

## **Historic Bartram's Garden**

### **Grant awarded 2000**

#### **Mission**

##### **Summarize the applicant organization's mission.**

The Mission of the John Bartram Association is to preserve and develop Historic Bartram's Garden as a museum and public garden, fostering environmental awareness through education and outreach.

##### **What is the function of the property, site, and/or historic landscape in relation to the organization's mission?**

Historic Bartram's Garden serves as a museum with five principal collections interpreted to the public, a garden recognized as the oldest botanical garden in North America, and educational center for children and adults, and a community resource that fosters environmental awareness.

##### **How is the mission communicated to Board, staff and volunteers?**

Through staff training programs, public/educational programs, publications, and long-range planning deliberations the John Bartram Association continually communicates its mission.

##### **Describe the site's architectural, historical and cultural significance.**

The John Bartram House at Historic Bartram's Garden was the home of the renowned Quaker botanist, John Bartram (1699-1777). A National Historic Landmark since 1960, the Bartram House has twenty rooms. John Bartram transformed a modest Swedish farmhouse into an impressive two and a half-story stone building of his own eccentric design. Constructed mainly of Wissahickon gneiss, John Bartram quarried and carved the stone on the house. The house is famous for its high-style Georgian east façade with a columned portico, elaborately carved window surrounds, and inscription. It is significant as the center of John Bartram's botanical and environmental work, which made him America's most renowned naturalist of the 18<sup>th</sup> century and earned him the appointment of "Royal Botanist" by King George III.

##### **Describe the historical landscape.**

Historic Bartram's Garden is located on 46 acres situated on the lower Schuylkill River in one of Philadelphia's most industrial districts. The site preserves John Bartram's original botanical garden, his house, and principal outbuildings, including the oldest extant greenhouse in America. The Garden also features a 17-acre meadow developed on a former brownfield, a 1.5 acre fresh water tidal wetland, and recreational amenities like a picnic pavilion, little league field, rowing dock, and play ground.

##### **Describe the organization's collections. What percentage of the collection has direct provenance to the site?**

Historic Bartram's Garden holds five collections that together convey the rich history of the site and contribute to present-day research and interpretations: 1) historic buildings (house, barn, coach house, seedhouse complex, and stable; 2) living collections (12 acre garden featuring native plants, some directly descended from the 18<sup>th</sup> century garden; 3) decorative arts (approximately 500 pieces exhibited on two floors of the house; 4) archaeological artifacts including 25,000 items from digs at the site; and 5) special library collections including rare

books and archival materials. With the exception of the decorative arts collection, which is presented to the public as typical middling furnishings of the Philadelphia area, more than 90% of the collections are directly related to the site.

### **Audience**

#### **Describe the organization's constituent groups and audiences.**

With the Bartram legacy appealing to so many constituencies—serious horticulturists, backyard gardeners, historians, environmentalists, birders, artists, Quakers, educators, and children—Historic Bartram's Garden's audience is inherently broad and diverse. The audience begins with Philadelphians enamored with their hometown botanic treasure, widens to include ardent fans up and down the East Coast where the Bartrams journeyed on plant expeditions, and ultimately encompasses friends and members from every state and many foreign countries. Among the Garden's most devoted audiences are the residents of Southwest Philadelphia who value the site as a safe green space in an otherwise economically and environmentally distressed area.

### **Project Description**

#### **1) Give a brief history of the applicant organization. Describe recent programs and activities.**

Founded by John Bartram in 1731, America's oldest living botanical garden—Historic Bartram's Garden—is located on the west bank of the Schuylkill River in one of Philadelphia's most industrialized districts. Following John Bartram's death in 1777, the property remained in the Bartram family and was operated as a commercial nursery until 1850. The next owner, Andrew Eastwick, is credited with saving the site from development by the industrial forces that had begun to dominate the lower Schuylkill. In 1891, the Bartram house and garden were acquired by the City of Philadelphia as a public park. Two years later, descendants of John Bartram organized the John Bartram Association to work in cooperation with the City on the site's preservation. The Association incorporated in 1907 and opened its membership to all individuals. The Association operated on a volunteer basis until 1981 when it funded its first director and opened full-time. Since then, the Association has assembled a professional staff of 12, developed model educational programs, and completed two major fund raising campaigns that have raised more than \$3 million for restoration projects and endowment.

Historic Bartram's Garden functions today as a museum, public garden, informal outdoor learning laboratory for Philadelphia school students, and a valued green space for a deserving urban community. More than 30,000 visitors tour the site annually, coming for educational programs, special events and passive recreation. As an organization committed to preserving this National Historic Landmark, the Association is a careful steward of the Garden's historic buildings, its living, library, and decorative arts collections, and its archaeological resources.

#### **2) Describe the project for which the organization is applying. Explain why the project is the next logical step in the organization's strategic plan, carrying out its mission, and achieving its goals.**

The proposed project, the exterior conservation treatment of the John Bartram House, is based upon a comprehensive conservation study undertaken over a 24-month period by an interdisciplinary team of consultants. Team members completed specific analyses related to

their areas of expertise, e.g., masonry, pests, architectural finishes, general architecture, and internal environment. The study investigated how the Bartram House and its particular components were deteriorating and recommended how the problems should be treated with the least disturbance or damage to the original materials and without creating new problems in other areas. The conclusions of the various component analyses were synthesized into a set of overall recommendations and organized into a conservation work plan. The philosophy behind the conservation program for the house derives from the *Secretary of the Interior's Standards for Treatment of Historic Properties*, the guidelines of which require retention of the greatest amount of historic fabric, along with the building's historic form, features, and detailing as they have evolved over time. The goal of the exterior conservation work is to provide the John Bartram House with a sound building envelope for long-term preservation. When this has been established the John Bartram Association will be in a strong position to implement recommendations for interior conservation work and develop an expanded interpretive plan.

### 1) Site Work/Waterproofing

The study demonstrated that the Bartram House is clearly affected by excessive moisture in the exterior stone walls, which has contributed to the deterioration of exterior stone masonry and an excessively damp cellar environment. The proven rising damp conditions are also causing deterioration of the interior perimeter plaster wall finishes. The excessive cellar moisture has impacted first floor wood framing members and provided optimal conditions for insect infestation. Causes of moisture problems in the basement and rising damp in the walls were determined to derive primarily from 1) surface grading and geology of the soil, 2) roof drainage system, and 3) foundation plantings. To reduce levels of moisture in the house the immediate perimeter must be regarded to direct water away from the structure, a foundation waterproofing and perimeter drainage system installed, window wells reconstructed, and foundation plantings removed. Work will consist of:

- Hand excavation in presence of archaeologist for new foundation drainage system
- Trenching for underground foundation drainage system
- Drainage fill course under sub-slabs and slabs on grade, under paving and elsewhere as indicated
- Foundation drainage system, including piping, soils, and filter fabric
- Erosion and sedimentation control
- Restoration of existing brick paving following trenching
- Finish grading
- Rubberized asphalt sheet foundation wall waterproofing
- Foundation wall insulation (supporting backfill)

Key members of the Bartram staff (education, horticulture, history, director), the board's landscape advisor committee, and the volunteers who currently maintain the landscape plantings will review the study's landscape removal recommendations and develop a plan of action. Joel T. Fry, Bartram archaeologist, will be on site to supervise the archaeological work. He will conduct several preliminary investigations prior to full-scale trenching.

### 2) Masonry/Stone Cleaning and Restoration

Exterior masonry conservation issues include deterioration of the exterior stone and brick masonry through granular disintegration, cracking, spalling, and flaking; atmospheric and

biological soiling; localized areas of bird guano; paint spatters; metallic stain; and the inappropriate pointing and stucco applications. Wet conditions at the basement and first floor levels combined with the presence of hard Portland cement have accelerated the deterioration.

Work will consist of:

- Micro-abrasive cleaning of pointed stonework to restore the stone façade from gray/black to original light gray with streaks of tan and pink flecked with mica. The Façade Gromange system was tested as the most effective and least damaging method of cleaning.
- Repair of cracks in stone masonry units using epoxy injection
- Composite mortar patching of stone masonry units
- Dutchman repairs to deteriorated stone masonry units
- Stone consolidation of masonry units
- Stone unit and spot brick replacement
- Stone repointing using mortar matching the color, texture and strength of the original mortar following hand removal of existing Portland cement-rich pointing that is causing deterioration of historic gneiss masonry and detracting from historic character of the building.

### 3) Restoration Carpentry

Portions of the cornice of the summer kitchen and window well covers exhibit rot. The present roof was determined to be sound for at least the next five years. Work will consist of:

- Removal of deteriorated portion of existing cornice and construction of new replicate cornice assembly, blended into remaining portion of existing cornice.
- Removal of other deteriorated wood components and construction of new replicate components
- Replication of window well covers
- Concealed preservation pressure treated blocking and furring required for support of parts of the woodwork

### 4) Doors and Windows

Problems with the existing windows and doors encompass areas of deterioration and damage, security issues, weatherproofing, and high ultraviolet and visible light penetration. Work will consist of:

- Custom exterior door with clear laminated safety glass for installation in existing frame
- Window security panels using clear laminated (with ultraviolet filtering polyvinyl buteral) safety glass panels with polished edges
- Metal glazing channels for support of interior glazed security panels
- Repairs to existing wood sashes, sash components and frame components where existing are missing, broken, or severely deteriorated
- New glass and putty glazing to replace existing broken panes and at new sashes
- Weatherstripping of all existing window sashes

### 5) Cement/Lime Plaster Restoration

Limited areas of the three sides of the house that feature cement/lime plaster (stucco) are severely deteriorated and other areas were inappropriately replastered in the 1970s using a Portland cement-rich plaster mix that does not match the contiguous historic stucco. Repairs

include removal of severely deteriorated and non-historic cement/lime plaster and application of new cement/lime plaster matching the color, texture, and strength of the historic finish. Work will consist of:

- Removal of areas of non-matching Portland cement plaster and application of new parge pointing
- Repair of areas of existing parge pointing
- Parging of foundation walls in preparation for installation of waterproof membrane

#### 6) Exterior Painting

The present exterior paint dating from the early 1990s is a non-historic color, is poorly and inconsistently applied, and is peeling and flaking in areas where there is excessive moisture.

Work will consist of:

- Preparation and painting of all existing painted exterior surfaces
- Back priming of all new wood components before installation
- Preparation and painting of all new replicate exterior building components

Exterior conservation treatment is the next logical step for the Bartram House, the centerpiece of Historic Bartram's Garden. It follows 24 months of comprehensive study by expert consultants with significant input from board and staff. The interdisciplinary nature of the study resulted in a work program that has been carefully considered from all angles and clearly documents problems that should be addressed immediately and in the long term. The Association has decided not to act on the recommendations for the interior, including a major long-term repair—a new heating and air conditioning system—until after the building envelope has been improved, staff has moved out, and new data has been gathered from continued environmental monitoring.

This project also adheres to the John Bartram Association's Strategic Plan (2000-2003) that places the Bartram House as the museum's conservation priority. No other component of the collections has received as much preparatory study or suffered as much wear and tear by the elements, visitors, and staff. The pending relocation of the staff occupying the third floor of the house to a new administrative complex along the Garden's entrance drive also argues for undertaking the project in the near future. The Association is presently working with a consultant on an improved interpretive program for the house that will help inform future interior work to be undertaken, such as plaster and paint restoration. In sum, the exterior conservation work will put the Bartram House in a safe and stable condition for years to come and better suited for expended interpretation to the general public.

### **3) Describe how the project assist the organization in implementing the Tri-State Coalition's *Best Standards and Practices for Historic Site Administration*. Which standard or practice does the project specifically address? How does the project holistically address the needs of the organization? How will the organization use the *Best Standards and Practices* to evaluate the success of the project?**

Exterior conservation work on the Bartram House helps the John Bartram Association fulfill its mission of preservation (to "preserve and develop Historic Bartram's Garden as a museum..."); demonstrate its commitment to the standards for documentation; meet the standard for garnering

adequate financial resources for long term capital needs; and meet the standard for stewardship of “preserving its collection in a manner that reflects the organization’s awareness or the significance of its resources and their long-term preservation needs.” The Bartram House is the site’s key historical resource and its preservation will demonstrate to the Fairmount Park Commission, board, staff, and visitors that the Association is fulfilling its basic responsibility of stewardship. With conservation work completed the Association will be in a strong position to implement expanded interpretation of the house that will include information about its architectural history and on-going care.

#### **4) Cite any plans, studies, or assessments documenting the need for this project.**

In 1997, with support from the Getty Grant Program, Institute of Museum and Library Services, and Pennsylvania Historical and Museum Commission, the John Bartram Association initiated a comprehensive conservation study to address long-term preservation concerns of the Bartram House. Copies of key elements of the study are included with this application.

The comprehensive conservation study built upon earlier planning efforts, among them a historic structures report (1978), architectural work by John Dickey (1970s), a 1991 environmental assessment by the Philadelphia Museum of Art, archeological investigations (1980s-90s) by Joel T. Fry, soil survey (1998), and papers by University of Pennsylvania preservation graduate students on rising damp (1995) and water damage (1992) in the Bartram House.

#### **5) Describe how the applicant organization will use the *Best Standards and Practices* to evaluate the project’s process and outcome.**

In accordance with the best standards and practices the Association will maintain complete records of conservation treatment in its Special Collections Library; communicate the results of the conservation treatment in its scholarly newsletter (the *Bartram Broadside*), through PSAs, and over its web site; integrate the results of the project in its Master Site and Conservation Plans; maintain images of the project in its archives; interpret the conservation treatment to its audiences; and seek audience input through a visitors survey. A key means of evaluation will be whether adherence to a cyclical maintenance plan following conservation treatment prolongs the building’s basic health.

#### **Project Staff**

**Explain the staffing requirements needed for the project. Briefly describe the experience and qualifications of the project staff and consultants. If any permanent staff members will be involved in the project, explain how their routine responsibilities will be carried out during the course of the project. Who will carry them out?**

Qualified contractors working under the direction of a supervising architectural consultant will carry out this project. The contractors must adhere to the project specifications included with this application. The architect will solicit bids, select contractors in consultation with Historic Bartram’s Garden’s Executive director, and oversee all work. Bartram’s executive director will handle all financial and reporting duties, a role she regularly assumes in all of the Garden’s grant supported undertakings.

Dale Frens, AIA—Architectural Consultant. Mr. Frens is a principal in the architectural firm of Frens and Frens, which has worked extensively throughout the Delaware Valley. He is knowledgeable about the region's building tradition, historical collections, and many house museums. He has conducted conservation surveys and developed restoration plans and specifications for numerous projects, among them the outbuildings at Historic Bartram's Garden in the 1990s.

Martha Leigh Wolf—Executive Director. Ms. Wolf has served as executive director of Historic Bartram's Garden since 1988. During her tenure she has led the successful \$2.2 million Fourth Century Fund capital and endowment campaign, led the planning for the Bartram Educational Center and John Bowman Bartram Special Collections Library, and established a model community outreach program. She previously worked for 11 years at the Brandywine Conservancy as historic preservation specialist where she co-authored *Protecting Historic Properties*.

### **Community Support**

**Describe the current outreach efforts of the applicant organization. Describe how the organization solicited input on the interests and concerns of the community regarding the project. Describe the impact the project will have on the community.**

**Level II Applicants: Describe which of the organization's constituencies will be affected. Include projected numbers of people affected and explain how these numbers were estimated. Cite any feasibility or marketing studies that were conducted as part of project planning. Document community and constituency input regarding the project.**

Historic Bartram's Garden has made significant progress in developing and communicating the Bartram environmental legacy to over 30,000 annual visitors to the site. For adult audiences, the Garden provides monthly lectures on subjects in history and horticulture, off-site tours to destinations with Bartram connections, annual native plant and holiday greens sales, and a general interpretive "house and garden" tour by trained costumed guides. In May 1999, Historic Bartram's Garden attracted family audiences with its first-ever "living history festival," as part of the Bartram 300 anniversary celebration. For two days, the Garden was peopled by historical characters interpreting aspects of John Bartram's life and the colonial world in which he lived. A tall ship, musical entertainment, craft demonstrations and sale, and historical theater added additional interest and excitement. The event was heavily promoted, received rave reviews, and was attended by approximately 5,000 children and adults—the largest event in the Garden's history. The festival was preceded by the dedication of a Bartram U.S. commemorative stamp and a three-day international symposium ("Bartram 300: A Gathering") featuring David McCullough as the keynote speaker and 15 scholarly papers on Bartram and his legacy.

While the Garden attracts many national and international visitors, the John Bartram Association maintains its strongest commitment to the children and youth of Philadelphia and surrounding counties. The Association has developed excellent and compelling year-round educational programs for students, for which it has received broad recognition. Of the 12,000 students who participate in Bartram's educational programs annually, approximately 75% are minority

students from Philadelphia. The completion of the Bartram Educational Center in 1999 is enabling the Garden to substantially increase its student enrollment. In addition to formal lessons, Historic Bartram's Garden invites children to join the "Puc Puggy Club" a free membership program for "kids who love natures," that currently has more than 450 members.

Historic Bartram's Garden's outreach efforts have been commended by The Pew Charitable Trusts Cultural Leadership Program as a model of how museums can reach out and work with their communities. The Association places a particular emphasis on programming for children in the Garden's immediate neighborhood of Southwest Philadelphia and maintains a close working relationship with the residents of Bartram Village, the adjoining public housing development. The Bartram Village Tenant Coalition is represented on the John Bartram Association Board of Directors. Specific activities include:

- Paid six-week summer internships for 8-10 John Bartram High School students
- Assistance with community and school yard gardens (Bartram Village, Woodland Child Care and Development Academy, Bartram Communications Academy, Greenfield School)
- Sponsorship of the Southwest Environmental Network, a roundtable of civic groups that monitors environmental activities in the area and which is currently protesting the siting of a new trash facility
- Service on the Sunoco Community Advisory Panel
- Undertaking the "Kinsessing Project," a community self study, in cooperation with the Southwest Community Enrichment Center
- Free use of Garden facilities for community meetings and special events
- Assistance to *JustRow!*, a new rowing program for minority students based at Historic Bartram's Garden

The comprehensive conservation study was undertaken in 1997 at the urging of staff, board and the visiting public who were concerned about noticeable problems with the Bartram House: an insect infestation that opened a hole in a window sill, moisture seepage, exfoliating plaster, erratic changes in temperature and humidity, the lack of UV filtering, and the soiled façade. As the numbers and activities of staff in the building increased in recent years along with public visitation, the Bartram House has been put under increasing stress.

Exterior conservation treatment of the Bartram House will be appreciated by all of Historic Bartram's Garden's constituencies as it will preserve the site's most significant historic artifact. More than 30,000 adults and children visit the site annually, most of who include a tour of the house in their visit. The Bartram House and botanical garden are a source of pride to the residents of Southwest Philadelphia, not only for their historical significance but also for the level of civic care they demonstrate. In 1999, the John Bartram Association undertook a membership survey, which revealed the primary reason behind member support is not membership privileges, but rather preservation of the Bartram site.

The garden receives requests for information and photographs of the house on a weekly basis from local, national, and international garden writers, historians, and other interested parties. The Association will capitalize on the public's fascination with the house and concern for its care

by developing news releases, soliciting feature stories in newspapers and periodicals, and featuring the conservation work as the subject of one or more of Bartram's monthly lectures.

**Project Budget**

**Historic Bartram's Garden**

<u>Line Item</u>	<u>Category</u>	<u>HIP Funds</u>	<u>Matching Funds</u>	<u>Total</u>
<b>Personnel</b>	Project Director			
	Architect Consultant	4,693	4,694	9,387
	Contractors	93,867	93,868	187,735
<b>Supplies and Materials</b>				
<b>Equipment</b>				
<b>Total</b>		98,560	98,562	197,122