Bartram Broadside

Summer 1997

Published by the John Bartram Association for the 'noble & curious friends' of Historic Bartram's Garden, Philadelphia

Preface

John Bartram's pond in the lower portion of Historic Bartram's Garden is perhaps one of the most fascinating, and enigmatic, aspects of Bartram's legacy. The curious have only been able to speculate about where it was, what it looked like and what water-loving plants John may have planted in its depths.

That is until now. We are pleased to present in this issue of the Bartram Broadside the definitive story about the pond. The John Bartram Association (JBA) began its detective work in 1985 with help from the National Park Service, which conducted a below-ground resistivity survey indicating that the base contour of the pond was preserved beneath erosion and fill. The JBA next commissioned Curator of Historic Collections and Bartram expert Joel T. Fry to conduct a comprehensive survey of Bartram correspondence, plant catalogues, and related manuscripts and documents to ferret out all mentions, references and information about the pond. Last summer preliminary archaeological excavation began at the pond site. The JBA plans to use the information gleaned from this extensive research to carefully restore and replant John Bartram's pond. Meanwhile, the ongoing archaeological work is providing an excellent educational opportunity for 11 John Bartram High School student interns employed here this summer, as well as adding a captivating new attraction for visitors to the lower garden.

Much of the credit for the revived interest in the pond must go to former JBA Board Member, the late Ginger Pennypacker, who saw a vast interpretive and visitor-attracting potential in its restoration. She encouraged the JBA to include the pond restoration in its Fourth Century Fund capital and endowment campaign, which will conclude in 1999, the 300th anniversary of John Bartram's birth.

Martha Leigh Wolf, Executive Director

The Pond at Bartram's Garden

Joel T. Fry

A shallow depression near the middle of the lower garden at Historic Bartram's Garden tantalizes 20th century visitors with a hint of a buried 18th century treasure. This slight dip was once the site of the Bartram pond, where many of the most significant plants in the Bartram botanic garden were planted. From Bull Frogs and Water Lilies to the "Egyptian" Lotus and the Venus Flytrap, the collection of plants, fish, amphibians and reptiles in and around the pond was once one of the garden's most unforgettable features. The pond and its collection of aquatic plants were part of the Bartram family garden for over a century, and memory of the pond and water garden continued into the early 20th century. The small body of water was created by impounding a natural spring head. Springs appear in the garden at the transition from piedmont soils to a dense clay subsoil of coastal plain origin. The area was almost certainly wet or swampy, even without human intervention. A pond or spring improvement could have pre-dated John Bartram's purchase of the site as part of a 100 acre plantation in 1728, but it is more likely Bartram constructed the pond himself.

While there are rarely direct mentions of the pond itself, the Bartram correspondence includes many references to wetland and water plants, both observations and collection of plants in the wild, and propagation and shipment of plants from the Bartrams. Plants associated with the pond can be divided into two groups: those growing in water and those growing in wet soil adjacent to the pond. [An important complication for interpreting the



William Bartram's "fine Drawing" of the Colocasia or American Lotus (Nelumbo lutea). This drawing was produced in Philadelphia in the summer or fall of 1767, based on the plants growing at Bartram's Garden. It can be interpreted as a vignette of the plantings in and around the pond.

"I planted a plumb tree some years ago in the moist ground near A spring which hath blossomed & set abundance of fruite..."

planting of the historic garden is that John Bartram and his correspondents frequently write of success with wetland and even aquatic plants in dry soils, most notably the *Sarracenia*.]

Printed catalogues of the Bartram collection are available, beginning in 1783, and by the early 19th century a large and substantial group of plants can be identified as the core of the family collection of North American plants, including water and wetland species. The Bartram family continued to issue plant catalogues into the 1830s and the later lists become quite large. While the earliest broadside *Catalogue* from 1783 includes almost no herbaceous plants and no water plants, it does indicate soil conditions for a number of plants, many of those needing "*A wet sandy Soil on Clay and Gravel*" or "*A good moist mould or Soil on Clay and Gravel*." Many of these were likely situated in the wet clay soil adjacent to the pond.

Water plants appear early in the exchange of letters between John Bartram (1699-1777) and Peter Collinson (1694-1768), and from this fragmentary evidence it can be assumed Bartram was growing and experimenting with water plants. In 1736 Bartram included water plants in a collection of specimens sent to Collinson. These included Nympaea odorata, the American Water-lily, and Sagittaria latifolia, and Sagittaria rigida, two examples of North American Arrowhead. In the summer of the same year Bartram recorded observations on the flowers of Sagittaria and Pontedaria cordata, or Pickerel Weed, in a letter to James Logan (Berkeley and Berkeley 1992: 62). Returning a long list of identifications to Bartram in the spring of 1737, Collinson suggested No. 78, "a Remarkable Water plant (Intirely New) ... be sett by the River or some pond side." Lacking the Bartram family herbarium, it is impossible to now know what this remarkable plant was.

Bartram gives further evidence he was collecting and examining water plants and wetland plants at an early period in his botanic career. In 1740 he observed:

yet I have admired to see trees & some plants which I never observed to grow naturaly any where but in moist swampy mossy [land] & many times in ponds & runs of water; these I have brought out of Jersey Virginia & several places in pensilvania planted in my garden & thay grow much better than in thair place of natural growth (Berkeley and Berkeley 1992: 143). In 1745 Bartram mentioned a spring in his garden. It is likely this spring and moist ground were located in the lower garden, in the vicinity of the pond site.

> I planted a plumb tree some years ago in the moist ground near A spring which hath blossomed & set abundance of fruite (Berkeley and Berkeley 1992: 270).

Bartram observed and collected aquatic fauna as well as plants throughout his career. Turtles, frogs, muskrats, and water insects were described and sent to Collinson and others in Europe. In 1753 Bartram wrote "I have employed my time this spring near Ponds & Rivulets to observe the various notes & tones of our Froggs..." (Berkeley and Berkeley 1992: 346).

While it is likely that the pond dates to the garden's earliest history, conclusive evidence first appears on the 1758 plan of the Garden, "A Draught of John Bartram's House and Garden as it appears from the River." John Bartram's annotation on the plan indicates "A Pond or Springhead convaid underground to the Spring or Milk House." The pond is indicated as a rough oval, with the long axis oriented approximately north-south, in alignment with the house and grid of the garden beds. No plants are suggested in the water itself.

The "Draught" does provides many significant details about the pond and garden layout. The pond is located near the south edge of the beds of the "Lower Kitchen Garden" about halfway to the river. The kitchen garden beds take up at least half of the area of the lower garden, below the terrace wall. An area of grassy vegetation is indicated along the western edge of the pond, not particularly distinct or identifiable. The pond is connected underground with the spring house, located to the north at the northern fence line of the garden. A large tree is drawn at the southwest corner of the spring house, probably the famous Bald Cypress, (Taxodium distichum), that survived until the early 20th century. Lush grassy-leaved plants, including some iris-like flowers, are drawn at the northeast corner of the garden, at riverside. This seems to indicate a wet area, and the same location remains marshy to this day. Faint paths are indicated running the length of the "Lower Kitchen Garden," along the south margin, and along the north fence line. These details provide tangible clues for restoration efforts.

Conclusive evidence for cultivated aquatic plants in the pond appears in the 1760s. Over the course of this decade John Bartram made numerous failed attempts to transport the prized plant he called



"Colocasia" and Collinson usually referred to as "Faba Egyptica" to England. This water plant is now know as the *Nelumbo lutea*, American Lotus or Water Chinquapin. The lotus was first brought to John Bartram's attention around 1750, by Swedish traveler Peter Kalm, who found it in a creek in southern New Jersey. Bartram attempted to transplant the flower to his garden at this time, but apparently failed. He was not successful in propagating the plant until a decade later.

Collinson wrote year after year requesting roots or seeds of the "Colocasia." In 1760 he complained:

Thou art ambitious of plants from Us, but here is the most Charming plant of Asia including China & of Egypt in thy Neighbourhood, & yett so Little is thy Curiosity, or Industry, that thou cannot avail they Self of so great a Curiosity – Thou that hast Springs in thy Garden to make a Pond for its reception – or a River so Close by, if more proper for its Culture... (Berkeley and Berkeley 1992: 479).

Bartram responded to this diatribe in a letter of May 1761:

thee very unjustly reproacheth me for want of curiosity in the article of the colocasia I have made three tryals of it at diferent times twice it miscarried & the last it grows so slow as scarcely to be seen... (Berkeley and Berkeley 1992: 516).

The Nelumbo was growing in John Bartram's garden in the spring of 1761. The plant was finally propagated by seeds, possibly from New Jersey, but more likely collected or sent from the Carolinas in 1760.

Lower garden detail from "A Draught of John Bartram's House and Garden..." This plan of the Bartram family garden was likely drawn by William Bartram in 1758 with annotations by his father. It was sent to Peter Collinson in a letter dated January 28, 1759.

It may have been in flower at the garden by 1764. John Bartram wrote a detailed account of the plant for Collinson [now lost] in the summer or fall of 1767, and William Bartram prepared a drawing of the flower and leaves [see page 1] after his return from Florida, which was also sent to Collinson in London. Collinson replied: "We have no luck with the Colocasia so give it over Billys fine Drawing will supply that Defect" (Berkeley and Berkeley

1992: 688, 694).

Bartram's letters again record the *Nelumbo* in the pond in 1768, but he implies that the plants had first flowered at the garden sometime earlier.

I hope the Colocasia nuts will succeed mine that I sowed the same fall & parcel with thine [never?] came up but I hope to see the leaves above the water next summer those that flowered—by my pond came up the second spring after sowing... (Berkeley and Berkeley 1992: 696).

John Bartram continued writing often about the Colocasia in the latter 1760s. In the summer of 1769 he planned to send live roots to the King for the Royal Garden at Kew. Writing Dr. John Fothergill about his intentions, Bartram gave a suggestion of the size of his own pond.

> My Colocasia now makes A glorious Appearance: I intend to try if I cant assist the King & my friend Fothergill in being Proprietors of it. —it rarely grows by seed I must try to send the roots in A Cask of mud but it must have A pond of water it will grow from two foot to 12 deep in water where thay will soon spread with thair rushy creeping roots 2 or 3 rod square* & the leaves wholy cover the water... (Berkeley and Berkeley 1992: 715).

This suggests a minimum size for the pond in the lower garden. If the *Nelumbo* soon grew to "wholy cover the water," an area of 500 to 800 square feet, this

^{*}The rod is a measure of length, now rarely used, equivalent to 5.5 yards or 16.5 feet. A square rod equals 272.25 square feet.



is the equivalent of an 18 foot diameter circle. Bartram's figures also imply that his pond was at least two feet deep.

In November 1769 John Bartram provided still further description of the Colocasia in his pond for Fothergill.

> I have allso sent A Barrel in which I packed many roots of the Colocasia which my son dug out of my fish pond... I allso put into the Barrel two of our Bull frogs for the King I think thay are male and female thay came into my Milk house well or spring to winter there is numbers of them in my fish pond amongst the Colocasia on whose broad leaves which spreads on the surface of the water thay love to sit to air themselves under other broad leaves that riseth two foot above like A canopy but here thay seldom roar its on the borders of the pond amongst the grass or where thay can rest thair fore feet with thair heads out of water. thay may be heard near or quite half A mile roaring like A bull... (Berkeley and Berkeley 1992: 723-724).

Bartram's account confirms there were frogs in the water as well and provides the last known reference to the spring house in the lower garden. Twice Bartram refers to his "fish pond," which suggests that raising fish for food or pleasure was an important function of the pond.

The later generations of the Bartram family at the garden are poorly documented. With the disruptions caused by the Revolution and the death of John Bartram in 1777, for over a decade there is little to attest to the history of the garden. It is assumed the Bartram children, John Bartram, Jr. (1743-1812) and William Bartram (1739-1823), maintained the layout of the botanic garden much as it had been left by their father, while continuing to introduce new plants to the garden.

On July 14, 1787, Manasseh Cutler visited the Garden, accompanied by members of the Constitutional Convention, and records the first mention of a stream:

...This is a very ancient garden, and the collection is large indeed,... It is finely situated, as it partakes of every kind of soil, has a fine stream of water, and an artificial pond, where he has a good collection of aquatic plants.... (Cutler 1888: 273).

Possibly the outflow of the pond was altered to form an open stream, either leading to the milk house or down to the Schuylkill banks. Cutler was not one to be lavish with praise, so the statement that the pond contained "*a good collection of aquatic plants*" can be taken to mean just that.

A decade later a Polish traveler, Julian Ursyn Niemcewicz also described a stream in the garden – ca. March 1797.

...I came upon Bartram, the traveler and poet. He is a man between 50 and 60, small, spare, with a quick-tempered air. In a red vest and leather breeches, he was digging up the ground.... A little further on his brother was squatting on the bank of a sort of a stream, his hands completely buried in the mud; he was planting something. His manner was not affable; he improved later.... (Niemcewicz 1965: 52).

The second large *Catalogue* of the Bartram collection, published in 1807, contained over a dozen water plants with indications "*grows in lakes and ponds, in rivers, in runs of water, in bogs and ponds, in water near springs,*" etc. Other wetland plants can be determined by the key to soil types which also accompanied the catalogue. It is likely that all the aquatics were under cultivation at the garden, either in the pond, stream, or on the banks of the Schuylkill River.

William Bartram himself left one clue to the pond in a letter to fellow botanist Henry Muhlenberg in September 1810, regarding the "*Prinos nebulosa*, the same that you observed growing near the Fishpond in our Garden." This plant of the Holly family, now know as *llex amelanchier*, was first observed and collected by William in Virginia on his return to Philadelphia from his long travels in 1776 (HSP, Muhlenberg Letters: 137).

In 1821 Robert Carr (1778-1866), husband of Ann Bartram Carr (1779-1858), the third generation of the Bartram family at the garden, advertised "a great variety of GOLD and SILVER FISH" for sale at the botanic garden (*Poulson's American Daily Advertiser*, April 14, 1821). This again confirmed that fish were raised in the pond (or ponds) at the garden. A visitor over a decade later in 1835 noted "several fish ponds, with gold and silver fish and aquatic plants" (Walsh 1836: 21-22). As late as 1839 a guide to the city of Philadelphia noted, "The ground are arranged to favor the growth of aquatic plants by the introduction of pools of water" (Bowen 1839: 80).



Plant collector David Douglas visited the garden in November 1823, following the death of William Bartram. Douglas's journal preserves a brief note on the pond in connection with John Bartram's massive Bald Cypress, which was still thriving:

> At the foot of this [very large Cypress] a small pond in which many little and valuable treasures were; but since the death of the worthy protector, have been suffered to remain in a deplorable state.... On the margin of the pond *Andromeda arborea* fully 40 or 45 feet high, 19 inches round. In summer it has been clothed with flowers, and has now a great abundance of seed: obtained a paper of seed. Soil light, and it seems to like damp, at any rate moisture... *Sagittaria sagittifolia flore pleno,* I recollect being told of it by Mr. Loddiges when I was at Hackney a few days before leaving London. I could not get any of the tubers of the root: otherwise useless....

Douglas confirms the Bartrams still maintained a considerable collection of water plants at the garden although his opinion on their state of cultivation should be taken with some caution.

By the 1830s the Bartrams' prized *Nelumbo lutea*, or American Lotus, was naturalized along the Lower Schuylkill:

...*Cyamus luteus* of Nuttall... The muddy shores of the Schuylkill near Bartram's Botanic Garden, and it is said for nearly two miles along the river, abound with this plant—and which we have been informed was introduced there at a period comparatively recent (Tucker 1835: 402).

Ann and Robert Carr, the last Bartram heirs to the garden, were forced to sell the property in April 1850. The purchaser, Andrew M. Eastwick (1811-1879), maintained an historic and sentimental interest in the garden as a relic of John Bartram. Eastwick hired a young English gardener, Thomas Meehan (1826-1901), who oversaw additions and alterations to the historic garden, and to the landscaping surrounding the new Eastwick house "Bartram Hall." Meehan also compiled a catalogue of the mature trees in the Bartram garden, published in 1853 as The American Handbook of Ornamental Trees. From Meehan's book dates a general misconception that Bartram's Garden was primarily an arboretum or collection of trees. While trees were an important part of the collection, and in the last days of the Bartram family occupation may have come to

dominate the landscape, the garden, through its active history, was a true botanic garden specializing in the entire variety of known North American plants.

In the 1850s and 1860s historical reminiscences and descriptions of the garden began to appear with a few mentions of the pond and water garden plants. The large Bald Cypress became the major attraction at the garden and most accounts include a mention of it. In 1855, John Jay Smith, editor of *The Horticulturist*, added a note to an article on some of the ancient trees at the garden, and implied that the pond had dried up.

The great Cypress at Bartram's has been our admiration since boyhood; it stood when we first remember it, near a fine spring of water, but it seems to have appropriated the whole to itself, the spring having disappeared... ("M" 1855: 374).

Robert Carr contributed several letters on the *Nelumbo* or American Lotus to Thomas Meehan's new periodical, *The Gardener's Monthly*, in 1861 and 1862. Carr as a very old man remained one of the few living links to the Bartram family garden and its collection of plants. Since the Lotus had become naturalized, it was a summer attraction in the marshy creeks of south Philadelphia, in the Schuylkill near The Woodlands, and in southern New Jersey. It was generally accepted that these naturalized colonies were descendants of a number of intentional plantings by John Bartram (Carr 1861, 1862, Anonymous 1861). Carr cited a now missing letter of John Bartram to his brother William in North Carolina that indicated the first Lotus plants at the garden were sent from North Carolina

Andrew Eastwick died February 8, 1879, and for over a decade the future of the Bartram house and garden remained uncertain. Attempts were made to buy the site to preserve its historic collection of plants and buildings. At the same time, much of the surrounding area was being subdivided for row houses, cut by railroads, or turned to industrial use, especially petro-chemical plants, and a strong effort for preservation was necessary to save the garden. In 1882 Meehan was elected to the Common Council of Philadelphia. He began a campaign for the city to acquire Bartram's Garden as a new small park. On March 13, 1891, the city took over the Bartram house and an 11-acre tract including most of the historic garden [and the site of the pond]. The park was enlarged in 1897 by 16.2 acres to the south, including the site of Eastwick's "Bartram Hall," which was damaged by fire in 1896 and soon razed.



The Bartram site was neglected from the time of Eastwick's death in 1879 until 1896. The garden became overgrown-trees and shrubs died-and others were stolen. A notable article on the garden thought to be by Howard Pyle appeared in *Harper's Monthly Magazine* in 1880 and described the site at length, including the cypress and the old pond.

As the tree stands, it impresses one with a sense of great antiquity. All the surroundings add to this feeling; the green and stagnant pool at its base... ([Pyle] 1880: 325–326).

Even after the City of Philadelphia took possession of the Bartram site, little happened for a number of years. In 1896 money was first appropriated for repairs and restoration. John M. Macfarlane, Professor of Botany at the University of Pennsylvania, and in charge of the University Botanic Garden, was assigned the job of supervising initial repairs and mentions the pond in his written plans:

My aim will be, if I continue, to supervise matters, to restore the place as a historic Bartram Botanic Garden... to restore all the plants (herbaceous and otherwise) that were grown by Bartram,... to restore the old walks, the old lake in which Bartram grew his yellow lotus, etc.... (Macfarlane to Mira L. Dock, March 5, 1896 / JBA Collections).

At the same time, a John Bartram Association petition to the Bureau of City Property, makes note of the pond:

...We should like to have walks restored, the terrace wall in from of house repaired, the trees properly labelled, the pond restored near the foot of cypress tree, and which is important for its growth and health.... (John Bartram Association to Chief of the Bureau of Public Property, March 25, 1896 / Phila. City Archives).

In a time of urban corruption, city appropriations for the Bartram Park often failed to materialize, and monies if available were rarely well spent. Macfarlane and others struggled almost a decade to raise interest and funds for the Bartram site with little result. Still, repairing and replanting the pond remained a major goal of all the early plans to restore the garden. It was clearly felt to be one of the most significant features of the historic garden, at a time when there were still people alive who remembered the Carr-Bartram garden of the 1830s and 1840s. Early plans for restoring the garden were based on the memories of several Bartram descendants who had been often at the grounds while children. A tracing of a map of the garden by William Middleton Bartram (1839–1916), a great-great-grandson of John Bartram, shows two "Lilly Ponds" at the same area of John Bartram's "Pond or Springhead." The rectangular ponds, approximately 16 x 30 feet, appear at right angles to one another. A stream leads from the northern pond, following a natural drainage course northeast to the Schuylkill River. This map is likely an accurate portrayal of the garden ca. 1840–1850.

As attempts to raise funds to restore the garden failed in the early 20th century, the site took on the simplified landscape and maintenance regime of a typical "City Park." Newspaper accounts in the first two decades of the 20th century stress the desolation and decay at the site. The pond is described as a stagnant pool. In 1915 an article in the *Public Ledger* reported:

...The old lily pond has been filled up, but recently a shallow excavation has been made in that vicinity, presumably only to breed mosquitoes, for no lillies have been put in, and none could be kept in it... (June 28, 1915).

By the early 1920s the state of the Bartram house and garden reached such depths that control of the park was transferred from the Bureau of Public Property to the Fairmount Park Commission. Effort was focused on restoring the house for the 1926 Sesquicentennial Celebration in Philadelphia. A large scale replanting of trees and shrubs was competed in 1931 for the bicentennial of the botanic garden (Baxter 1931). However, there was no attempt to restore the pond as part of the 1930s work, and in fact the remaining pond depression was probably filled at this time.

The pond in the lower garden at Historic Bartram's Garden has had a long history. It was probably constructed with John Bartram's own hands soon after he purchased the garden site in 1728, and was certainly present by 1758. In the 1760s Bartram's "Colocasia" made "A glorious Apearance" in the pond. The second generation of Bartrams, John Bartram, Jr. and William Bartram, maintained and expanded their father's botanic garden, and may have made changes to the pond and water plantings after the Revolution. Visitors suggest an open stream lead from the pond down to the river. Ann Bartram Carr and her husband Robert Carr continued the Bartram



family tradition from 1813 to 1850. With their aging Uncle William Bartram, the Carrs' maintained the diversity of plants in the botanic garden. The pond may have been enlarged or divided into several impoundments in the early 19th century.

When the garden was sold by the last Bartram heirs in 1850 the pond was probably already neglected, possibly even drained. References to this area of the garden after this date are limited to the large Bald Cypress. The adjacent pond, a small stagnant pool, was probably wet only part of the year, with no evidence of plantings. The memory of John Bartram's American Lotuses lived on though, and early 20th century attempts to revive the garden included plans to restore and replant the pond. Big city corruption and an age of differing priorities resulted in little or no restoration. Although unintentional, the neglect of the pond for more than a century has helped preserve the historic location as a useful archaeological site.

References

Anonymous

1861 "The Nelumbium Luteum, or Yellow Egyptian Lotus," *The Gardener's Monthly*, vol. 3, no. 1 (October), p. 310.

Bartram, William

- 1783 Catalogue of American Trees, Shrubs, and Herbacious Plants.... [Philadelphia].
- 1807 A Catalogue of Trees and Shrubs and Herbaceous Plants, Indigenous to the United States of America; Cultivated and Disposed of By John Bartram & Son, at Their Botanical Garden, Kingsess, near Philadelphia. Bartram and Reynolds, Philadelphia.
- 1968 William Bartram Botanical and Zoological Drawings, 1756-1788. Edited and annotated by Joseph Ewan. American Philosophical Society, Philadelphia.

Baxter, Samuel N.

1931 "Restoration of Plants in Bartram's Garden by the Fairmount Park Commission of Philadelphia." *Bartonia*, Supplement to no. 12 (Dec. 31), p. 38-50

Berkeley, Edmund and Dorothy Smith Berkeley

1992 The Correspondence of John Bartram 1734-1777. UniversityPress of Florida, Gainesville.

Bowen, Daniel

1839 *A* History of Philadelphia with a Notice of Villages in the Vicinity.... Daniel Bowen, Philadelphia.

Carr, Robert

- 1828 Periodical Catalogue of Fruit and Ornamental Trees and Shrubs, Greenhouse Plants, &c. Cultivated and For Sale at Bartram's Botanic Garden, Kingsessing. Russell and Martien, Philadelphia, reprinted with additions 1830.
- 1831 Periodical Catalogue of American Trees, Shrubs, Plants, and Seeds, Cultivated and for Sale at the Bartram Botanic Garden, Near Philadelphia. : Russell & Martien, Philadelphia.
- 1836 Periodical Catalogue of Fruit and Ornamental Trees and Shrubs, Green-House Plants, &c, Cultivated and For Sale at the Bartram Botanic Garden, Kingsessing.... William S. Martien, Philadelphia.

- 1861 "History of the Nelumbium, Near Philadelphia." *The Gardener's Monthly*, vol. 3, no. 12, (December), p. 364.
- 1862 "History of the Nelumbium Luteum," *The Gardener's Monthly*, vol. 4, no. 2 (February), p. 43.

Cutler, Manasseh

1888 Life, Journals, and Correspondence of Rev. Manasseh Cutler, LLD., by His Grandchildren. Edited by William Parker Cutler and Julia Perkins Cutler. 2 vols. Robert Clarke & Co., Cincinnati.

Douglas, David

1914 *Journal Kept By David Douglas During His Travels in* North America 1823-1827. Royal Hort. Soc. London.

"M"

1855 "Arboricultural Notes. – No. II, Bartram's Garden, Philadelphia." The Horticulturist, vol. 10 [N. S. 6], p. 374.

Meehan, Thomas

1853 *The American Handbook of Ornamental Trees.* Lippincott, Grambo, & Co, Philadelphia.

Niemcewicz, Julian Ursyn

- 1965 Under their Vine and Fig Tree: Travels through America in 1797-1799, 1805 with some further account of Life in NJ. Trans. and ed. by Metchie J. E. Budka, vol. 14, collections of the NJ Historical Society, Elizabeth, NJ.
- [Pyle, Howard ?]
- 1880 "Bartram and His Garden," Harper's New Monthly Magazine, vol. 60, no. 357 (February), p. 325–326.

Smith, John Jay

1892 Recollections of John Jay Smith Written by Himself. Edited by his daughter, Elizabeth P. Smith. Privately Printed, J. B. Lippincott, Philadelphia.

Tucker, Luther

1835 "Editor's Note," *The Genesee Farmer*, vol. 5, no. 51 (December 19), p. 402.

Walsh, A.

1836 Untitled, *The Genesee Farmer*, vol. 6, no. 3 (January 16), p. 21-22.

Some Water Plants from Bartram's Garden 1736-1807:

Callitriche heterophylla, Water Starwort Chrysosplenium americanum, Water-Mat, Golden-Saxifrage Lemna minor, Common Duckweed Nelumbo lutea, American Lotus, Water Chinquapin Nuphar advena, Common Spatterdock, Cow-Lily Nymphaea odorata, Fragrant Water-Lily Orontium aquaticum, Golden-Club Pontederia cordata, Pickerel-weed Potamogeton spp., Pondweed Sagittaria latifolia, Arrowhead Sagittaria rigida, Arrowhead Sagittaria sagittifolia, European Arrowhead Vallisneria americana, Wild Celery, Water Celery



Fourth Century Fund Pond Donors

In 1995, the John Bartram Association established the Fourth Century Fund, a \$1.975 million capital and endowment campaign to ensure the future of Historic Bartram's Garden. One of the projects supported by the Fourth Century Fund is work in the Lower Garden, including restoration of John Bartram's pond. The following donors have made gifts specifically for this project in memory of Virginia B. Pennypacker:

Beverly Alexandre, Ann Aspinwall, Roberta Bickford, Martha Billings, Betty Cummin, Marian G. Dixon, Foerder Foundation, Dorothy Freeman, Dorothy Gilbert, Sarah Jarvis, Louise Ledwith, Joyce Lewis, Elizabeth Lindsay, Mary McAdoo, Elizabeth McLean, Frances Markle, Kitty Muckle, The Planters, Emilie Riley, Mary Snyder, Despina Soppas, Margaret Tilghman, Nancy Walker, Dixie Wigton

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Bartram Broadside is edited by Joel T. Fry, Curator of Historical Collections, Historic Bartram's Garden. Ideas and contributions on the Bartram connections to exploration, horticulture, botany, and other natural sciences are



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