



We're turning 100!

During 2007, Matthaei Botanical Gardens and Nichols Arboretum will be celebrating a very special anniversary—100 years since the University established the Botanical Garden and Arboretum on what is now the Nichols Arboretum property. In January 1907, the Regents of the University officially accepted a gift of land from Walter and Esther Nichols that would be combined with additional gifts of land from Professors George Burns and the Detroit Edison Company, land purchased by the University, and land owned by the City of Ann Arbor to create the University's Botanical Garden and Arboretum. The property was used as both botanical garden and arboretum for about a decade until the Botanical Garden moved to a site on Iroquois Street near what is now Stadium Boulevard and Industrial Highway. In 1957, Frederick C. Matthaei, Sr. and his wife Mildred Hague Matthaei donated some 200 acres of land that would be combined with the adjacent Matteson Farm to create the current Matthaei Botanical Gardens. Over the ensuing years, both of these unique properties have become treasured community resources as well as critical research and teaching facilities for the University of Michigan. During 2007, we'll be celebrating our centennial and the 50th birthday of Matthaei Botanical Gardens by developing a series of interpretive displays to illustrate our history. These will be showcased in their entirety at Matthaei Botanical Gardens and in part at the Reader Center at Nichols Arboretum. We hope you'll come visit us during this special year! What follows here is a brief synopsis of our history.

Botanical Garden and Arboretum (now Nichols Arboretum)

The need for a university botanical gardens and arboretum was recognized by the founders of the University of Michigan in 1817, but it wasn't until 1907 that property solely dedicated to these uses was set aside with the exception of a small makeshift garden on campus established by Julius Schlotterbeck and Volney M. Spaulding.¹ In 1906, Professor Frederick C. Newcombe, and George P. Burns, both associated with the Department of Botany, orchestrated the idea for a jointly operated botanical garden and arboretum between the University of Michigan and the City of Ann Arbor. Ossian Cole Simonds, noted landscape architect and UM Alum who would later found the landscape architecture program at the University, was hired to develop a plan for the 80+ acre tract extending from Geddes Road on the south to the Huron River on the north. Simonds designed the main road through the land's steep and gently rolling glaciated topography to link with the city's park and boulevard system along the Huron River and suggested new plantings that would combine with existing forested areas to create a series of outdoor rooms for visitors to explore. As Simonds noted in a newspaper account at the time, he considered the land with its diverse habitats to already be "an excellent botanical garden" and suggested that "with a

¹ Harley H. Bartlett, "The Botanical Gardens at the University of Michigan," *Michigan Alumnus Quarterly Review*, February 20, 1943. Reprinted in *Bartlettia*, 2: 3 (February 1982).

little work it can be made into one of the best in the country.”² The “natural endowment” of the property included a “variation in elevation of 175 feet, and both steep and gentle slopes facing every point of the compass; a variety of soils from rich clay to gravel, as well as a considerable boggy area; and a varied native flora that includes some 75 species of trees and shrubs.”³

Within just five years of the establishment of the University’s Botanical Garden and Arboretum, botany faculty were already discontent with the “Geddes property” and proposed a new facility on “twenty acres of level fertile land” on Iroquois Street in Ann Arbor that would accommodate much larger greenhouses and laboratories as well as outdoor planting display areas. Under the direction of Henry A. Gleason, the first greenhouses and the laboratory were opened in February, 1916. As Gleason noted, “for six months or more of the collegiate year the Botanical Garden must provide greenhouse facilities where classes may study growing plants and investigators carry on their research.”⁴ The small greenhouses on the Geddes property were seen as inadequate for these purposes and the steep land throughout the Geddes site limited the kinds of research and display plots desired by botany faculty at the time. This division of the Botanical Garden and Arboretum into two separate entities within the University would persist for 88 years.

Nichols Arboretum

With the development of the new “Botanical Garden” on the Iroquois site, overseeing the Geddes property fell to Aubrey Tealdi, head of the Department of Landscape Design, in 1916. In 1923, the name of the property was officially changed to “Nichols Arboretum.” Under Tealdi’s direction, many of the best-loved features of the Arboretum were established. These include the Peony Garden, established with a gift of peonies from William E. Upjohn in 1922 and developed between 1922-27, a large collection of lilacs, the Heathdale collection of ericaceous plants, and the general collection of woody plants with many of the earliest specimens coming from the Arnold Arboretum of Harvard University. Tealdi took great care to arrange plantings so to keep the central valleys open, respecting “the natural beauty of topography and vegetation” of the existing site and arranging native and foreign plants “as specimens or in groups and masses...to make them readily available for study both by students and the general public.” One of the emphases was on evaluating both native and horticultural varieties for their adaptability to climate, soils, exposure and various landscape applications. Unfortunately for us today, the list of species planted included common buckthorn, various honeysuckle varieties and other trees and shrubs now known to readily invade natural areas. The value of the property as a refuge for birds and other wildlife was also recognized and early activities included feeding birds through the winter months.⁵ Throughout its history, Nichols Arboretum has continued as one of the best studied ornithological sites in Southeast Michigan and is particularly noted as a place for watching spring and fall bird migrations.⁶

Development of the Arboretum did not come without challenges, however. Sledding and partying activities, cars leaving the roads, trampling and general vandalism plagued many of the early plantings. During the 1920s, plans were pushed by a number of faculty to abandon the development of an Arboretum and turn the property into a winter sports facility. Plans drawn up in 1921 by Professor F. N. Menefee in Civil Engineering proposed damming the stream in the

² *Ann Arbor Daily Argus*, August 16, 1906.

³ Aubrey Tealdi, “The University Arboretum,” *The Michigan Alumnus*, March 30, 1922.

⁴ H. A. Gleason, “Plans for the Development of the Garden, May 1917” Reprinted in *Bartlettia*, 2: 3 (February 1982).

⁵ Tealdi, 1922.

⁶ Michael A. Kielb, John M. Swales, and Richard A. Wolinski, *Birds of Washtenaw County* Ann Arbor, MI: University of Michigan Press 1992.

main valley to create a shallow reservoir for ice skating and hockey and the creation of several toboggan, sledding and ski runs on the Arboretum's hills. In the early 1930s, President Ruthven assembled a task force to evaluate the future of the Nichols Arboretum property, and the group affirmed its value as an arboretum and urged protective measures to be taken by the University and City to protect plantings, restrict automobile use of the property, and guard the Arboretum's future. The committee affirmed the value of the Arboretum to the community and University: "It should be kept so that it might become a haven of quiet one hundred years from now when our rich native flora will have become a thing of the past in most places."⁷

In the decades that followed, other improvements were made to the Arboretum property and to its programs. Over three miles of foot trails were constructed with help from workers associated with the WPA in the 1930s, and, in 1934, *Hardy Plants in Nichols Arboretum* was published, detailing the woody plants contained within its collections. In 1943, 36 acres including Alex Dow Field was added to Nichols Arboretum. In 1951, Mr. and Mrs. James Inglis donated their nine-acre estate adjoining the Arboretum to the University and the property was brought under the combined management by the Arboretum (management of the Inglis House and grounds was transferred to the Grounds Department in the early 1980s). The Arboretum served as a laboratory for university classes (especially in woody plants and landscape architecture), a haven for students escaping dormitory life or taking a break from their studies, a quiet place for community residents, an attractive route for joggers and walkers, and a valued place for plant study and birdwatching. Guiding the development of the Arboretum through these years were Harlow Whittemore (1934-1958), Walter Chambers (1958-1968), and Charles Cares (1968-1986).

In 1991, the Friends of Nichols Arboretum was begun to provide support for Arboretum events, programs and fundraising. About the same time, the Arb initiated a docent program in conjunction with Matthaei Botanical Gardens to assist with offering interpretive tours and other programs at the Arboretum. It became clear to Director Harrison Morton (1986-1999) that indoor classroom and meeting facilities were paramount to fulfilling the Arboretum's teaching mission. Several options were explored for building an urban environmental education center on the grounds, but all seemed out of reach until the opportunity for moving the Burnham House from Wall Street arose. The Burnham House, dating from 1837, had been acquired by the University for the expansion of parking for the Kellogg Eye Center and was available for relocation. With the help of Quinn-Evans Architects, plans were developed to move the house from its site on Wall Street to the Washington Heights entrance to Nichols Arboretum on a small triangular piece of land leased from Forest Hill Cemetery. With generous support by James D. and Helene C. Reader, the Wilkinson Foundation, and Detroit Edison, the Burnham House was moved in 1998 and dedicated as the James D. Reader, Jr. Urban Environmental Education Center in 1999. Since that time, it has served as the center for a variety of programs and celebrations for the Arboretum. The colorful Gateway Garden was designed by Oehme-van Sweden and Ayres Lewis Norris & May. It showcases a wide variety of plants for attracting birds and butterflies while serving as a rainwater garden, slowing and filtering the stormwater that moves through the site.

During the 1970s and 1990s, conscious efforts were renewed to carefully steward natural areas in the Arboretum. Under Director Chuck Cares, the native prairie grasses in Dow Field were encouraged, and in the late 1980s under Director Harry Morton a prescribed burning program was begun to rejuvenate the prairie flora and also to restore integrity to nearby oak woodlands. With the help of Professor Bob Grese, volunteer workdays were begun to remove invasive flora from various parts of the Arboretum and encourage native flora to recover. These programs have grown to become regular parts of the Arboretum's programming and outreach.

⁷ Wilfred B. Shaw, notes from "Advisory Committee on University Arboretum," 1934

In the early 1990s, Helen and Norris Post approached Director Morton with the idea of enhancing and expanding the collection of rhododendron and azaleas in the area known as Heathdale as a memorial to their daughter Julie Norris Post. At the time, Heathdale had become thickly overgrown with common buckthorn, honeysuckle, and Norway maple. Facilitated largely through the generosity of the Posts, teams of staff, student interns, and scores of volunteers helped to remove invasive shrubs and trees from this collection area, rebuild trails, establish seating areas, and plant dozens of rhododendron, azalea, and other species to rebuild this collection of Ericaceous plants. Later, the collection was expanded to include hybrid cultivars of rhododendron and azalea along the Laurel Ridge Trail. The successful rejuvenation of this special collection area within the Arboretum, has led to other efforts such as the recent establishment of the Centennial Shrub Collection near Geddes and the Oak Openings Garden, established in partnership with the Ann Arbor Chapter of the Wild Ones.

In 1994, the Friends of Nichols Arboretum celebrated the blooming of the peony collection with an extravagant “Peony Party” which was repeated annually for many years in early June. The success of those events led to a number of cultural programs connecting the arts with the Arboretum. Programs have included a number of art installations, including “Imagine/Align” by Susan Skarsgard (planting of 10,000 daffodil bulbs in a line across the Arboretum in 2004), the Heathdale Celebration dance performance created by Dance Professor Jessica Fogel and collaboration with Music Professor Michael Gould, a yearly “Poet’s Walk” with English Professors Keith Taylor and Richard Tillinghast, and the ever popular Shakespeare in the Arb productions by Professor Katherine Mendeloff which began in 2000.

The Botanical Garden (at Iroquois site)

The University’s Botanical Garden on Iroquois Street consisted primarily of the greenhouse complex, with a classroom added in 1952, and a series of outdoor gardens. At the time the first greenhouse was constructed in 1916, the site consisted of some 20 acres of level ground. That would later grow to 51.72 acres by the early 1930s and then be reduced to approximately 40 acres with the construction of the South Industrial Highway. Emphasis was on plants grown for research and teaching as well as decorative plants grown for various university functions.

Henry Gleason, who oversaw the first phase of development at the site, noted four main purposes of the greenhouse complex. First, by growing plants for teaching purposes, students were able to learn “botany from the living plant and less ‘from a bottle.’” Secondly, the greenhouses provided space for a rich array of research activities. Third, the greenhouses facilitated the exhibition of economically important or unusual plants that otherwise could not be grown this far north. Included in this group were such plants as coffee, coconut, pineapple, chocolate, ginger, vanilla and others. Finally, the greenhouses afforded the development of a collection of decorative and ornamental plants for use in decorating University buildings on special occasions.⁸ For at least a short time, the greenhouses were also called into active service to grow various commercial drug plants to compensate for shortages during World War I. In 1924, the School of Forestry moved its nurseries to the property and other collections were developed as an outgrowth of faculty research or for special displays, such as the annual chrysanthemum show which had been started at the original Botanical Garden and Arboretum site in 1912.⁹

⁸ Gleason, 1917.

⁹ Harley H. Bartlett, “The Botanical Gardens at the University of Michigan,” *The University of Michigan—an Encyclopedic Survey*, Part III, 1951. Reprinted in *Bartlettia*, 2: 3 (February 1982).

Dr. Harley H. Bartlett joined the University in 1915 and served as Director of the Botanical Garden from 1919 until his retirement in 1955. Bartlett's research work into plant genetics and taxonomy, especially on the genus *Oenothera*, established a strong tradition of research using the Garden facilities. Bartlett also made many trips abroad, especially to Sumatra, the Phillipines, Panama, Mexico, Haiti and elsewhere in South America and Asia, bringing back plants to add to the Botanical Garden collections as well as thousands of specimens for the University of Michigan Herbarium.¹⁰ Frieda Cobb Blanchard, who was among Bartlett's first students to earn a PhD, served as Assistant Director of the Garden. Among other plants studied at the Botanical Gardens were rubber plants, *Petunia* spp. and other *Solanaceae*, forms of ragweed, plums and cherries, wild roses, delphinium, and Chinese chestnuts. A large collection of *Cactaceae* and various succulents came from the Missouri Botanical Gardens and were supplemented by work done by Dr. Elzada Clover and other researchers.¹¹

During World War II, areas on the south and west sides of the Botanical Garden property were made available to faculty and local residents for "victory gardens" for the raising of fruits and vegetables. After the war, the surge in students at the University made the demand for plants in laboratory courses soar, and a small classroom addition was added to the facilities in 1952 to allow courses to be taught on site.

In 1955, Professor A. Geoffrey Norman took over the directorship of the Botanical Garden and began an appraisal of the current facilities and future needs of the Garden. Given the aging and obsolescent facilities and the challenges faced by surrounding development at the Iroquois site, Norman was directed to search for a new possible location for the Botanical Garden, "within reasonable distance of campus." In 1957, Regent Frederick C. Matthaei, Sr. and his wife Mildred Hague Matthaei made a gift of some 200 acres along Fleming Creek as well as a monetary gift that allowed the purchase of the adjacent Matteson Farm on Dixboro Road for the development of what has become Matthaei Botanical Gardens.¹²

Matthaei Botanical Gardens

The 1957 gift of the Matthaei property promised an exciting new future for the University's botanical gardens. Alden B. Dow of Midland, Michigan was hired to design the complex of greenhouses, laboratories, classrooms and offices. At the time, Dow was undoubtedly one of Michigan's most innovative architects and was later named Michigan's Architect Laureate in 1982.¹³ The construction of the complex was phased from 1959-1965. Important features of Dow's design for the complex include the large free-span conservatory, the open auditorium with its large bank of windows overlooking the display gardens, and the five working greenhouses with a work corridor on one end and a public corridor on the other with its array of classrooms, laboratories and offices. A long turquoise-faced band of roof-top planters (now abandoned as planters) provides a sense of unity to the complex and makes it immediately recognizable as an Alden Dow design.

¹⁰ Edward G. Voss, "Harley Harris Bartlett, *Bulletin of the Torrey Botanical Club*, 88:1 (January 1961). Reprinted in *Bartlettia*, 2: 3 (February 1982).

¹¹ Bartlett, 1951; Grace Shackman, "The Botanical Gardens," *Ann Arbor Observed*, Ann Arbor, MI: University of Michigan Press, 2006.

¹² A. Geoffrey Norman, "The Botanical Gardens 1940-1975" *Bartlettia*, 2: 3 (February 1982).

¹³ <http://www.abdow.org/abdow/abdow.htm> (January 14, 2007); for more information about Alden Dow's work in Ann Arbor, see Grace Shackman, "Alden Dow's Ann Arbor," *Ann Arbor Observed*, Ann Arbor, MI: University of Michigan Press, 2006.

Director Geoffrey Norman carefully guided the planning and development of the botanical gardens building complex so that the project did not exceed its original cost estimate of \$1.6 million. Funding came from University sources, a variety of gifts, and from funds realized through the sale of the Iroquois site. Grant funds from a National Science Foundation grant subsidized the auditorium and some of the controlled environmental facilities. Site design for the complex, including the entrance drive, parking and creation of Willow Pond was developed by Edward A. Eichstadt and Carl Johnson of Eichstadt and Grissom Associates of Detroit with planting plans developed by Charles Cares, professor in the Landscape Architecture Program and later Director of Nichols Arboretum. Nature trails were established along Fleming Creek and throughout the property, and many plants were moved from the Iroquois site before it was sold. In 1969, the Regents renamed the property “Matthaei Botanical Gardens,” honoring the generosity and critical role played by Mr. and Mrs. Frederick C. Matthaei, Sr. in its development.¹⁴

In 1962, Dr. Warren H. Wagner, Jr. succeeded Norman as Director and began greatly expanding activity at the Botanical Gardens, taking advantage of the new facilities. The much larger greenhouses, controlled environmental chambers, laboratory spaces, and classrooms provided for a much more active research and teaching program than was possible at the old Iroquois site. The Matthaei Botanical Gardens property itself also provided a diverse array of ecosystems for field study with nearly 1000 species of higher plants documented. Through the University Center for Adult Education (UM Extension Service), the botanical gardens began its now long-standing tradition of lectures and field classes taught by University faculty or graduate student instructors. Among the early offerings were courses such as Spring Flora, Woody Plants, Summer Flora, Orchids, Ferns, and Indoor Gardening. The botanical gardens also became the regular meeting place for environmental and garden-oriented community groups such as the Michigan Natural Areas Council, Michigan Botanical Club, the Herb Study Group, the Huron Valley Chapter of the Audubon Society, the Huron Valley Rose Society, the Ann Arbor Garden Club, the Michigan Chapter of the American Orchid Society, and many others. This tradition is clearly evident today as well.¹⁵

In 1965, Horner Woods, an approximate 23-acre remnant of a much larger high quality woods less than a mile north of the Matthaei Botanical Gardens site, was added as a “Natural Area Preserve” and “Plant Sanctuary” through the combined efforts and generosity of Professor Alex Smith and his wife Helen V. Smith, Russell Pelton, and the Michigan Botanical Club. With the addition of the bordering approximate 10-acre Pelton Tract and the over 60 acres of the McLaughlin farm, the total acreage increased to approximately 96 acres.¹⁶ The purchase of a conservation easement by the City of Ann Arbor’s Greenbelt Commission on the adjacent Goodrich property, bordering Horner Woods to the east, further increases the land under protection and will provide access from Dixboro Road. In 1970, the 258-acre Mud Lake Bog property was also added to Matthaei Botanical Gardens as a second Natural Area Preserve. Then, in 1987, an agreement with the University Athletic Department allowed Matthaei Botanical Gardens to assume management responsibility for Radrick Forest and Radrick Fen, two extremely high quality sites to the south of the main botanical gardens property.

Dr. Erich Steiner and Dr. Helen V. Smith spearheaded efforts to form the “Friends of Matthaei Botanical Gardens,” which was established in 1974. The Friends played a critical role in organizing lectures, workshops, sales, and events that have greatly extended the outreach of the

¹⁴ Norman, 1982.

¹⁵ Norman, 1982.

¹⁶ Sylvia Taylor, “A Recent History of Horner Woods,” unpublished paper 2006

Gardens to the general public. Many of the Friends-sponsored events, such as the popular “Ann Arbor Flower Show,” held annually from 1990 to 1998, provided great visibility for the Gardens and brought in thousands of visitors. Over the years since its founding, the Friends have helped to raise millions of dollars through memberships, annual plant sales, and special fund-raising events such as “Matthaei by Moonlight.”

As visitation increased by school groups and the general public, more specialized gardens and collections were developed, often in collaboration with local garden club organizations. Examples of these include the Woodland Wildflower Garden (now known as the Helen V. Smith Woodland Wildflower Garden), the Rose and Perennial Garden (now simply the Perennial Garden), the Herb Garden (now the Alexandra Hicks Herb Knot Garden), and orchid and bonsai collections. Other gardens developed out of special programs or teaching interests. These include such garden displays as the Range and Field Garden and the Ethnobotanical Trail. Some of these gardens and special exhibits have remained through the present time, while others have been abandoned after their usefulness declined. The “Gateway Garden of New World Plants” with its impressive stone-pillared pavilion was created with support from the University Alumnae Council and the Friends of Matthaei Botanical Gardens and dedicated in 1996. From 1999 to 2004, funding from Ford Motor Company allowed the creation of five demonstration “Gardenscapes” by local landscape architects that included “Deconstructed Landscape” designed by John Hollowell, “Pathways and Vistas” by Mike Abott, “Transitions” by Mark Korzon, and “Urban Pocket Garden” by John Stevens, and “Double Helix” designed by a team of landscape architecture students.

Guiding the development of the botanical gardens over its long history have been a long chain of Directors which have included George P. Burns (1907-1912), Charles H. Otis (1912-1913), Henry A. Gleason (1915-1919), Harley H. Bartlett (1919-1955), A. Geoffrey Norman (1955-1966), Warren H. Wagner (1966-1971), Erich E. Steiner (1971-1977, 1989-1991), William S. Benninghoff (1977-1986), Catherine Bach as Acting Director (1986-1987), Anton A. Reznicek (1987-1989), Patricia Hopkinson as Acting Director (1991-1994), James A. Teeri (1994-2002), and Brian J. Klatt as Interim Director (2002-2004).

Matthaei Botanical Gardens and Nichols Arboretum

Administratively, the Botanical Gardens and Arboretum have had a variety of homes at the University over their histories. The Botanical Garden was an official part of the Botany Department and then the Department of Biology until 1994 when Matthaei Botanical Gardens became an independent unit within the College of Literature Science and Arts under Director James Teeri. Nichols Arboretum was a part of the Department of Landscape Design and then Department of Landscape Architecture until becoming a part of the School of Natural Resources (now the School of Natural Resources and Environment). Under Director Harry Morton, Nichols Arboretum moved in 1997 to report directly to the Provost’s Office as one of the University’s “Public Goods.” In 2003, the University assembled a task force to consider an alliance of Matthaei Botanical Gardens and Nichols Arboretum, and in 2004 the two were merged as one unit within the University, reporting directly to the Provost. Professor Bob Grese, who had been Director of Nichols Arboretum since 1999, was named Director of the combined Matthaei Botanical Gardens and Nichols Arboretum in 2004.

In this our 100th anniversary year, we have set ambitious goals for ourselves, continuing many of the past traditions at Matthaei Botanical Gardens and Nichols Arboretum while looking to how we can make a difference for future generations. We are committed to

- providing connections between the University and the broader public, sharing research and providing learning opportunities,
- using our gardens and natural lands to demonstrate how to protect and manage biological integrity, and
- demonstrating principles of sustainability in our facilities and lands—helping people re-define their own relationship to nature.

As we work to improve our gardens and facilities, we want to create places and offer programs that encourage people to be more sensitive, aware, and engaged in practices of environmentally-sound horticulture and sustainability. Examples include the recent “River Landing” at Nichols Arboretum, the renovations to our Conservatory at Matthaei Botanical Gardens and the various display gardens we will be creating over the next several years.

As the University of Michigan’s botanical garden and arboretum, we know that we can take advantage of the diverse resources of this great university to provide unique learning and research opportunities and to explore interdisciplinary approaches to sustainability and environmental stewardship. At the same time, we want to make sure that our gardens continue to be welcoming places of beauty and respite in our ever urbanizing region. To remind us of this multi-faceted mission, we have adopted the motto: “caring for nature, enriching life.” We hope you’ll join us in these efforts!