

# The Beech in Boston

by CORNELIA HANNA MCMURTRIE

The European beech, *Fagus sylvatica* L. Fagaceae, is a majestic tree indigenous to the moist, densely shaded forests of England and Europe, which graced royal parks and grand estates. It is not surprising then that *Fagus sylvatica*, despite its beauty and widespread use in Europe during the 17th and 18th centuries, was not found in America until the early 1800's. The early American settler depended on plants for food rather than ornamental value, as indicated by planting lists of early American nursery catalogues which offer primarily fruit trees, fruit-bearing shrubs and herbaceous material. It was not until the romantic, picturesque landscape movement and real estate development in 19th century America that the European beech appeared in American nurseries.

It is not entirely clear exactly when the European beech was introduced into America. The noted Swedish botanist and horticulturist, Peter Kalm, reports seeing *Fagus sylvatica* in the woods outside Philadelphia in 1748 (Kalm, 1972), and both Washington and Jefferson include it in their planting lists. This is undoubtedly the native American beech, *Fagus sylvatica americana* (*F. sylvestris*), now

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Figure 1. The famous beech planted in the 16th century at Newbattle, Scotland, shows the wide spreading form. On the left hand side of the tree, the pendulous lower branches have taken root, giving rise to a thicket of new stems. Reprinted from *The Trees of Great Britain and Ireland* by Henry Elwes and Augustine Henry. Edinburgh, 1906 Plate 8

named *Fagus grandiflora* Ehrh. (Loudon, 1842). In his 1814 and 1824 editions of *A Collection of Plants of Boston and its Environs*, Jacob Bigelow mentions only *Fagus ferruginea* or the red beech. In 1859, however, Andrew Jackson Downing, the great 19th century horticulturist, describes “the finest Copper Beech in America, fifty feet tall” (Downing, p. 150), growing on the grounds of Thomas Ash, Esq., Throgs Neck, N.Y. It would seem then that the copper beech, *Fagus sylvatica* f. *atropunicea* must have been introduced earlier than 1820. According to Professor Charles S. Sargent, the European beech first appeared that year in an American nursery catalogue. Another source notes that the copper beech originated first in England in 1830 with George Loddgeis (Wyman, 1971). David Hosack, founder of the Elgin Botanic Garden in New York City, America’s first botanic garden and the present site of Rockefeller Center, planted the magnificent weeping beech, *Fagus sylvatica pendula* at Hyde Park, New York in the early 1800’s. The exact date is undetermined.

The native range of *Fagus sylvatica* is from northern Europe to the western frontier of Russia, south to the Mediterranean and Crimea. It usually grows in pure stands as its dense shade and shallow root system suppress the growth of other species. In Europe it is found commonly on limestone soil but when planted will grow on almost any soil type.

The history of *F. sylvatica* (Figure 1) is an interesting one.

Neolithic and preglacial deposits in England show remains of the beech. It was known to the Greeks and Romans. Sixteenth century British writers speak of the beech nuts being used to fatten deer and swine. It also offers food to wildlife, shade to cattle, and was an important timber tree and source of fuel. For centuries it has been recommended for shady walks, avenues and hedges.

Literature abounds with references to the beech. Both Virgil and Pliny mention it. The Roman muses of Virgil lie beneath the shade of "beechen boughs." Pliny writes of a grove of beech trees consecrated to Diana. Crispus, a celebrated orator, considered one of these trees of such surpassing beauty that "he not only delighted to repose beneath its shade but frequently poured wine on the roots, and used often to embrace it" (Loudon, 1838, p. 1956). Robin Hood leads his merry men through beechen woods, and Germanic legends tell of the purple beech springing up from the blood of five brothers murdered in the forest. The beech is a trysting tree. Its smooth bark has recorded the names and poems of lovers from Roman times to the present: "Or shall I rather the sad verse repeat which on the beech's bark I lately writ?" (Virgil), "Who shall grave on the rind of my smooth beeches some beloved name?" (W.C. Bryant). Although Shakespeare does not mention specific tree species in any of his works, he must have had the beech in mind when Orlando says, "These trees shall be my books and in their barks my thoughts I'll character . . . Carve on every tree" (As You Like It, Act III Scene 2). Keats' nightingale sings in "some melodious plot of beechen green." From America Robert Frost describes the beech in his poem "A Boudless Moment":

"He halted in the wind, and what was that  
Far in the maples, pale, but not a ghost?  
. . . . A young beech clinging to its last year's  
leaves."

Perhaps the most famous poetic reference is Thomas Campbell's (1805) "The Beech Tree's Petition":

"Oh, leave this barren spot to me!  
Spare, woodman, spare the beechen tree!  
Though bud and flow'ret never grow  
My dark unwarming shade below;  
Nor summer bud perfume the dew,  
Of rosy blush, or yellow hue;  
Nor fruits of autumn, blossoms born,  
My green and glossy leaves adorn,  
Nor murmuring tribes from me derive  
Th' ambrosial amber of the hive;  
Yet leave this barren spot to me  
Spare, woodman, spare the beechen tree!

. . . . .



Figure 2. A 1903 photo of beech woods at Slindon Wood near Petworth, Sussex. One of the trees is 90 feet tall. Once acre of 60 trees averaging 150 feet yields 9000 cubic feet of timber to the acre. Reprinted from *The Trees of Great Britain and Ireland* by Henry Elwes and Augustine Henry. Edinburgh, 1906. Plate 6.

Since youthful lovers in my shade  
Their vows of truth and rapture made,  
And on my trunks' surviving frame  
Carved many a long forgotten name . . .

. . . . .  
As love's own altar, honour me:  
Spare, woodman, spare the beechen tree."

Such quotations already give a good description of the form of the beech. Of all the forest trees, it is the most recognizable for its smooth, silvery-gray bark. In its native habitat, it is known for its wide spreading form (Figure 1) or as a smooth, tall column if growing closely together with other beeches in a forest grove (Figure 2). *F. sylvatica* was used as an avenue tree in Europe in the 17th and 18th centuries, but its tendency to branch down to the ground necessitating laborious pruning brought an end to this landscape use of beeches. The beech is attractive at every season. In the spring the new foliage of the beech is "one of the most beautiful objects in nature in May — a tender, shimmering green of a shade not quite matched by any other tree" (Bean, 1951, p. 5). In summer, the shade it provides also has no equal. The fall foliage of the many varieties of *Fagus sylvatica* turns brilliant hues of orange, red, purple and russet brown in comparison to that of

the American beech which turns a rusty-yellow color. There are other differences as well. The leaves of *F. sylvatica* are shorter and less coarsely toothed, ovate or elliptic-acute versus the ovate-oblong and acuminate leaves of *F. grandifolia*. The petiole of *F. sylvatica* is more pubescent and the buds are smaller. The trunk and the whole tree is shorter, and the color of the bark is slightly darker gray. It does not sucker like the American species, and the exposed roots of the mature *F. sylvatica* form great swellings at its base. The wood of the European beech is hard and brittle. It is prolific in varying forms, lasting for centuries, which include many purple varieties, and also cut-leaved, columnar, weeping, round-leaved and twisted forms. The weeping form (*F. pendula*) has several magnificent examples in the New York area which are over 150 years old.

Because of the richness of variety of *Fagus sylvatica* (Bean, 1976, in his monumental encyclopedia, lists 23 clones), I will limit my observations to the typical form of *Fagus sylvatica* and two of its most widely used color variants, the purple beech and the copper beech, both now classified as *Fagus sylvatica* f. *atropunicea*\* (Rehder, 1949). The examples used are limited to Boston, Brookline and Cambridge. It is obvious that many other magnificent specimens exist in Boston and environs which could not be mentioned here.

It would be difficult to describe the European beech's attributes for landscape use any better than J. C. Loudon, the well-known English horticulturist:

"As an ornamental tree for the park and lawn, especially near the mansion, the beech has many important advantages. Though its head is more compact and lumpish than that of the oak, the elm or the ash, yet its lower branches hang down to the ground in more pliant and graceful forms than those of any of these trees. The points of these branches turn up with a curve, which though not picturesque, has a character of its own, which will be found generally pleasing. The leaves are beautiful in every period of their existence; nothing can be finer than their transparent delicacy, when expanding, and for some weeks afterwards. In summer their smooth texture, and their deep, yet lively green, are highly gratifying to the eye; and the warmth of their umber tint, when they hang on the trees during the winter season, as contrasted with the deep and solemn green of pines and firs, has a rich, striking, and most agreeable effect in landscape" (*Arboretum Britannicum*, 1838, p. 1965).

The European beech played an important role in the 19th century

\* In the nursery trade the purple beech is often called variety *purpurea* and the copper beech variety *cuprea*.

landscape movement in America which brought the English landscape into American suburbs, 'rural cemeteries' and city parks. The influence of 19th century American authors in their writings about the American wilderness, forests and agriculture, and about their travels abroad shaped an attitude toward nature and design of the land. Frederick Law Olmsted, Washington Irving and James Fenimore Cooper all recorded their trips abroad, including descriptions of English park scenery and the gigantic trees in the landscape. The 19th century American romantic view of nature as a work of art, growing out of the 18th century English view of the picturesque, classical and naturalistic landscape, called for the use of large trees with beauty, distinctive form, foliage and color. The smooth-barked beech with the soft and flowing lines of its branches set against a smooth, crisp lawn, embodied the picturesque and beautiful (or classical) attributes applied to the landscape by the 18th century landscape gardener, Humphrey Repton. Downing and his followers recommended the use of large ornamental, exotic shade trees for the American front yard. The copper beech was often used.

Boston and its environs provides an excellent example of romantic landscape and picturesque parks. In fact, Robert Morris Copeland, the 19th century landscape gardener and town planner, and author of *Country Life*, who emphasized the design and maintenance of ornamental grounds, wrote a pamphlet about Boston entitled "The Most Beautiful City in America." Downing, who through his writings and journals, had a great influence on the American landscape, was enormously impressed by Boston. "The environs of Boston are more highly cultivated than most of any other city in North America. There are here whole rural neighborhoods of pretty cottages and villas, admirably cultivated . . . The owner of a small cottage residence may have almost every kind of beauty and enjoyment in his grounds that the largest estate will afford so far as regards the interest of trees and plants" (Downing, p. 37). Downing encouraged the planting of large forest trees, acknowledging that "we Americans are proverbially impatient of delay, and having the feeling that it requires 'an age' for forest trees to 'grow up' . . . (but) we can hardly conceive a more rational source of enjoyment than to be able to walk, in the decline of years beneath the shadow of umbrageous woods and groves, planted by our own hands, and whose growth has become almost identified with our own progress and existence" (Downing, p. 39). The new suburban homes, according to H. W. Sargent in 1875, represented for Americans, a "country-place" as the ancestral estate had done in the past (Downing, p. 576). He recommends, in an appendix to Downing's *Treatise*, new trees for the villa gardens which are "striking and distinct" (Downing, p. 585), among them the purple and weeping beech.

The expansion of Boston and subsequent development of subdivisions was greatly enhanced by connecting parkways and parklands. Frederick Law Olmsted, the great landscape architect and

parkmarker, was also a town-planner. He believed that development should be sensitive to topography and natural planning and provide “a tasteful and convenient disposition of shade trees” (Reps, 1965, p. 344). To Olmsted, the informal and picturesque was greatly preferable to the rigid grid pattern of many cities across America. His design plans provided room for large trees and a park-like atmosphere in the city’s midst. Several neighborhoods in Brookline were laid out by Olmsted in this manner.

Downing was equally enthusiastic about Brookline: “The whole of this neighborhood is a kind of landscape garden, and there is nothing in America . . . so inexpressibly charming as the lanes which lead from one cottage, or villa, to another . . . the open gates, with tempting vistas and glimpses under the pendent boughs, give it quite an Arcadian air of rural freedom and enjoyment. These lanes are clothed with a profusion of trees and wild shrubbery . . . and curve and wind about, in a manner quite bewildering to the stranger who attempts to tread them alone; and there are more hints here for the lover of the picturesque in lanes, than we ever saw assembled together in so small a compass” (Downing, p. 40). Downing advocated the use of the beech in cities: “its thick and impenetrable mass of foliage . . . and density . . . makes it well suited to shut out unsightly buildings or other objects” (Downing, p. 149).

David Sears, a Brookline developer in the 1830s, and known for building the Sears Chapel which overlooks the Boston Park System, provided one of the finest and earliest examples of the use of *Fagus sylvatica* in America. Between Kent Street and Hawes Street in Brookline is Longwood Mall (or Square), listed now in the National Register of Historic Places, where 15 *F. sylvatica* and *F. s. atropunicea* were planted by Sears (Figure 3) between 1826 and 1838. Since then, 14 additional beeches have been planted. All of them are substantial trees with the original trees averaging heights of 70 feet. Figure 4 shows the magnitude of these impressive trees. For anyone who does not know this idyllic setting, it is worth a visit, not only to see some of the oldest *Fagus sylvatica* in America, but for a unique and pleasurable walk in a beautiful small park surrounded by lovely, historic houses (Figure 5). The trees are informally grouped creating spaces of varying sizes and allowing passage and viewing throughout the area. Considering the small size of the mall (35 × 300 yards), the variety of visual experiences is significant.

C. S. Sargent served on the Brookline Park Commission while he was director of the Arboretum and took a great interest in these trees. He describes them in a 1925 *Horticulture* article as “probably the finest grove of the European Beech in the United States.”

Many other specimens of grand beeches grace the streets and front lawns of Brookline and Boston. Two outstanding examples of *F. s. atropunicea* (copper beech) stand on the lawn of the Elisha T. Loring house at 21 Mill Street in Dorchester. Figure 6 shows the immensity of one of the trees which measures over 6 feet in diameter and is approx-

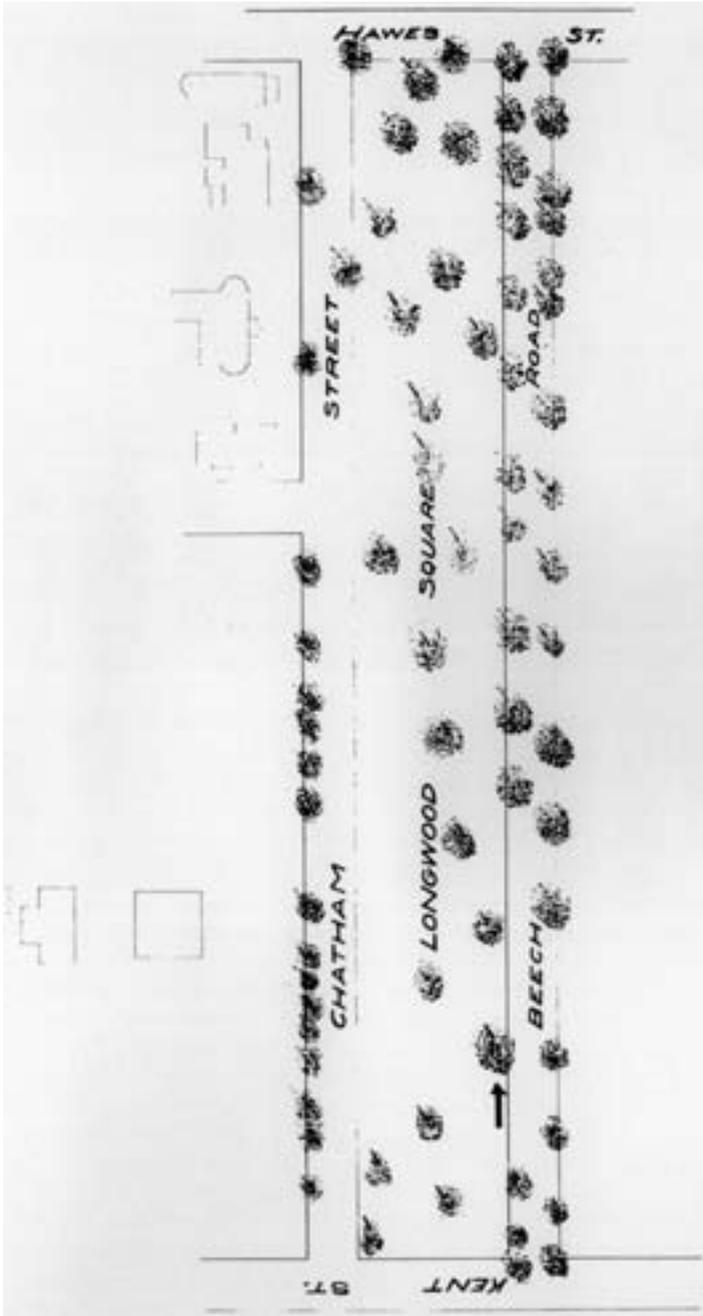


Figure 3. A 1918 plan showing the 15 original beech trees planted by David Sears in the 1830s. The arrow points to the largest tree, 36 inches in diameter in 1918, its diameter as of November 1981 was 5½ feet. Twenty-name specimens now stand in the mall, including the original 15.



Figure 4. One of the larger specimens of *Fagus sylvatica* on Longwood Mall in 1981. Photograph by P. Del Tredici.

imately 70 feet tall. The spread of the mass of roots at the base is over 8½ feet, and the branches which engulf the front yard and hang over the entire street spread 70 feet. There are several other beeches in this historic neighborhood which, according to residents, remains much the way it was almost 150 years ago. It is conceivable, since the house is placed in the middle of the lot, that the house was planned around the larger of the two beeches, which now flank the entrance walk. It is more likely, however, that the trees were planted shortly after the house was built in 1845.

The creation of 'rural cemeteries', forerunners of city parks, in American cities was a direct result of the picturesque landscape movement, the growing economy, and the rise of technology and of a middle class. They were one of those "grand improvements in civilization", according to Downing. Literary people and captains of industry were instrumental in their establishment. These cemeteries became sylvan retreats for the public, a more tranquil environment outside the city in which to take Sunday walks and drives, meet with friends and visit the graves of departed ones. The scale and opulence of the cemeteries were symbolic of the times. The emphasis on the planting of beautiful majestic trees assured a place to the noble beech. At Mt. Auburn Cemetery in Cambridge, consecrated in 1831 as the first rural cemetery in America, and a gathering place for literary figures of Boston, the large avenues are all named after large trees, and there are several great, old specimens of European beech. A particularly beautiful *F. s. atropunicea* which is over 100 years old and measures



Figure 5 *F. sylvatica* in relation to one of the houses built during the 19th century development of Longwood Mall. Photograph by P. Del Tredici.

5 feet in diameter lends grandeur and stateliness to its environment. The weeping beech, *F. s. pendula*, is a particularly fitting choice for the setting. Forest Hills Cemetery in Boston, founded in 1848, echoes the same magnificence. As at Mt. Auburn, the grounds contain huge lofty European beeches which spread their protective branches over the gravestones below.

Early in the 19th century, the public outcry for green open space within the city of Boston brought about the opening of the first public Botanic Garden in America in 1828. It was run by a group of private citizens until 1852 when the city offered a competition for a landscape plan which was won by George V. Meacham. The plan was executed and by 1880, 1500 trees had been planted in the Public Garden. Among them were four European beeches.

The relationship of the garden suburbs to the adjoining parkland was part of Olmsted's master plan for the park system. An excellent example of this is Jamaica Park and the houses which bordered it. Because of the tree lined, connecting parkways and abutting parkland, it was difficult to tell where front lawns left off and parkland began. Ample space was provided for large trees. These provided a shelter and effective screen from the turmoil of city traffic.

Although Olmsted was not against the use of some exotic trees in the Boston Park System, as mentioned elsewhere in this issue, his planting lists for the Boston Park System indicate only the American beech. On the Pine Bank, the former site of the Perkins Estate, overlooking Jamaica Pond, there are a few *F. sylvatica*, one of which was most likely planted by the Perkins family. John Pettigrew, the park superintendent of Boston, who took over the planting of the Boston



Figure 6 (left). *Fagus sylvatica atropunicea* (copper beech) at 21 Mill Street, Dorchester, in the front yard of the 1845 Elisha T. Loring House. The author stands next to this tree to show its immense size. Photograph by P. Del Tredici. Figure 7 (below). A grove of European beeches bordering Scarboro Pond at Franklin Park, Boston. Photograph by C. McMurtrie.



Park System from the Olmsted firm in 1897, appears to have included the European beech for Franklin Park, surely because it blended harmoniously with the native woodlands. A beautiful grove of *F. sylvatica* overlooks Scarboro Pond and provides the desired bordering effect (Figure 7). These trees were probably planted around 1900. On the southern edge of Country Park Meadow along Circuit Walk is another stand of beech. The silvery trunks and great branches spreading high above the rolling smooth meadow are a magnificent sight.

Another famous Olmsted park, the Arnold Arboretum, boasts a superlative collection of *Fagus sylvatica*. The 20th century horticulturist, Donald Wyman, a staff member of the Arboretum for 33 years, wrote that *F. sylvatica* and its varieties should head the list of desirable shade trees. Curiously, E. H. Wilson does not mention the European beech collection in his book on the Arnold Arboretum, *America's Greatest Garden*, although we know he is an enthusiast of beeches from his other writings. The Arboretum's collection, on the slope near the South Street Gate, comprises 56 individuals including 20 varieties. One of the largest trees in the collection, *F. s. atropunicea*, is on the other side of the slope, on the former site of the Bussey Institute. Its origin is unknown but its huge size (70' × 70' and 5' in diameter), suggests that it is at least 100 years old. The oldest tree in the collection is the typical form *F. sylvatica*, grown from seed supplied by Meehan & Co. in 1875. The illustration on the inside back cover of this issue shows the elephantine, silvery smooth trunk with the typical spreading roots of a venerable tree.

The role that the European beech played in the American landscape movement of the 19th century is captured well by Henry W. Sargent: "One can hardly imagine, without having seen it, the sensation of entering a place through dark Yews, the dwarfer Weeping Hemlock, the Purple Oak, Purple Beech, the deep, red Atropurpurea Maples, and gradually driving into the sunlight effect of the Silver and Golden Retinisporas, Golden Yews (and) Golden Arborvitae..." (1977, pp. 587-8).

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Right: Trunk showing the magnificent size of a specimen of *Fagus sylvatica* at the Arnold Arboretum. Back cover: An ancient pedunculate oak, *Quercus rober*, in Pinnock's Wood, New Forest, England, one of the few relics of the primeval Northwest European wildwood. Photograph by P. Ashton.