The origin story of the Arnold Arboretum’s dual relationship with Harvard University and the City of Boston has many fascinating twists and turns, yet at its heart was a belief that the institution could generate a greater impact in pursuing its mission as a public resource. Founding Director Charles Sprague Sargent found a valuable ally for this transformational idea in Frederick Law Olmsted, the pioneering American landscape architect who co-designed the Arboretum with Sargent, who had also begun working with the City on expanding its park system. Both men were visionaries and true believers in the intrinsic value of preserving nature and natural systems in urban areas.

Despite initial resistance from both the City Council and Harvard’s President Charles Eliot, negotiations to make the Arboretum part of the park system began in 1877 and took several years to complete. When an agreement was finally signed in 1882, the Arboretum landscape officially became part of the Boston Park system, a would eventually be the penultimate park in Olmsted’s Emerald Necklace. In exchange for its donation of land to the City, Harvard received additional services for the Arboretum from Boston, including the construction and maintenance of sidewalks, roadways, walls, and gates. The City also agreed to shoulder policing and security, and to connect the Arboretum to municipal water supplies. Harvard’s lease on the total acreage—including parcels contributed by the City—extended to 1,000 years with the right to renew for another millennium, at the rate of one dollar per year.

Since that time, Harvard has focused on managing the Arboretum landscape and acquiring, growing, and stewarding a comprehensive collection of woody plants from around the world for study, education, and appreciation. The institution’s relationship with its municipal landowner has ebbed and flowed over the decades, often reflecting changes in Harvard and Arboretum administration and the City’s political climate. When Ned Friedman became the eighth director of the Arboretum in 2011, he made a concerted effort from the start to build mutually beneficial relationships with City officials and Boston parks affiliates, in order to jumpstart long-desired improvements to parts of the Arboretum landscape under City control.

An opportunity for renewed cooperation came almost immediately in fall 2011 when a large section of stone wall along the Arborway collapsed onto Willow Path. When the City met its responsibility in repairing the wall damage—along with a separate project to repair an unrelated collapse in the roadway over Goldsmith Brook at the Arborway Gate—the Arboretum began to assess the condition of other parts of its City-managed...
Partnering with Boston on improving the Arboretum’s edges

Jon Hetman, Associate Director of External Relations and Communications

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Castanea pumila

The crumbling puddingstone walls along South Street bordering Paul Sutton, the Arboretum turned for help to Boston Parks would need to be fully engaged and persuaded. In addition to with responsibility for the integrity of the Arboretum perimeter, Higher genetic diversity generally means greater potential for renovation, and on this point the Arboretum already had a number of friends in its corner. One was Paul Sutton, program manager of the Urban Wilds Initiative of the Boston Parks and Recreation Department, who for years had utilized part of his modest annual repair budget to help fund restoration of sections of the South Street wall. Though his contributions were timely and meaningful, more help was needed to complete a full renovation of all Arboretum walls.

To move the project ahead, the City of Boston, as landowner with responsibility for the integrity of the Arboretum perimeter, would need to be fully engaged and persuaded. In addition to Paul Sutton, the Arboretum turned for help to Boston Parks Commissioner Christopher Cook (now Chief of Environment, Energy, and Open Space) and City Councilor Matthew O’Malley. The Arboretum had worked closely with both on a number of issues, and had received their encouragement regarding the aims of an infrastructure-needs assessment the Arboretum submitted to the City. Councilor O’Malley led efforts to recognize some of these needs in the City’s operational budget, and Commissioner Cook assisted the Arboretum in calling attention to some of the Arboretum’s critical needs with his colleagues at City Hall. Last year, Boston received a windfall settlement as part of a development deal in the Back Bay, and—with the extraordinary advocacy of Manager Sutton, Commissioner Cook, and Councilor O’Malley—a sum of $100,000 was allocated to fund a major survey and design plan for restoring all of the Arboretum’s puddingstone walls. Substantial funding from Boston—up to $1 million—has been reserved to complete the renovation.

Although the Arboretum is both a unit of Harvard University and a part of the Boston park system, nearly everything the Arboretum does to expand and preserve its collections, to advance scientific study, and to educate and engage the public is funded by past and present philanthropy. There will always be a need for the Arboretum to rely on the generosity of its friends to achieve its vision, and for 137 years the City of Boston has played a defining role in shaping how the public connects with this landscape. With at least 863 years left to go on the first 1,000 years of our lease, there is much to look forward to as this most unique of relationships continues to blossom.

[Continued from page 11] have significant genetic diversity, but the amount of diversity varies among populations and species. Higher genetic diversity generally means greater potential for adapting to changing environments.

These research projects began in the Arboretum’s living collections. I visited the Arboretum’s chestnut and ash trees last spring, checking the winter buds and waiting for leaves to emerge. Most of the chestnuts and ashes at the Arboretum have been collected from wild populations. Some were collected close by, like an American chestnut from Petersham, Massachusetts (24-80*A); others originated on the distant edges of the species’ ranges, like a chinquapin (Castanea pumila) collected in Arkansas (21486*A). I sampled young leaves (often the best for DNA extraction) from all of these trees in early spring. To draw a broader picture for each species, I made several field excursions to collect leaves from populations throughout each species’ range, visiting sites in Arkansas, Mississippi, Florida, South Carolina, Georgia, North Carolina, and Virginia. After extracting DNA from all of the leaves I amassed, I should obtain the first genetic sequences within the next few months.

Essentially, I’m looking for insights into both the past and future of these species. Genetic variation in a species carries clues of past events that can be disentangled to reconstruct aspects of its history. In this way, genes can show us how natural forces have caused adaptation, changes in population size, migration, or even hybridization. This project will also provide important information for future conservation efforts by identifying populations that are particularly distinctive or genetically diverse. Often, conservation strategies that protect the broadest range of genetic variation within a species will give that species the best chance to adapt to current threats and future climatic changes. This kind of genetic information can also be useful for horticultural breeding programs that aim to produce individuals adapted to a specific environment or with particular characteristics, like disease resistance.