It is necessary to devise a system of roads and walks which should make easily accessible to a large number of visitors every plant in the collection, and which, without interfering with the scientific necessities of arrangement, should open up and develop, as far as possible, the remarkable natural beauties of the ground.” —Charles Sprague Sargent, 1878

Often the most noticeable changes that occur in the Arboretum’s landscape are the comings and goings of the trees. No one could have failed to notice, for example, the dramatic removal of several stately, ancient-seeming beeches suffering from beech bark disease along Beech Path a few years ago, while Lilac Sunday visitors seem always drawn to the newest lilacs planted along Bussey Hill Road. Yet there are other, more subtle changes to the landscape that significantly impact both the experience of visitors and the health of the Living Collections. Over the past year, a newly formed Paths Committee has worked with Arboretum horticulture staff to install several new mulched woodchip paths designed to invite explorations of the Arboretum “off-road.”

The members of the Paths Committee (Head of Horticulture Andrew Gapinski, Plant Records Manager Kyle Port, Gardener Brendan Keegan, Manager of Visitor Engagement Kate Stonefoot, and Living Collections Fellow Jared Rubinstein) collaborate to develop a network of paths that invites and guides visitors through the landscape while facilitating the study, care, and interpretation of plants in the Living Collections. While we spend much of our time discussing the routes, signage, and structure of new paths, we’ve also dedicated ourselves to understanding how the path system developed over time into what we now see across the landscape. A dive into the Arnold Arboretum Archives has helped us understand what has and hasn’t worked in the past, and how we can continue to fulfill Founding Director Charles Sprague Sargent’s vision to “open up...the remarkable beauties of the ground.”

The design of the Arboretum grew out of Sargent’s close collaboration with Frederick Law Olmsted, who laid out the path and roadway system and designated areas within the Arboretum for specific groups of plants. As Sargent envisioned, “a visitor driving through the Arboretum will be able to obtain a general idea of the arborescent vegetation of the north temperate zone without even leaving his carriage.” In avoiding straight lines and allowing the roadways to curve and follow existing topography, Olmsted and Sargent provided visitors with a naturalistic view of all the plant families represented at the Arboretum.

And yet, there was only so much one could see from a carriage—how, for example, could a visitor or student get close enough to compare flower morphology of the magnolias? In the last decades of the nineteenth century, most botanic gardens like the Arboretum expected visitors to “keep off the grass,” using signage and foot barriers to preserve the integrity of planting areas and the aesthetics of the park. Sargent, an explorer and avid plantsman himself, eschewed this position and, beginning in 1896, oversaw the development of a network of mowed grass paths that guided visitors off of the roadway and into the collections. “All principal collections can now be reached by these paths,” Sargent wrote in 1902, “which are useful for students and attractive to the general public.”

These grass paths were indeed attractive to the general public—the Boston Globe reported that this “absolutely novel park feature” was such a delight “that there comes to one an almost instinctive impulse to remove shoes and stockings to tread barefooted through the rich velvety green...” Throughout the first few years of the twentieth century, the Arboretum mowed at least 3.5 miles of grass paths, including what would eventually become portions of today’s Oak Path, Conifer Path, and Beech Path.

Although the grass paths were “cheaply made and maintained,” according to the Globe, they were not to last.
Some paths crossing the Arnold Arboretum landscape have long histories of bringing scientists and visitors alike deeper into the living collections. One of these is Oak Path, which crosses through the Arboretum’s midsection from Valley Road to Beech Path via the western slope of Bussey Hill. Counter-clockwise from the top left, the same section of Oak Path is seen in a 1903 photograph by Thomas Marr, a 1980 photograph by Richard Weaver, and a photograph captured this summer Jared Rubinstein. While the location of path has remained more or less constant, its character has evolved from cut grass to well-trod turf to a seasonally-refreshed layer of chipped mulch.

Mechanization of landscape maintenance after the 1938 hurricane, diminished resources during the Second World War, and a cultural shift away from a more naturalistic park aesthetic led to the eventual abandonment of the carefully-mown paths. The meadows once filled with “daisy-studded grass,” as described by the Globe, were slowly mowed down and replaced with turf.

It wasn’t until the 1980s that the Arboretum sought to refurbish these historic grass paths. As part of a larger Arboretum-wide restoration, newly appointed Arboretum director Peter Ashton announced in 1981 his intention “to reintroduce natural herbaceous flora in selected areas and simultaneously to regrade and redefine the original paths, thus encouraging more general use of the Arboretum by the public.” The restoration aimed to rebuild the historic grass paths by allowing grasslands to regenerate into meadows, while also seeding them with wildflowers such as black-eyed Susan (Rudbeckia hirta), bee balm (Monarda sp.), and goldenrod (Solidago sp.). New paths would once again be mowed carefully through these wildflower meadows, thus recreating the naturalistic beauty so admired in the early 1900s.

Despite their beauty, however, the new grass paths quickly became a maintenance nightmare. The newly unmanaged meadow areas quickly became a haven for invasive weeds like oriental bittersweet (Celastrus orbiculatus) and black swallowwort (Vincetoxicum nigrum), which threatened to engulf the Living Collections if left unchecked. Furthermore, the number of visitors walking on these paths in the 1980s was significantly higher than in 1912, and the grass paths often turned to worn earth. By 1986, managing [continued on page 13]
“Exploring for katsura”
A story shared by Michael Dosmann, Keeper of the Living Collections

The Arboretum’s most celebrated plant collector from the early twentieth century is Ernest Wilson. Between 1899 and 1922, Wilson spent years on expeditions to countries worldwide, collecting plant material and herbarium vouchers and taking photographs with a large camera. He is responsible for introducing an estimated 2,000 species into Western cultivation. At the Arboretum, he eventually served as “Keeper,” a title acknowledging his prolific contributions to the plant sciences and profound impact on the Arboretum’s collections.

In 1910, Wilson led an expedition to China. Deep in Sichuan Province, he came upon a katsura with a diameter of 17.5 feet—a massive specimen, and the first Wilson had ever seen with fruit. He memorialized the discovery with a photo, posing his fellow plant collectors in front of the tree for scale.

Over a century later, Arboretum staff recreated the scene at the very same tree. Plant collectors from the Arboretum and several other institutions went to China as part of the North America–China Plant Exploration Consortium—called NACPEC—a joint initiative between botanical institutions across continents to increase biodiversity and conservation of plants. In the intervening years, the tree had flourished as a forest grew in around it, growing 40 feet taller.

[Walkways, from page 11] horticulturist Gary Koller wrote a desperate memo to Peter Ashton exclaiming that “the volume of pedestrian traffic has increased to the point where the grass seedlings will be stomped to death before they have time to become well established.” Visitor foot traffic increased the compaction of the soil, leading to erosion on either sides of the paths and standing water throughout the year. As a result, visitors would avoid the paths all together, walking instead through the dry meadow areas, creating new desire lines and trampling the wildflowers growing there. Koller recommended covering paths with gravel, and mowing the grass regularly to remove invasive species.

But the story doesn’t end there. Since 2015, the Arboretum has revisited the issue of how to reestablish wildflowers and native plants in the landscape while expanding foot access across the entire Arboretum. On the recommendation of the Arboretum’s Soils Advisory Committee, horticulture staff developed several “no-mow” and “reduced-mow” areas where the spontaneous flora is allowed to flourish. The edges of these areas are well defined and change throughout the year based on access needs, weed presence, wildlife timing, and aesthetics. When weedy species pop-up at low levels within the no-mow areas, horticultural staffers manually remove the unwanted plants.

Finding a happy medium between the naturalistic grass pathways of the early twentieth century and the gravel paths of the 1980s, horticulture staff began laying out a series of mulched woodchip paths through areas of reduced mowing. These paths help prevent soil compaction by limiting the use of mowers, guiding visitors, staff and equipment along specific routes, and directing traffic away from the root zones of trees. The mulch also allows water to both flow off the path and seep into the ground, preventing the mud and puddles that plagued the earlier efforts.

While a few, less-trafficked spots in the Arboretum remain where grass paths could be both appropriate and beautiful, our new mulched paths have proven extremely successful and popular for visitors, and once again allow visitors to “wind invitingly through waving meadows, grassy valleys…and glens,” as reported in the 1912 Globe article. The Paths Committee continues its work to develop and refine how we all interact with the Arboretum landscape and the magnificent plants growing here. We hope your next visit includes some quality time for exploration along these new pathways for discovery.