

Home & Garden

# After a winter restoration, the famed Hornbeam Ellipse is almost back

By **Adrian Higgins**

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The Hornbeam Ellipse at Dumbarton Oaks has been in steady decline for years. It is now the subject of a major renovation. (Dumbarton Oaks/Dumbarton Oaks)

The historic garden at Dumbarton Oaks in Georgetown is a necklace of finely crafted spaces, but one garden room stands out as particularly special. The Hornbeam Ellipse is an enclosed oval terrace in the heart of the 16-acre garden, formal yet serene. Its soulfulness comes from its perfect proportions — it is both expansive and intimate — and from the strength and simplicity of its design.

An 18th-century Provençal town fountain is surrounded by a double ring of hornbeam trees. Bare-trunked up to eight feet, these deciduous trees with beechlike foliage are clipped to form an encircling hedge on its own stilts. Gardeners call it an aerial hedge. Since it was created in 1960, the Hornbeam Ellipse has been copied near and far, but never equaled.

Keen-eyed visitors over the years will have noticed that while the hedge has remained fairly intact, the trees have been ailing. “There should be 76 trees,” said Jonathan Kavalier, director of gardens and grounds. “We were down to 41.” The trees that remained had lost vigor and required just one clipping a year (in early July), instead of the earlier two annual trims.

After five years of planning originating with Kavalier’s predecessor, Gail Griffin, the Hornbeam Ellipse is in the midst of a major [replanting renovation](#) that began in January and should be finished by early April.

The winter has been kind — not too many deluges or freezes to halt the work — and the project is close to completion, though spring visitors will not have full access to the ellipse until the replacement turf is established, which will take a few weeks.



By early April, gardeners will install 76 new trees after two months of wholesale soil replacement. (Luis Marmol/Luis Marmol/Dumbarton Oaks)

The upright form of the European hornbeam is a common screening plant, but the hornbeams here are of the native species (*Carpinus caroliniana*), and to reach a size and shape to produce a new aerial hedge, they were contract-grown and formatively pruned by [Raemelton Farm](#) in Adamstown, Md.

With heights of 11 feet and trunk widths between 2 and 3½ inches, they already have stature. The American hornbeam is also one of the tree species that prefers to be transplanted in the spring rather than the fall, hence the timing.

What happened to the old trees? They were getting on a bit, and the constant clipping added its own stresses, but the principal concern was with the soil, which had grown dense and lifeless. This may be due to the way each of the planted panels — there are 13 of them between radial paths — were dressed in a gravel. This invited people to walk on them, which added to the soil compaction.

Kavalier convinced his bosses that the scope of the renovation should increase significantly with the wholesale replacement of the old soil. Excavating down to three feet, gardeners removed about 350 cubic yards of old soil. They put down a 12-inch free-draining base layer. Above that the beds were backfilled with a compost-sand mixture blended with half of the original, excavated soil. The intent is to create a biosphere for soil microorganisms now known to be key to the vitality of trees. The team worked with organic soil expert Eric T. Fleisher, of [F2 Environmental Design](#), to create the soil mix.



When the old trees were removed, Fleisher said, the roots were poorly developed for such mature hornbeams. “You could practically push them over,” he said.

Planting the new trees “was the easiest part of the job,” said Kavalier. “It was the soil excavation and mixing that was the tough part.” Even the tree planting had its challenges, however; the new trees had to be positioned exactly as the old ones to keep the complex geometry of the design. “We agreed that one inch would be the tolerance of deviation from the design,” he said.

The master designer of the Dumbarton Oaks garden was Beatrix Farrand, working for its creators, Mildred and Robert Woods Bliss. The Blisses gave the property with its historic mansion to Harvard University, which runs the estate and its library and museums as an enclave for scholars of byzantine and pre-Columbian art and landscape design history. The garden is open to the public; ticketed admission for the season begins March 15.

Farrand first planted the ellipse with tall boxwood hedging, linking it to the boxwood-lined path down to the site. But the boxwood was declining even during Farrand’s tenure, and after her retirement the trustees of the garden turned to the noted Colonial Revival landscape architect [Alden Hopkins](#) to rework it.

The fountain was first in a wooded area on the west side of the garden but was moved to the center of the ellipse in 1967 to make way for architect Philip Johnson’s contemporary pre-Columbian Collections wing.

American hornbeams are valued for their sinewy silver bark — they are also called musclewood — but they are slow-growing. Kavalier hopes the trees will quickly establish in the organic soil and will be ready for shaping in three years.

In time they will be back to their full glory, a double hedge perched above the visitor's head that is 16 feet high and 18 feet across.

Kavalier, meanwhile, is still figuring out whether to replace the gravel with a ground cover and will be keeping an eye on the trees. "There might be some listing to correct," he said. "I thought about staking them, but I just pictured this maze of guy wires, and it didn't seem like a good idea."

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