticulture and the Development of American Identity

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Culture was not the same in nineteenth-century America as it is today. This statement is so obvious as to be banal, whether the subject is painting, clothing, sport, or slang. One difference, however, stands as prominent yet unexplored: the word *culture* itself. In the *Century Dictionary and Cyclopaedia*, a massive scholarly compendium of the 1880s, the primary meanings of culture involved “tillage,” controlled breeding, and techniques used in the new science of bacteriology. Only with apologies did the editors extend their definitions of the word to describe, on the one hand, the individual and collective improvement of the mind, and, on the other, the ethnographic whole.¹

This essay sketches aspects of a world where culture was a verb that referred primarily to activities that are now considered parts of biotechnology. Well into the nineteenth century, Americans could speak unselfconsciously about strawberry culture, pear culture, and arboriculture. More tellingly, high culture meant, not sweetness and light, but manure, hand weeding, and controlled pollination. The primary sites of culture were rural pastures and suburban gardens, not opera houses or Polynesian villages.

This is not to say that the meaning of culture then was either completely different from now, or that it was more precise. Horticulturists in particular were aware that they stood hip deep in a linguistic compost redolent with metaphors that sprouted like mushrooms and with meanings that hybridized uncontrollably. Even if they did not read Virgil or Alexander Pope, they knew that gardening was as much about culturing themselves as their shrubs, and

¹ *Elms at Yale College,* ca. 1840, engraving by William Henry Bartlett (1809-1854), from Nathaniel Parker Willis’ *American Scenery, or, Land, Lake, and River Illustrations of Transatlantic Nature*, 1857.
that a man's pears, pines, and peonies were indices of his taste. I take advantage of these many connotations of culture but hold to the idea that its primary meaning in nineteenth-century America was the use of intelligence to improve living things.

Some elements of culture were universal, while others were geographically and historically specific. One way to understand the particular is to focus on certain exemplary plants. This essay focuses on two characteristic but contrasting New England types—American elms (found objects that were used as street ornaments) and the Concord grape (a constructed variety with horticultural uses). Comparing the histories of these two Yankee plants gives
fresh shape to an old and brambly theme—the role of New England culture in forming American national identity.

Political independence separated the citizens of the new United States of America from their European roots. They were no longer ordinary members of transatlantic British imperial networks, and their ad hoc alliance with the French grew tortured after 1789. The possibility of a national future of drift and degeneration loomed in Americans' increasing tendency to disperse across the countryside to isolated farmsteads and barren frontier settlements; in the new nation's vast swamps and increasingly virulent fevers (yellow fever struck New York and Philadelphia heavily in the 1790s); in many Americans' unrefined diets of corn and potatoes; and in the surplus of cheap and crude whiskey, punch, and cider, and shortage of good wine to be drunk in moderation.

Within this context, American leaders sought to reaffirm that the development of the United States was linked to both European traditions and to the progress of civilization. In New York, Washington, and elsewhere, they designed public buildings in classical styles to proclaim that Americans had taste. Gentlemen such as Thomas Jefferson in Virginia, William Hamilton in Pennsylvania, and Christopher Gore in Massachusetts built villas that advertised classical values. Landscaping and planting were integral to these displays: Hamilton initiated a broad movement when he planted the drive leading to his Philadelphia estate, The Woodlands, with Lombardy poplars he imported from Europe. The pioneering Prince family nursery on Long Island soon marketed these columnar exotics widely; by the 1810s symmetrical rows of poplars marked dozens of cities, displaying, more visibly than any pillared stone building, the affiliation between the United States and both the Roman and Florentine republics.

Fruits were surprisingly significant elements within this complex of anxieties and desires.
North American “fruits of nature”—huckleberries, cranberries, crabapples, and strawberries—were either small, puckery, or only fleetingly productive; they provided little stimulus to sophisticated tastes. The introduction of Old World “fruits of culture” had been an integral part of early colonization. Apples were particularly successful immigrants, but the vast majority of trees were undistinguished cider-producing varieties. In the late 1700s British, French, and Dutch fruit growers were making major improvements in pears, peaches, plums, grapes, and strawberries through a combination of selection, hybridization, and grafting. The few Americans who traveled to Europe could experience these products of modern high culture, but such people were too preoccupied to raise American horticulture to the European level. In the 1820s, gentlemen and nurserymen in New York, Pennsylvania, and Massachusetts organized to collect and distribute the fruits of European culture as well as to identify and improve American plants. They imported scions, selected vigorous varieties, compared fruits, and encouraged emulation.

The American elm (Ulmus americana) became iconic within this cultural landscape. In the early nineteenth century this previously unremarked swamp dweller became a special tree in New England, transforming village and city streets into cool gothic archways. Because the elm could survive in places as diverse as Maine, Texas, Virginia, and Oregon, its appearance, identified with the New England village, could be replicated throughout the nation. Elm culture thus became part of the construction, both real and ideal, of a common American experience.²

Puritans imported the English elm (Ulmus procera, a continental species probably brought to Britain by the Celts or Romans) to Massachusetts as part of their colonization toolkit. These familiar trees shaded yards and produced a split-resistant timber that was used for specialized purposes such as wagon hubs. Scattered specimens of the related North American species grew in wet areas. Because these trees seemed inferior to English elms in growing less straight, because they did not occur in large stands accessible to cutters, and because isolated specimens were innocuous—casting only light shadows that did not hamper surrounding crops—they were almost the only trees not systematically lumbered in the New England lowlands in the 1600s. By default elms became a prominent and therefore characteristic element of rural nature in the Connecticut River Valley and in other settled parts of New England.

In towns and villages, particularly as surrounding forests disappeared in the 1700s, individual trees became community pets. Certain magnificent specimens of great size and presumably great age (such as the Great Elm on Boston Common or the elms named for Pitts-
An allée of elms in Sandwich, Massachusetts, photographed by E. H. Wilson in September 1929.
field, Sheffield, or Weathersfield) were revered as living relics of presettlement times. During the Revolution, particular trees also became semi-pagan symbols of liberty (and were sometimes cut down by royal troops for that reason). Finally, trees could become markers for remembered or imagined historic events: Cambridge residents revered the elm under which George Washington supposedly accepted his commission as head of the revolutionary army, and other towns preserved elms associated with Washington, Franklin, and Lafayette. (Farther west, in my hometown of Cincinnati, we had to be satisfied with the General "Mad Anthony" Wayne Elm.) Not all these special trees were elms: Marylanders celebrated the large and old Wye Oak, and Hartford claimed the Charter Oak, associated from the late 1600s with the preservation of Connecticut autonomy. Local people often went to great lengths to preserve these specimens. With the short-lived, top-heavy elm, these struggles were predictably tragic. Illustrations of Cambridge Common in 1839, 1861, and 1908 show the Washington Elm increasingly contorted and cut back, hemmed in by streets; it toppled in 1923 while undergoing surgery following a rainstorm.

Elms were easy to move in quantity from swamps to roadsides; sometimes—as in Litchfield, where thirteen sycamores planted to celebrate the new republic soon died—they were a second choice. The realization that double rows of American elms produced a particularly impressive effect emerged gradually. Only after 1820 did travel writers (including the generally disdainful Charles Dickens) begin to emphasize that elms in quantity transformed some otherwise ordinary New England towns into distinctively beautiful blends of country and city.

The apotheosis of the American elm occurred in the 1840s. Emersonian Transcendentalism elevated communion with trees to a religious experience. Nationalistic garden writers argued that planting and experiencing common American, rather than rare Eurasian, trees and shrubs would advance American identity and promote democratic values. On a more practical level, the Lombardy poplars planted in the Federalist period were becoming tatty from age and diseases that killed the tops. For the influential landscape theorist Andrew Jackson Downing, the vase-shaped American elm, with its pendulous branches and dappled shade, expressed the truth that the Gothic was the aesthetic appropriate for modern America. And as Yankees began to worry about their region's decline relative to the Midwest, rows of elms expressed their towns' supposed organic traditions, distinctive cultural maturity, and appeal as summer residences for prosperous Manhattanites and Southerners.

Elms thus shifted from being trees that grew in New England to the trees that, to a substantial degree, defined New England. After mid-century, village improvement societies, aided by nurseries, initiated elm-planting programs that soon made the region's villages look as if they had been cloned. Elm monocultures spread, along with copies of Downing's books, along streets in the Midwest and beyond. In his journals, Henry Thoreau expressed the implications of these movements. On the one hand, he imagined that New England was its elms: his idea of a village included "more of the elm than of the human being." On the other, he understood that New England, like the elm, could reproduce itself and migrate: that "Free Soil" principles, like elms, would spread across the continent, outcompeting the decaying slave South.

The importance of questions regarding different plants' American identities, and the difficulty in providing answers, become evident if we turn from shade trees to the domesticated species that provided people with food and fiber. Cultivars (named varieties of cultured plants) were products of particular places, histories, and values. Choice of a cultivar could be a major practical issue: the economic survival of a plum grower, for example, could depend on the hardiness, productivity, and taste of the stick-like slips planted years before.

No plants that had evolved in temperate North America were cultured prior to 1800. Angloamerican colonists grew either cultivars from such New World tropical regions as Mexico (corn) and Brazil (tobacco), or some fraction of the grains, beans, and fruit trees that Old World farmers had developed over previous millenia. The degree to which Eurasian
and African cultivars could be "naturalized," or grown successfully, in North America varied greatly. The apple, originally from central Asia, was a paradigm of effortless naturalization. Recent books by Michael Pollan and Sue Hubbell both describe how this highly variable species evolved rapidly into forms that flourished in New England and beyond. Pears, although closely related to apples, seldom grew well in the Northeast. Maintaining wheat culture was a continual struggle. The most fraught situation symbolically—one element in my ongoing research on the history of American horticulture—involved grapes.

The European wine grape, *Vitis vinifera*, was by far the most "cultured" plant in the world in the 1800s. Domesticated in the Near East four to six thousand years ago, it had been altered through selection by generations of vinegrowers into a plant that could only live and bear fruit with constant and careful attention. Its qualities were the result of tastes that changed in unrecorded ways from the times of Hesiod and Pliny up to the emergence of the great Bordeaux chateaus in the 1700s.

The English, while avid consumers of wine, were unable to participate in viticulture for lack of summer heat. As a consequence, the early promoters of Virginia and New England, who (like the Vinlanders six hundred years earlier) learned that grapevines grew rampant along North American shorelines and riverbanks, anticipated that *Vitus vinifera* could be made to prosper there and that wine would soon be flowing from America to England. Colonists, however, failed repeatedly in their efforts to establish viticulture. Thomas Pinney explains that imported *vinifera* vines would readily take root and grow vigorously but would fruit for only a few years before fading away. The reason for these failures, not understood until the late nineteenth century, was that American grape species supported bacteria (black rot), fungi (downy and powdery mildews), and root aphids (*Phylloxera*) that reliably destroyed the evolutionarily defenseless *vinifera* vines. Prior to the 1870s, local and English commentators debated whether the difficulty in growing *vinifera* lay in the particular soils chosen, problematic local climates, the lack of vineyard experience of Anglo-American growers, or the lack of American experience with French or Italian viticulturists imported for the purpose. The more ominous argument, in retrospect understandable and close to the truth, was that eastern North America was somehow inherently inhospitable to the high culture of winemaking.

In the early 1800s, scattered American wine enthusiasts gave up on *vinifera* and sought instead to culture the vines already growing wild in North America. The common northeastern species, *Vitis labrusca*, produced good yields of large fruits but it was singularly unpromising from the standpoint of taste. Its common name, the "fox grape," referred to a distinctive odor that was linked with varying degrees of specificity to anal secretions. Culturing *vinifera* had taken millenia; the idea that a grape as rank as *labrusca* could in a few years be sufficiently tamed to serve to ladies was only imaginable among men who believed in the heroic potential of horticulture.

Such men existed in Massachusetts in the 1840s. With symbolism so weighty it could split an elm, the birthplace of the great American grape was Concord—the reputed birthplace also of American freedom, American philosophy, American environmentalism, and, in some interpretations, American fiction.

Ephraim Wales Bull (1806–1895), the developer of the Concord grape, was a fine craftsman from Boston with liberal religious leanings, good social connections, and a longstanding interest in gardening. At the age of thirty he moved to a hobby farm just east of Concord where his acquaintances included Thoreau, the vegetarian Transcendentalist Bronson Alcott (and his teenaged daughter Louisa Mae), agricultural editor Simon Brown, and Nathaniel Hawthorne. Bull was an avid reader of nursery catalogs and annually purchased a diverse lot of material from the Prince nurseries, the leading supplier of new and exotic plants.

The Concord, however, began mythically, with a seed dropped in a corner of Bull's garden around 1840 by a passing bird or local boys. Following theories articulated most prominently by Belgian medical scientist and pear culturist Jean Baptist Van Mons, Bull believed that
culture involved a combination of gentleness, selectivity, and patience. He moved his volunteer seedling to a comfortable bed in the center of his garden, tended it carefully, and planted the seeds it produced. The crucial step was to select the offspring most susceptible to culture. The quickest-sprouting seedlings were rejected as close in type to their wild parent; those that were slower to germinate, or more “feeble,” were considered more likely to put their energy into the production of fine fruit.

One of these plants rewarded Bull’s efforts by producing, at the end of the 1840s, grapes that were early, large, and, Bull claimed, tasty. He shared the news of his new fruit with neighbors such as Thoreau and, naming the vine for his adopted village, arranged to market cuttings through Charles Hovey, the leading plant promoter in Massachusetts. The variety gained national prominence thanks to favorable press coverage by Alcott’s former commune companion Horace Greeley, who was editor of the New York Tribune and a weekend farmer in Chappaqua, New York.

The identities of Bull, his grape, his village, and his nation fused rapidly in the mid 1850s. Bull advertised the Concord as a “native grape” with a decidedly Yankee character—it was early, versatile, did not wilt, and had “good shoulders” (that is, the bunches were neither small nor spindly). This hardy “American” fruit was contrasted to its “too tender Syrian brothers” (a coded reference to Semitic/Jewish degeneracy). Bull’s reputation as a hero of American horticulture enabled him to gain election to the Massachusetts legislature under the auspices of the nativist American Party (the so-called Know-Nothings) and then appointment to the State Board of Agriculture. There he became an archetypical village Yankee, noted for blunt attacks on sharp businessmen who controlled the distribution of new varieties and who unfairly captured profits that should go to farmers and local innovators.

After the Civil War, increasingly sophisticated tastemakers like Horace Greeley rejected the still-foxy and highly tannic Concord as crude. But the variety continued to solidify its position as the standard American grape. Provincial backyard growers appreciated its reliability and good looks, and rapidly expanding commercial producers in upstate
Concord grapes as illustrated in Les Vignes Americaines, 1876.

New York saw the value of marketing a single named product that could be identified by urban consumers.

In addition, the Concord became the basis for a technologically grounded, clear-headed grape culture different from any that had existed since the pre-Sumerian development of controlled fermentation. In 1869 the New Jersey Methodist dentist, Thomas Welch, used the new technology of pasteurization to make a non-alcoholic church wine. When his son Charles decided to target a larger market, he turned to readily available Concords. Making this leathery liquid palatable required the addition of large quantities of sugar; the consequence was that a beverage sold originally in drug stores as "Dr. Welch's" tonic for the elderly succeeded because it appealed to the naïve tastes of children. While Welch's was not, as one ad claimed, "the national drink," it was nationally specific. Imagining an Anglo-American family around 1900, sitting on a porch and sipping Welch's grape juice while looking out onto an elm-shaded street in a suburban town—whether in Connecticut, Illinois, or Oregon—is a remarkably easy exercise.6

What happened to this idyllic picture? Elm culture declined dramatically in the decades after 1930. The most visible reason was the introduction of an Asian fungus misleadingly named Dutch elm disease. But in contrast to the almost complete disappearance of the mature American chestnut due to another Asian fungus, elms were not completely at the mercy of their new parasite. In particular, a cultivar sold widely by New Jersey's Princeton Nurseries prior to the 1930s happened to be particularly resistant. As a consequence, scattered sites—including the quadrangle at Rutgers University in New Brunswick, New Jersey, where my office is located—are still filled with plantings of mature American elms.

The appeal of such groves in the twenty-first century derives, to a significant degree, from their uncommonness. More than a century ago, tastemaking Americans who chafed under elm monoculture were promoting alternatives. The Arnold Arboretum was established in the 1870s explicitly to test any tree that could grow in Massachusetts. These included both southern and western North American species (such as sequoia and various magnolias) and, especially after 1890, plants from China (including the dove tree and dawn redwood). The renewed interest in exotic
plants may have directly impacted elms. The cosmopolitan horticulturist David Fairchild re-imagined the nation's capital in the early 1910s by planting flowering cherries around the newly built Tidal Basin in place of a grove of elms. These contorted Japanese cultivars, dripping with both imperial tradition and orientalist romanticism, played a role in freeing the cultural landscape of the United States from the bland symmetries of nineteenth-century New England.

Similar but more complex transformations occurred in American grape culture. Ephraim Bull had achieved fame and influence by identifying both himself and his grape as Yankee natives, as that term was understood in the 1850s. The constraints of this identification became evident to Bull after the Civil War. Concord evolved from a rural center with an overlay of authors and bohemians to a suburb of Boston with historic weekend homes. The house next to Bull's, previously occupied by Alcott and Hawthorne, became the part-time residence of Harriet Lothrop, the wealthy writer who sentimentalized antebellum village poverty in The Five Little Peppers and How They Grew. Bull, however, did not change with the neighborhood. He grew his hair and beard long, tended his garden, tinkered with his grapes, and railed at the businessmen who, he believed, had taken advantage of him. His socially proper wife, unable to abide his eccentricities, left him around 1870. When, at age 87, he fell while trying to patch his leaky roof, he was put into a rest home, and the plants he had nurtured during the past fifty years soon died. The cranky epitaph on his tombstone was, "He sowed, others reaped."

The Concord, like Bull, was native only in a historically constrained sense. Bull classified it as a variety of labrusca because, like its wild relatives and unlike vinifera, it was self-infertile. But as culturists understood by the 1850s, species of Vitis hybridized readily. Bull believed that one parent of the Concord was a Catawba, a variety believed then to be native but in fact a Euro-American hybrid. He asserted that the original bird-dropped seed was wild; but since he and probably other Concord gardeners were enthusiastic planters of grape varieties imported from Europe by the Prince family, there is considerable likelihood that his unusually early and sweet volunteer was also hybrid. The original Concord, in sum, was probably the result of at least two generations of mixed breeding.

This revision of the Concord's genealogy provides a congenial avenue for reinterpreting its identity in the twentieth century. Traditionalist Jewish immigrants to New York needed a ceremonial wine that would be both kosher and inexpensive; to produce it, they turned to the grapes that were available on the Lower East Side—Concords—and, like Welch, added sugar to make the product drinkable. Schapiro's Kosher Wines, forthrightly advertised their syrupy beverage as "wine so thick you can cut it with a knife." The nativist Bull would likely turn farther in his grave were he to know that his grape was identified as much with Schapiro and Manischewitz as with Welch. But cultural hybridization has been a characteristic phenomenon in the history of North America during the last four hundred years; it would be surprising if grapes were different.

Notes


6 For more information on the Concord grape and the man who developed it, see "He Sowed; Others Reaped": Ephraim Wales Bull and the Origins of the 'Concord' Grape" by Edmund A. Schofield in Arnoldia (1988) 48(4): 4–15.

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