

# Making Room for the Living at Laurel Hill Cemetery



## VOLUME II: RECOMMENDATIONS



Graduate Program in Historic Preservation  
University of Pennsylvania  
Fall 2007 Studio



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SHARE Food Programs of Philadelphia  
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# TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY</b>	<b>6</b>
<b>RECOMMENDATIONS</b>	<b>9</b>
POLICY AREAS	10
Resource Management	11
Visitor Experience	11
Continued Economic Viability	11
Public Relations and Image	12
STRATEGIES AND ACTIONS	12
Resource Management	12
Visitor Experience	14
Continued Economic Viability	16
Public Relations and Image	16
<b>SUPPORTING PROJECTS</b>	<b>18</b>
RESOURCE MANAGEMENT	19
Strategic Conservation Plan	
Enhancing the Arboretum	
Clarifying the Visual Character of Laurel Hill	
The Fences of Laurel Hill	
VISITOR EXPERIENCE	20
Preliminary Interpretive Exhibit	
Reuse of the Receiving Vault	
Occupant/Tomb History Database	
ECONOMIC VIABILITY	20
Finding Funding Through Membership Programs	
Re-developing 3801-21 Ridge Avenue	
PUBLIC RELATIONS AND IMAGE	21
Creating a Compelling Image for Potential Visitors	
Reconnecting to the Riverfront: An analysis of the Schuylkill River Heritage Area	





## EXECUTIVE SUMMARY



The primary goals of this planning effort are to protect and support the historical, artistic, and environmental values of the internationally significant site, and subsequently to increase awareness, visitation, and financial support of the site. Laurel Hill's physical status as an island of the Victorian Era is to be maintained; at the same time the cemetery should be integrated socially and culturally into the immediately-surrounding neighborhoods and broader Philadelphia community.

A revised and formal set of management priorities for physical, interpretive, and economic improvements will enable Laurel Hill Cemetery to retain its significance and viability as an historic site for future generations.

Management of the physical resources of the cemetery—markers, tombs, and grounds—is paramount, and a systematic maintenance plan will be instrumental in this process. Treatment of the current deteriorated conditions of markers is necessary, and priorities are to be based on the significance of the markers and their relative degree of threat. In terms of ongoing maintenance, the priorities are to increase the efficiency and extent of maintenance activities, and to reinforce historically significant qualities of Laurel Hill by reinstating historic plants, viewsheds, and fencing.

New policies in the area of visitor experience are intended to develop a consistent and comprehensive interpretation of the cemetery which is effectively communicated to visitors, and instate visitor amenities to ensure adequate visitor comfort levels. Suggested improvements in interpretation include, at the highest priority, creation of an accurate cemetery map and an interpretive pamphlet guide, which would be readily available at all entrances. Permanent interpretive exhibits and signage should be sited at important locations throughout the cemetery, and improved tours and educational programming should be developed, along with a greater degree of tour regularity. Visitor comfort would be greatly enhanced by directional signage, facilities such as washrooms, and improved security.

Continued economic viability will be achieved by developing new and creative fundraising operations as well as profit-generating resources that will finance a sustainable level of operations, maintenance, and conservation. The membership program, partnerships with other sites, property development, a capital campaign, restructuring of endowments, gifting



Central Laurel Hill in winter. Photo by T. Aphale 2007.

opportunities, and partnerships with local community groups are key areas to look into for economic improvement.

Finally, Laurel Hill's public image and connections should also be developed in order to continue and enhance its currency, visitation, and support, and the public understanding of its historic and present value. A cohesive and accurate message of significance and identity is to be created through marketing, programming, internet representation, and signage and other materials. Partnerships with other institutions and improved physical access and signage will also be key in the site's representation, and positive community relations will be an important asset for the future viability of Laurel Hill Cemetery.





## RECOMMENDATIONS

*POLICY AREAS*

Policy recommendations in four areas have been created to serve as a basis for Laurel Hill Cemetery’s future conservation and development. These four areas—Resource Management, Visitor Experience, Continued Economic Viability, and Public Image and Relations—are not discrete, but overlap in important ways. As illustrated in the accompanying diagram, Resource Management constitutes the primary area of concern, while the interaction of the other three policy areas constitutes the supportive components. For example, interpretation improvements may positively affect image building and encourage new partnerships, thereby contributing to the longevity of Laurel Hill. Taken together, policies addressing these areas aim to protect and promote the historical, artistic, and environmental values of the nationally significant Laurel Hill Cemetery, and subsequently to increase awareness, visitation, and financial support of the site. Ultimately, these policies are intended to maintain Laurel Hill’s physical status as an island of the Victorian Era, while integrating Laurel Hill socially and culturally into the broader Philadelphia community.



### **I. RESOURCE MANAGEMENT**

Create and implement a strategic conservation and maintenance plan for markers, tombs and grounds.

Having acknowledged that the history, aesthetics, and environment of Laurel Hill Cemetery represent its key values, the policy of highest priority should be that which addresses the maintenance of the historical record and physical integrity of its stone markers and landscaping. The feasibility of caring for the entire property becomes a challenge as a result of the vast size of the cemetery, quantity of monuments within it, and limited amount of funds. Therefore a maintenance plan for the markers, tombs, and grounds needs to be implemented strategically.

Landscape maintenance is as much about sound ecological management as about protecting historic resources. All landscape issues should strengthen both the environmental and cultural value of Laurel Hill Cemetery. The historic qualities of the cemetery's landscape may be only selectively restored however, as arboretum plantings may be maintained relatively easily; the introduction of high-maintenance shrubs or annuals is beyond management and financial capability.

### **II. VISITOR EXPERIENCE**

Develop and realize a consistent and comprehensive interpretation of the cemetery which is effectively communicated to visitors, and instate visitor amenities to ensure adequate visitor comfort levels.

#### **A. Interpretation**

Laurel Hill Cemetery has the potential to serve society as a multifaceted educational resource, by conveying to the public its historic, artistic, and environmental values. The cemetery is more than a collection of monuments constituting an underground museum, as Laurel Hill brands itself currently. It should also be regarded as an historic park, a 78-acre artwork, and a natural area. It is therefore essential that interpretive and educational materials and programs address all of these values. In addition, as the site continues its transition from an active cemetery into a cultural heritage site, it is crucial that the cemetery communicates this information effectively to visitors. Furthermore, a consistent and comprehensive interpretation of the cemetery will possess the ability to draw visitors, particularly returning ones.

The goal is that each visitor develops a general yet comprehensive understanding of all aspects of the site, regardless of duration, timing, motivation, or areas covered in the Laurel Hill visit.

#### **B. Visitor Comfort**

This policy seeks to improve site access, signage, and visitor amenities. The proposed plan suggests a sequence which features a preliminary review of the entire site in order to determine which areas would be best served by greater access, visitor amenities, and possibly enhanced security features, in addition to the scope and level of signage required. Then, a logical sequence for the implementation and addition of these features throughout the site may be determined, followed by the continued monitoring for maintenance and efficacy of new additions.

### **III. CONTINUED ECONOMIC VIABILITY**

Develop new and creative fundraising operations as well as profit-generating resources that will finance a sustainable level of operations, maintenance, and conservation.

As a result of the changing use of the grounds from active burial to cultural heritage site, it is necessary to find new and dependable means of funding to support resource management and initiatives addressing the other policy areas. The immediate goal is to generate unrestricted income to directly finance particular strategies in addition to contributing to the overall operating budget, and ideally, endowment.

#### **IV. PUBLIC RELATIONS AND IMAGE**

Build public awareness about Laurel Hill a local cultural heritage destination and not a traditional cemetery.

While created to function as a cemetery, Laurel Hill Cemetery no longer has the space or the land to continue to operate as a thriving burial place, instead needing to rely on its intrinsic cultural, historic, and environmental values to ensure its future. Laurel Hill must therefore position and market itself to the tourist and culture heritage enthusiast as a destination rich with Philadelphia history, funerary art and architecture, and pastoral environs. At the local level, a lack of general awareness about the location and importance of the site, combined with current public perceptions regarding the surrounding neighborhoods, are potentially harmful to Laurel Hill's image and its ability to attract a local audience. The Urban Mourning project is an example of current outreach to the community that is gaining ground however. Meanwhile, the greatest obstacle to visitation from out-of-towners is a poor level of awareness, which is made more difficult by the cemetery's distance from Center City Philadelphia.

Re-branding itself as a viable historic locale—a museum and a park—equal in stature and prestige to the many other landmarks found within Philadelphia, Laurel Hill may bolster its economic future and remain a relevant and inviting cultural heritage destination to tourist and citizen alike.

Vital to the importance of the sustainability of Laurel Hill, is the need to bring in and attract visitors whose will support the cemetery. Establishing the cemetery as a cultural heritage destination will ensure visitation by those interested in its preservation. Priority should be placed on communicating a coherent message about Laurel Hill's value as a cultural heritage site and landscape to visitors to the cemetery, the city, and those passing by.

#### *STRATEGIES AND ACTIONS*

Strategies and actions are divided into timed categories. Immediate actions should be accomplished within six months. Intermediate actions should be undertaken and completed within two years. Long term actions should take no longer than five years to complete. With the conservation and maintenance of markers and tombs, the actions are based not on time, but on the accumulation of criteria.

#### **I. RESOURCE MANAGEMENT**

Strategic Conservation and Maintenance Plan for Markers, Tombs and Grounds

An appropriate approach to determine which areas receive maintenance and treatment begins with survey and assessment to determine which areas exhibit a high level of significance and/or threatening

deterioration mechanisms. This identification and subsequent classification of areas into levels of maintenance priority ultimately is to be followed by treatment and the long-term actions of monitoring and re-assessment.

### **A. Stone & Materials Conservation**

The decision as to which monuments receive conservation treatments will be determined by the level of overlap of four criteria: historical significance, artistic significance, locational significance/visibility, and severity of deterioration mechanisms affecting markers.

1. Markers associated with a high level of historical significance; these would likely include: figures associated with the creation of Laurel Hill Cemetery, important/notable Philadelphians, and people/groups of national importance (i.e. those associated with the Civil War, political/ economic/ social/ cultural movements, etc.).
2. Markers associated with a high level of artistic significance; these would likely include: markers that feature sculptural elements and exhibit exquisite craftsmanship.
3. Markers associated with a high level of locational significance/ visibility, prioritized in the following order:
  - a. Areas directly adjacent to entrances; access into the cemetery is limited to the gatehouse on Ridge Avenue and to the recently re-opened entrance along Hunting Park Avenue. In the event that visitors do not fully explore the cemetery, these areas will be the source of their first and only impression of the site, and will contribute to their decision of whether or not to make future visits.
  - b. Areas along tour routes; since most tours are designed to highlight the historically and/or artistically significant markers, there will be clear overlap among these three criteria.
  - c. Areas along regularly-used pathways; these popular/ intuitive pathways have been illuminated through urban morphology study. Furthermore, they are reflective of the original design intent of the cemetery.
4. Markers associated with a high level of deterioration; since markers of this type encompass relatively large areas of the cemetery, the selection of which are to be the subject of conservation efforts is determined by whether or not the markers exist within areas of overlapping historical, artistic, and locational significance. Within these sections of overlapping significance, markers to receive attention will be determined by the severity of deterioration mechanisms present. From highest to lowest priority:
  - a. Conditions leading to decreased structural integrity and potential failure; this category includes monuments that are at risk of collapsing and possibly causing damage to one or more of the following: other markers, trees and shrubs, miscellaneous cemetery and personal property, and/or visitors.
  - b. Conditions leading to loss of fabric but not constituting a structural threat; this category includes markers exhibiting bio-growth, efflorescence, metallic staining, and erosion.

### **B. Grounds and Landscaping Maintenance**

Areas to receive landscape maintenance should be determined by the following criteria: the impact upon the ecological and environmental values of the site, the obstruction of historic viewsheds and vistas, the condition of contemporary viewsheds and vistas, the extent/severity of invasive plant species, and

## RECOMMENDATIONS

the appropriateness of and ability to introduce new plantings. As previously stated, the size of the site presents challenges, which include the limited availability of funds. Therefore, the specific actions taken and methods used should begin with the most cost-effective means of accomplishing a substantial amount of work.

### *Immediate:*

1. Reduce frequency of grass mowing. This is a passive way of attempting to limit the amount of weed growth, which also lowers the amount of required lawn maintenance so that financial/human resources and time can be allocated elsewhere.
2. Improve current maintenance of landscape elements. This would involve regularly-scheduled trimming and maintenance of trees and shrubs, and the removal of invasive species and diseased/dying specimens.

### *Intermediate:*

3. Reinstate elements of the native and historic landscape. This would involve re-seeding for native grass species and reinstating historical ground covers that would require less maintenance. An ultimate goal is to introduce plantings listed in early historic guidebooks in areas where their presence would be appropriate and compatible, such as areas left vacant by the removal of dead and dying large trees.

### *Long Term:*

4. Reveal historic viewsheds. This would involve regularly-scheduled trimming and maintenance of trees and shrubs, followed by the removal of invasive species and diseased/dying specimens, and ultimately the introduction of plantings listed in early historic guidebooks.
5. Reinstate appropriate fencing. Explore historically-appropriate fencing possibilities for the perimeter wall that would replace the current chain link fencing and barbed wire. Install the chosen fencing beginning in strategic areas as determined by viewsheds and vistas recorded in the urban morphology. Finally, continue fence installation in remaining areas, directed by necessity and availability of funds.

## II. VISITOR EXPERIENCE

### **A. Interpretation**

The following are the necessary components for a revised interpretation plan for the cemetery.

### *Immediate:*

1. Create an accurate map of the cemetery. The current map needs to be revised to show major streets outside the cemetery, location of entrances, and existing pathways within the cemetery. In addition, selective points of interest within the site should be labeled, including, but not limited to: markers of particular historic significance, notable historic and contemporary views, and visitor amenities.
2. Incorporate standardized introduction talking points outlining the general history of Laurel Hill Cemetery in existing tours. This would ensure that all tour participants receive a general background of the site, and a better context for each of the tours.

## RECOMMENDATIONS

3. Develop an interpretive pamphlet guide. This is intended to complement the map, and offer a concise history, evolution, and overview of the current state of the cemetery addressing all topics: the rural cemetery movement, the creation of Laurel Hill and monuments within it, the cemetery's role in Victorian society, evolution of the site, relationship to the surrounding neighborhoods, and environmental benefits.

4. Make site maps/pamphlets accessible. Visitor maps and interpretive pamphlets should be readily available at all entrances.

### *Intermediate:*

5. Develop interpretive exhibit/panels. A permanent, interpretive exhibit should be developed for placement within the gatehouse. In addition, larger permanent maps and interpretive signage should be installed at the entrances, as well as near the bridge entry to South Laurel Hill.

6. Increase regularity of guided tours and tour topics. Currently Laurel Hill offers guided tours on one to three weekends a month, with most topics covered only once or twice a year. Changing the paradigm from a series of special events to a regular schedule of tours and tour subjects would help ensure predictability for visitors. In addition, an increase in the regularity of tours offered has the potential to increase overall visitation, while subsequently increasing revenue.

7. Develop self-guided tours. While the guided tours currently offered emphasize the varied strengths of the site, additional tours, both guided and self-directed, should be developed to highlight new topics. In addition, a selection of self-guided tours will provide visitors the opportunity to personalize their experience of the site. Developing and maintaining a broad selection of interpretive programs will appeal to a wider audience, which will then help to increase overall visitation.

8. Strengthen and increase availability of educational programming. To address the educational mission of Laurel Hill, programming with school groups and other youth organizations should be enhanced and promoted to local and regional organizations. This will also help build awareness of Laurel Hill as an historic cultural resource, as referenced in the Image policy.

9. Develop additional programming. This would include activities not directly related to the cemetery, but that take advantage of the site. Institution of a bike rental program for example could promote the use of Laurel Hill as a recreational site.

## **B. Visitor Comfort**

Strategies for increasing visitor comfort include:

### *Immediate:*

1. Develop and then install signage. This will allow for the orientation and direction of visitors inside and outside the site.

### *Intermediate:*

2. Evaluate current visitor amenities and install additional ones if necessary. This could include the placement of additional washroom facilities either at the gatehouse or in South Laurel Hill if the entrance there was opened. Continually monitor and maintain all visitor facilities.



3. Consider the installation of security features. This would include the assessment of increased security monitoring, particularly in the event of additional entrance points. This would be followed with continued monitoring and re-assessment.

### III. CONTINUED ECONOMIC VIABILITY

The following are potential financial resources to investigate. Further development and implementation of these plans will depend on their level of feasibility and availability of staff and resources.

#### *Immediate:*

1. Bolster the membership program. While the current membership program contributes funding, it is possible to re-structure and re-work membership so as to increase revenue.
2. Partner with other heritage sites, tourist attractions and recreations sites. There is the potential through partnership to develop a symbiotic relationship that will help to increase visitation and revenue, through joint advertising, tours, and programming.

#### *Intermediate:*

3. Develop revenue-generating uses for currently owned vacant properties. Several potential uses for the recently acquired industrial property across from the gatehouse should be considered to determine the highest and best economic use that is feasible. In addition, potential revenue-generating resources may be considered as options for the adaptive reuse of the receiving vault.
4. Investigate possibility of restructuring existing endowments. Much of the financial resources available to Laurel Hill are currently tied to specific markers or monuments that do not require significant capital improvements as they have been well-maintained. The legal options for releasing unnecessary or unused monies from endowment funds for improvements to the cemetery as a whole may be possible and should be thoroughly investigated.

#### *Long Term:*

5. Develop a large-scale capital campaign to help build the general endowment. This may require a substantial initial investment of resources, but has the potential to benefit the cemetery in the long-term by providing an unrestricted, reliable financial source for operating and administrative expenses.
6. Strengthen and promote gifting opportunities. Programs should be developed and promoted to directly address and finance certain needs within the areas of landscape, signage, and visitor amenities. Financial support for these tangible gifts should cover not only the cost of the amenity, but also any administrative or additional costs associated with its installation and future maintenance.
7. Partner with local community groups. Symbiotic relationships should be developed focusing upon the exchange of services. This has the added potential of also increasing visitation.

### IV. PUBLIC RELATIONS AND IMAGE

## RECOMMENDATIONS

### *Immediate:*

1. Create a coherent and representative message. This would entail creating unified marketing materials, interpretative programming, web presence, and signage. Laurel Hill's message should reflect the cultural, historic, and environmental values that define the site. The current branding of the site as an "underground museum" does not reflect the multiple layers of interest of the site, many of which occur above ground. While re-branding of the site is a necessary step toward the development of a cultural heritage destination, it is important to ensure that the message is coherent with the essential qualities and features of the site.

### *Intermediate:*

2. Partner with other historic and cultural institutions found in Philadelphia. Through strategic partnerships, knowledge of Laurel Hill can be disseminated to the myriad of tourists who flock to Philadelphia specifically for its role in the history of colonial and post-colonial America, a group upon which Laurel Hill may better capture and capitalize.

3. Improve public access to the site. Located in a little-visited section of Philadelphia, Laurel Hill should seek to partner with tour companies, public transit, and other modes of transportation to better allow potential visitors to visit the site without the need of having access to an automobile.

4. Continue to improve signage leading to the cemetery. Nestled away along the banks of the Schuylkill River, finding Laurel Hill can be a daunting task when attempting to access the site from Kelly Drive. Signage in the neighborhoods of East Falls and Strawberry Mansion should be improved to allow potential visitors to locate Laurel Hill Cemetery with ease.

### *Long Term:*

5. Continue to seek out positive partnerships within the neighborhoods directly adjacent to the cemetery. Long-term sustainability of the site would benefit from a strong relationship with the surrounding neighborhoods. Making Laurel Hill relevant to the local community may create an environment where those communities are invested in the cemetery. The Urban Mourning Project is a good example of Laurel Hill leveraging its core historic values as the basis for contemporary partnership-building within its immediate environs and other Philadelphia neighborhoods. While recognizing the importance such relationships may play in the long-term future of the cemetery, the local community is not likely to meet the immediate financial needs of the cemetery. Stabilizing the current financial situation therefore should take precedent over further outreach into the community.



## SUPPORTING PROJECTS

To further aid Laurel Hill in implementing these recommendations, a number of supporting projects aim to address the immediate and intermediate strategies and actions. These supporting projects fall into all four categories identified during policy development. Below is a summary of each project, followed by the complete projects.

**RESOURCE MANAGEMENT**

*Strategic Conservation Plan*

The establishment of a Strategic Conservation Plan addresses the immediate policy actions of identification and evaluation of priority areas for conservation treatments, which set the stage for the intermediate and long term actions of implementation of conservation efforts and their monitoring for efficacy. Priority areas are determined upon the overlap of areas of historic, aesthetic, and locational significance, as well as severity of deterioration mechanisms.

*Enhancing the Arboretum*

If Laurel Hill is to reinvent itself as a cultural asset, it should address its landscape issues that can enhance understanding and enjoyment of the place. Using historic research, this project aims to create a plan for how Laurel Hill should address tree planting with an eye towards moderate cost, low maintenance, and historically accurate solutions. The recommendations will be prioritized within the larger framework of the policies determined by the Laurel Hill studio group.

*Clarifying the Visual Character of Laurel Hill*

This project centers around clarifying the visual character of Laurel Hill by attempting to draw out the path system. This effort flows out of the policy regarding the reinstatement of the historic landscape while at the same time affecting visitor experience. Watercolor sketches are employed to visualize the solution.

*The Fences of Laurel Hill*

Laurel Hill’s fences need to be transparent as well as apparent, protecting the cemetery’s material resources, giving visitors a sense of safety as they circulate through it, while not impeding viewsheds or interfering unnecessarily with the overall visitor experience. The fencing analyzed to determine its current state of effectiveness as a protective barrier, how it fulfills the need for transparency and apparency and how that currently fits into the cemetery’s historical, cultural and educational mission. Options for replacing certain sections



*Strategic Conservation Plan*



*Clarifying the Visual Character of Laurel Hill*



*Enhancing the Arboretum*

of fence that are historically inappropriate are examined.

## VISITOR EXPERIENCE

### *Preliminary Interpretive Exhibit*

Consisting of a series of three posters that coordinate with the graphic chronology, the interpretive exhibit provides a way to introduce visitors to the Cemetery and the values that contribute to its historic, aesthetic and ecological significance; in addition they can form a basis from which to develop a more in-depth exhibit. In the interim between now and the creation of that larger exhibit in the coming years, it is intended that these panels be installed on site, presumably in the gatehouse office.

### *Reuse of the Receiving Vault*

Built in 1913, the Receiving Vault stored the bodies of the dead during the winter months, waiting for the ground to thaw so as to be buried in their purchased lots. However, with the new technology, and the transformation of the site from active graveyard to cultural site, the original purpose of the Receiving Vault is no longer warranted. This project entails an examination of how the Receiving Vault can be reused to help improve the visitor experience within Laurel Hill Cemetery.

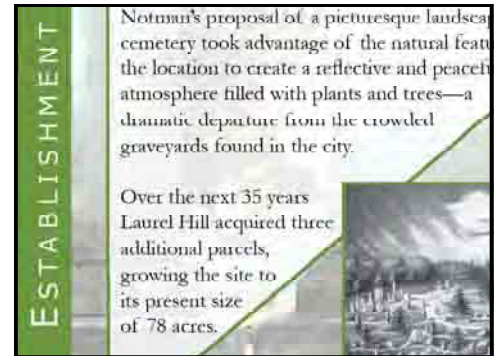
### *Occupant/Tomb History Database*

The Occupant/Tomb History Database project serves as a prototype, demonstrating the kind of information that might be captured and disseminated by an electronic interpretation system. The aim of a fully functional system would be to provide easy visitor access to accurate interpretive information that is customizable to personal interests without a dependence upon Laurel Hill staff. The prototype completed here includes sample data entry and reporting functionality.

## ECONOMIC VIABILITY

### *Finding Funding Through Membership Programs*

In order for Laurel Hill Cemetery to achieve its goal of becoming a fully functional cultural heritage site, it is necessary to become financially viable through this use. A source of unrestricted funding is needed and bolstering the current membership program could be a reliable and lucrative source for such funds. This project explores incentives and methods that can be used to reach this goal.



*Preliminary Interpretive Exhibit*



*Reuse of the Receiving Vault*



*Occupant/Tomb History Database*



*Re-developing 3801-21 Ridge Avenue*

The industrial property located across the street from the gatehouse was originally purchased by the Laurel Hill Cemetery Company with the intent of creating an interpretive center. This supporting project is an investigation into possible alternative re-development ideas that could better address several policy areas. Through a combination of mixed use occupants it may be possible for Laurel Hill to put into action recommendations such as: a revenue generating resource to help fund general operating costs, augment the visitor experience through additional non-interpretive programming, and improve public image and relations with the surrounding community by contributing to economic development and revitalization of the adjacent neighborhoods.

**PUBLIC RELATIONS AND IMAGE**

*Creating a Compelling Image for Potential Visitors*

It is essential that Laurel Hill creates a public image which will attract potential visitors of different ages and from various background. A survey among University of Pennsylvania students shed light on how to combine all of its advantages, and a brochure demonstrates the recommended public image.

*Reconnecting to the Riverfront*

This project looks into the strategic plans of the Schuylkill River Heritage Area and analyzes their implementation throughout the region. Analysis of the heritage area and the participating sites informs a set of recommendations in order to help the cemetery maximize the effectiveness of the heritage area's benefits. The project aims to ease the reconnection to the Schuylkill through analyzing other sites' and communities' riverfront plans and projects.



*Finding Funding Through Membership Programs*



*Re-developing 3801-21 Ridge Avenue*



*Reconnecting to the Riverfront*



# URGENCY V. SIGNIFICANCE

## A STRATEGIC CONSERVATION PLAN FOR COMPETING VALUES



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December 2007



## **INTRODUCTION**

One may consider an ideal monument conservation plan to champion the maximum retention of historic fabric. Such a plan could call for conservation efforts to be focused upon the most quickly decaying monuments, or instead upon the most historically significant monuments. Difficulty in prioritizing monuments is further complicated when a conservation plan is constrained by issues like time, manpower, expertise, and financial resources. Such is the situation surrounding conservation planning and implementation efforts at Laurel Hill Cemetery.

The conservation planning team strove to balance the array of issues by generating a Strategic Conservation Plan that is both effective and achievable. Implementation of this plan will guide Laurel Hill in leveraging its resources to ensure the longevity of its monuments.

## **METHODOLOGY**

- Survey of entire cemetery for areas of significance
- Creation of CAD overlay
- Identification of priority areas
- Survey/evaluation of priority areas
- Analysis of data to determine markers needing treatment

The proposed Strategic Conservation Plan addresses the policy on resource management. This plan tackles the immediate policy actions of identification and evaluation of priority areas for conservation, and thereby sets the stage for the intermediate and long-term actions of implementation of conservation efforts and their monitoring for efficacy.

Priority areas in which to concentrate conservation efforts were determined by the extent of overlapping types of significance, specifically historical, aesthetic, and locational significance. The areas of significance were recorded in the field on top of a Google Earth map, and then translated into CAD overlays of the Google Earth image. In order to model how prioritizing could further focus the conservation efforts, the next step in the process was to survey three of the priority areas of overlapping significance in order to determine those monuments needing immediate stabilization. The survey observations were recorded on a field survey table (see Appendix A). Review of the data highlighted those monuments needing conservation efforts.

## **CONSERVATION STRATEGY**

The Strategic Conservation Plan first considers the significance of monuments *collectively* to make the most of the managing organization's

limited resources. After areas of historical, aesthetic, and locational significance are determined (see below for explanation), areas of overlapped significance may be noted, and survey at the individual monument-level may begin. The overall aim of the approach thereby balances maximum retention of historic fabric with the less tangible merits of each monument in need of conservation.

At the monument-level, a monument's merit may be graded according to five criteria. Points are assigned accordingly. The following characteristics represent the pressures of urgency and significance to create a financially-responsible plan of action:

- 1) *Historical significance.* Although this Strategic Conservation Plan aims to address monuments collectively, this criterion primarily is applicable to the individual monuments that have been determined historically significant in the Guide to the Famous and Blameless in Laurel Hill Cemetery. As such, the significance of a monument noted as "historical" relies upon its relationship to a notable historical figure or an important historical movement.<sup>3</sup> (Grading: 0=no historical significance, to 3=great historical significance).
- 2) *Aesthetic significance.* This type of significance acknowledges the contribution of a collection of monuments to the aesthetic appeal of Laurel Hill as a whole. This area of significance is somewhat subjective; to counter this subjectivity, it is recommended that areas consisting primarily of plain headstones and slabs be considered less aesthetically significant than those monuments featuring ornamentation and/or sculptural elements. (Grading: 0=does not contribute to the aesthetic appeal of the site, to 3=crucial to the site's aesthetic significance.)
- 3) *Locational significance.* The visibility of a monument or area to visitors, donors, and passers-by also elevates conservation importance. In addition to a monument's location, its profile also contributes to its visibility. (Grading: 0=not visible from main visitor vantage points, to 3=high visibility.)
- 4) *Severity of deterioration.* The extent of loss of historic fabric deserves consideration in ranking conservation priority. (Grading: 0=protected or pristine condition, no apparent loss or deterioration, to 3=significant loss.)
- 5) *Potential for further deterioration.* It is important to consider whether deterioration processes are active and therefore require immediate attention. (Grading: 0=no active deterioration, 3=highly active deterioration, imminent structural failure.)

These five characteristics are considered for each monument in the identified priority areas, and contribute to the urgency ranking conservation

attention. Individual monuments with higher total scores should be addressed first, while maintenance for monuments with lower scores may be deferred.

## APPLICATION OF THE PLAN

To illustrate this more specific application of monument ranking, our team chose a representative area in each of Laurel Hill’s divisions—north, central, and south—with significant overlap of visibility, aesthetic value, and historical significance (see Appendix C). Team members surveyed each of these three areas for deterioration severity and potential.

### NORTH

North Laurel Hill includes the gatehouse and the oldest part of the cemetery grounds. The significance map shows the overlap of high visibility and aesthetic value in the central area known as the Shrubbery. It also includes a number of historically significant members. For these reasons, the Shrubbery was chosen to illustrate the proposed conservation strategy.

The terrain on which the Shrubbery rests is generally flat, with an approximately 5-foot drop at its edge to the gatehouse and road. A few tall trees dot the area, though only one or two rest within the floret layout of the Shrubbery. The ground is otherwise covered in the short grass found throughout the cemetery. (See photo at right.)

The monuments of the Shrubbery area are varied but do not include any mausoleums. Vertical markers include both headstones and sculpture. Horizontally-oriented markers are less numerous but include plaques and sarcophagi.

All of the monuments surveyed were either marble or granite, so conditions followed from the susceptibilities of those materials. Horizontally-oriented markers of either material, however, could be especially susceptible to destabilization.



In total, seventeen monuments in and around the Shrubbery were surveyed. Totaling the scores for each monument found a range of total scores from 1 to 11.5 and an average of 6.15. Four of the seventeen monuments had scores of 8 or above. These monuments, in order from most critical to least are: Evans (score: 11.5, section: A, lot: 1), Struthers (score: 10, section: Shrubbery, lot: 2), unknown column with statuary (score: 10, section: Shrubbery, lot: 25), and Davis vault (score: 9, section: Shrubbery, lot: 31).

#### CENTRAL

Section K, home to Millionaire’s Row (see picture below), is situated in central Laurel Hill, just off the road that leads to south Laurel Hill. This area holds decorative monuments dedicated to prominent Philadelphians. Overlooking the Schuylkill River, the location provides one of the best views out of Laurel Hill Cemetery. The terraces of Section K also offer views of south and central Laurel Hill. All of these characteristics—of historic significance, visibility, and aesthetic charm—give the area priority for conservation.

Central Laurel Hill contains many types of monuments, ranging from headstones, ledgers, and sarcophagi, to columns, obelisks, and mausoleums; these monuments are generally of marble, sandstone, or granite. In general,





markers in Section K do not show severe deterioration conditions; the conditions, like surface deposits, friability, and loss, are largely localized and minor in severity. Only a few of the monuments exhibit loss due to weathering, major cracking, or mineral inclusion. As marble is susceptible to deterioration, marble monuments tend to show more surface deposits, different types of loss, and cracking. Granite markers however are mostly intact, only sometimes exhibiting cracking or detachment.

Some of the columns and obelisks are showing the very beginning of structural failure, as they show minor dislocation at the base, but they are not at immediate risk. Some of the mausoleums in Millionaire's Row, mostly built of marble, are showing various deterioration mechanisms.

Of more than 300 monuments in Section K, 25 representative markers were surveyed. Most of the monuments scored 5-7, indicating the relative stability of the monuments relative to the other sections. Some of the markers in Section K in most critical condition are the Fest mausoleum (Lot 134-135), a sarcophagus with a lion statue in the Patterson lot, and the Bensom mausoleum.

#### SOUTH

Sited on the brow of a prominent rise in the cemetery landscape, Section 10 offers exquisite views of much of south Laurel Hill, central Laurel Hill, and the Schuylkill River. In the same way that the topography draws visitors, the artistry of several monuments and the historical figures buried here capture the visitors' attention.<sup>1</sup>

The monuments surveyed ranged from vertically-oriented, to horizontally-situated, to built-in mausoleums. Headstones, ledgers, obelisks, and various sculptural elements were chiefly encountered. Marble, granite, sandstone, and even cast iron serve as featured materials. All types of deterioration mechanisms were encountered.

The monuments that warrant immediate conservation attention include those with total scores of 8 and above. Sixteen monuments of the seventy-two surveyed fall into this category. Those noted as "shaky" or "fallen" that possess the potential to harm nearby monuments warrant attention as well, even if their numerical ranking total is lower than 8.

- Monuments with high visibility, historical significance, and aesthetic importance that also exhibit eminent structural failure should be immediately stabilized. These monuments include: the Ackley sculpture (Lot 198); the Mary Bush Hassinger cross (Lot 204); and the William Henry Larned marker (Lot 202).



- Several significant mausoleums also are worthy of immediate attention because of partial and eminent loss of architectural elements. The mausoleums requiring intervention include: the cast iron South mausoleum (Lot 46); the sandstone Polis mausoleum (Lot 47); the marble McAlester mausoleum (Lot 45); the sandstone Borroughs mausoleum (Lot 41); the marble Brolasky mausoleum (Lot 82); and the sandstone mausoleum in Lot 49.
- Some monuments have already fallen and only need documentation and/or recovery. These include the Fisler markers (Lot 190); Matilda Borda headstone (Lot 188); and Jane Dallas headstone (Lot 188).

## **CONCLUSION**

About 100,000 people are estimated to be buried at Laurel Hill. This has made for an astonishing number of markers that need to be maintained, in spite of the disappearance of some into the earth over the years. The

proposed conservation plan addresses the daunting task of ranking all of these monuments for maintenance.

The sample survey of marker conditions was conducted in only three small areas of Laurel Hill Cemetery with over-lapping locational, aesthetic, and historic significance. Though these surveys clearly are not exhaustive, they serve as examples of how future surveys can determine conservation priority. It is recommended that the rest of Section 10, Section K, and the Shrubbery be surveyed to more fully understand and anticipate the types of conservation efforts required to stabilize these areas.

More extensive assessment of these areas can also determine the deterioration mechanisms present. Only then can treatment options be considered. For example, those markers exhibiting extensive loss should be assessed more closely to determine what, if any, intervention may be pursued. At the very least, the markers should be photo-documented for archival purposes. These types of markers of concern include the McCreary marble headstones (Section 10, Lot 84); the largely already illegible Hassinger marker (Section 10, Lot 203); and the Matilda Larned marble headstone (Section 10, Lot 202).

The National Park Service recently created a survey form at the lot level. This survey recorded landscape features that may potentially impact marker stability, as well as the number of upright, leaning, toppled, and missing monuments. Further, the survey documented the conditions of major monuments six feet or higher and whether they posed a threat to nearby markers. It is recommended that the NPS survey form or one like it be considered complementary to the conservation plan laid out in this report, in that if sizable monuments are identified in significant areas, their stability be monitored.<sup>2</sup>

It is hoped that the materials accompanying this report will aid in the application of this conservation plan. Appended are the field survey form (Appendix A) and the map overlaid with visibility, aesthetic value, and historical significance (Appendix B), which may be used to identify future areas for concerted survey and conservation attention.

Laurel Hill has an astonishing inventory of monuments. With the strategic intervention of conservation resources, this inventory will benefit many future generations of visitors.



## ENDNOTES

<sup>1</sup> The aesthetically pleasing monuments include: the McCreary marble obelisk (Lot 84) and the surrounding McCreary ornamented marble headstones; the Lewis marble cradles (Lot 83); the Adamson marble obelisk (Lot 208); the Catherwood granite sculpture; the Larned marble sarcophagus (Lot 202); the Ackley marble sculpture (Lot 198); and the row of mausoleums of various materials (Lots 41, 45-49, and 82). The historical figures buried in the surveyed portion of Section 10 and nearby include: former Philadelphia Mayors Hilary Baker (1764-1798; Lot 28), William Stokley (1823-1902; Lot 132), and John Reyburn (1845-1914; Lot 136); Congressman Georg Deardorff McCreary (1846-1915; Lot 84); Lt. Benjamin Hodgson (1848-1876; Lot 126); and NJ shore shark attack victim and inspiration for *Jaws* Charles Vansant (Lot 151). The grave marker for naval engineer and arctic explorer Rear Admiral George Melvile (1841-1912; Lot 47) could not be located.

<sup>2</sup> Email from Dennis Montagna, National Park Service, 20 November 2007.

<sup>3</sup> However, historical significance depends on the aspect of history one considers important. Cemetery volunteer Carol Yaster, for example, has compiled a history of notable women interred in Laurel Hill, but her research is not presently available to visitors to the cemetery and was not included in the notation of historically significant markers due to time constraints. Her research is available in Appendix D.

## APPENDIX A: FIELD SURVEY FORMS

Date
Surveyor
Section
Lot

				Conservation Urgency Ratings					
Name	Material	Tomb Type	Remarks	Aesthetic Significance	Historical Significance	Visibility	Severity of Deterioration	Progress of Deterioration	<b>Total</b>

# APPENDIX A

Date 12.01.2007  
 Surveyor KW  
 Lots?  
 Plot Section: Shrubbery (North)

Monument	Material	Tomb Type	Tomb Style	Conservation Urgency Ratings					Total
				Aesthetic Significance	Historical Significance	Visibility	Degree of Loss Severity of Deterioration	Progress of Deterioration	
1 Fo-Herall, Stephen E	marble			2		1-2	1/2	1	6
2 Gilbert "Family Vault"	granite			1		0/1	0	0	1.5
3 Graf, Frederick (1)	marble			1	3*	1	1/2	1	7.5
4 Graf, Mary (+ 2 sons)	marble			1		1	1	1	4
5 Evans (1)	marble			2/3	3*	3	1/2	1/2	11.5
6 Troutman, George (2 sons)	marble			1/2		3	1/2	1	7
7 Struthers, John	marble			1/2	3*	2	2	1/2	10
8 Deringer, John H.	marble			2		1/2	2	2	7.5
9 Deringer, Henry	granite			0/1	3*	1	1	0/1	6
10 Caser, Anna Hertzog (+ 1 son)	granite	Sarcophagi		0/1		1	0/1	0/1	2.5
11 Hertzog, Peter + Ann (w/ 1 son)	marble	crbs (2)		1/2		2	2	1/2	7
12 unknown orator column/urn	marble			3		3/3	2	2	10
13 Towell, Harriet	marble	crb		1/2		2	2	1/2	7
14 Davis, Benjamin	granite			0		0/1	1	0/1	2
15 Davis Vault	marble	obstsk w/ pt		3		3/3	1/2	1/2	9
16 Baker, George	granite	cross on ground		0		1	0	0	1
17 Baker, George Henry	"	upright + cross		0	3*	2	0	0	5
18									
19									
20									

Method [ Focus on historic monuments in your section  
 Then overlap areas

# APPENDIX A

Date 12.01.2007  
 Surveyor Tejaswini Aphae  
 Lot section K  
 Plot

Conservation Urgency Ratings

Monument	Material	Tomb Type	Tomb Style	Aesthetic Significance	Historical Significance	Visibility	Severity of Deterioration	Progress of Deterioration
109	sand/granite	Musoleum		3	3	3	0	0
02 Baird John lot 228	sandstone	Sarcophagus		1	2.5	1.5	1.5	1.5
111 Baldwin 132	Granite	column		1.5	2.5	1.5	2.5	2.5
98 Biddle 3	sandstone	column/obelisk		2	2.5	1.5	2	2
07 Carson <del>237</del>	Granite	Cross		0.5	0	1	1	1
08 Dougherty 246								
01 Filler 207	granite	obelisk		2	3	3	1	1
10 Hughes 49	bronze	Statue						
70 Read 206								
93 Singsly 235	Marble	Sarcophagus		1.5	2	3.5	2	1
16 Kidner 338	Marble Sandstone	Musoleum		3	2.5	2.5	1.5	1.5
99 Patterson lot 38-51	Granite/ Marble	Sarcophagus/ statue		3	2	2.5	2.5	2.5
1 Newkirk 235	granite	Obelisk						
Carson	Marble	Musoleum	Neo-classic Gothic	2.5	2.5	3	0	0.5
John Fest 134	Marble	-  -	-  -	2	0	3	2	2
Edwy Fest 135	Marble	-  -	-  -	2	0	3	2	2
Benson Rosalpe Stevenson	Granite	Sarcophagus Cross	Moorish	2.5	0	3	2	2
childs	Marble	Obelisk		2	0	3	1.5	1.5
Griffiths	Marble	-  -		2	0	3	2	2
Suents	Sandstone	sarcophagus						
Henry Biston	sandstone Marble	Musoleum	Neo-classical	3	0	3	1.5	1.5
Barnett	Sandstone	Sarcophagus		1.5	0	2.5	1.5	2
Food	Marble	Musoleum	-  -	2	0	3	3	3
Jerx	Granite	Musoleum		1.5	0	3	2.5	2.5
Samuel Johnes	Sandstone	-  -		1.5	0	3	2.5	2.5
Mohering	-  -	-  -		1.5	0	3	2.5	3
Kemble	granite	Musoleum		2.5	0	3	1.5	1.5
Mc Dowell	sandstone	obelisk		2.5	0	3	1.5	1.5



# APPENDIX A

"Historically Significant"

Date 12/1/2007  
 Surveyor ALICE L. FINE  
 Section 10  
 Lot Various

### Conservation Urgency Ratings

Monument	Material	Tomb Type	Tomb Style	Aesthetic Significance	Historical Significance	Visibility	Severity of Deterioration	Progress of Deterioration	CATHY'S
126	Hodgson, Lt. Benj.	marble	Column	2	1→2	1→2	1→2	1→2	5→4
132	Storkley, William	granite	maus	2	1→2	1→2	0	0	5
28	Baker, Hilary	slate	horiz. angled	0	1→2	1	1	1	5
47	Medville, Rear Admiral George	missing	missing						
84	(McCreary, George Rear Adm) See "1894" sheet								
136	Reynolds, John	granite	maus	2	1→2	1→2	1	1	5→4
151	Vansant, Charles	granite	headstone	0	2	1→2	0	0	6

# APPENDIX A

Date 12/5/2007  
 Surveyor ALICE L. FINKE  
 Section 10  
 Lot various

Conservation Urgency Ratings

Monument	Material	Tomb Type	Tomb Style	Aesthetic Significance	Historical Significance	Visibility	Severity of Deterioration	Progress of Deterioration	CATHY'S	TOTAL w/o
McCreary	Marble	Ob.		2	1	2	1	1	5	7
" " <sup>1846-1915</sup> George D	Granite	headstone		0	2	0	0	0	0	2
" " John B	Marble	headstone		2	0→1	1→2	1	2	3	8
" " Rachel Deardt				1	1	1	1	1	1	8
" " J Elmore				1	1	1	1	1	1	8
" " Jane				1	1	1	1	1	1	8
" " George D.	granite	headstone		0	0	0	0	0	0	0
Lewis, Eva	marble	cradle		2	0	1	1	1	4	5
Lewis, Mary Ann	"	"		2	0	1	1	1	4	5
Lewis, Wilson	"	"		2	0	1	1	1	4	5
Lacey, Mary Wilson	"	"		2	0	1	1	1	4	5
Lewis, Henry R <sup>b1893</sup>	"	"		2	0	1	1	1	4	5
Lewis, George W	"	"		2	0	1	1	1	4	5
Lewis, Henry R. <sup>b1819</sup>	"	"		2	0	1	1	1	4	5
Lewis, Emily M	granite	cross w/footstone		1	0	1	1	0	4	4
Lewis Benner, Henry	granite	sarco.		1	0	1	0	1	0	3
Benner, A Penrose	granite	"		1	0	1	0	1	0	3
Adamsen, George C.	marble	ob		2	0	2	2	1	4	7
Stewart, Thomas	granite	headstone		0	0	2	0	0	0	2
Adamsen, George Francis	"	"		0→1	0	2	0	0	0	3
Catherwood, Samuel	"	"		0→1	0	2	0	0	0	3
" Andrew	"	sarco.		0	0	2	0	1	0	3
Catherwood	granite	sculpture		0	0	2	0	1	0	3
				2	0	2	0	1	5	5



# APPENDIX A

Date 12/5/2007  
 Surveyor ALICE L. FINKE  
 Section 10  
 Lot various

16/12

48  
 24  
 12

## Conservation Urgency Ratings

Monument	Material	Tomb Type	Tomb Style	Aesthetic Significance	Historical Significance	Visibility	Severity of Deterioration	Progress of Deterioration	Cathy's	TOTAL w/o Cathy
Cathman, Ella	granite	Sarco		0-1	0	0	0	0	6	1
Jane Jordan	marble	headstone		0	0	2	2	1	4	5
Hassinger David	"	"		0	0	2	2	2	3	6
" Col. O. Stanley	"	"		1	1	2	1-2	1	5	8
" Mary Beth	"	CROSS		1	0	2	1-2	2-3	3	8
" Mary M	"	headstone w/ scroll		1	0	2	1-2	0	5	5
"	"	headstone - inscription eroding		0	0	2	2	2	3	6
Larned, Chas	"	"		0	0-1	2	1-2	0	5	5
" Win Henry	"	Sarco		2	0	2	2	2	5	8
" Matilda	"	headstone - inscription eroding		0	0	2	1-2	0	3	5
" Win Henry	"	"		0	0	2	1-2	1	3	5
Arkeley	marble	sculp		2-3	0	2	2-3	2-3	3	11
Fry, Horace	"	CROSS		1	0	2	2	2	3	7
" Eliz	granite	headstone		0	0	2	1	1	6	4
" John	"	"		0	0	2	1	1	5	4
Walker, Sarah	marble	once a headstone - now part to ground		1	0	2	2	2	1-3	7
Hagy, Emma	↓	↓		1	0	2	2	2	1-3	7
Hagy, Clayton	granite	headstone		0	0	2	0	0	6	2
Brostasky	marble	maus.		2	0	2	2	2	4	4
Shields	granite	maus.		2	0	2	0	0	6	4
?	sandstone	maus		2	0	2	2	2	2	8
Fahnestock	marble	maus		2	0	2	2	1-2	4	8
Polis	sandstone	maus		2	0	2	3	3	1-3	10

3



# APPENDIX A

Date 12/5/2007  
 Surveyor ALICE L. FINKE  
 Section 10  
 Lot Various

### Conservation Urgency Ratings

Monument	Material	Tomb Type	Remarks Tomb Style	Aesthetic Significance	Historical Significance	Visibility	Severity of Deterioration	Progress of Deterioration	CATHY'S	TOTAL w/o CATHY'S
South	cast iron	maus		2→3	0	2	3	3	1→3	11
Macalester	marble	maus		2	0	2	2	1→2	4	8
Burroughs	sandstone	maus		2→3	0	2	2→3	2→3	1→3	11
Borda, Ann M	marble	headstone		0	0	2	1→2	1→2	3	6
Borda, Matilda	marble	headstone	fallen	1	0	2	3	1→1	1→3	7
" George	marble	headstone	shaky	0	0	2	↑	↑	3	6
" ?	marble	headstone		0	0	2	↑	↑	3	6
" ?	"	"		0	0	2	↑	↑	4	6
" Charles	marble	"		0	0	2	2	1→2	4→3	6
Dallas, Jane	"	"	fallen	1	0	2	2→3	2→3	1→3	6
Borda, Mary Dallas	"	low headstone		0	0	2	1	1	4	4
" Katherine	granite	flat/horz		0	0	2	0	0	6	2
Fisler, Kate Rice	marble	headstone?	fallen	0	0	2	3	3	1→3	8
" Mary	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
" Jacob	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
" ?	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
" Lara V.	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
" Lizzie	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓

## APPENDIX B: PLOT MAPS



Detail of the plot map showing the Shrubbery, the circular floret at center. Courtesy of the Laurel Hill Cemetery Archives.



## APPENDIX B



Detail of the plot map showing Section K. Courtesy of the Laurel Hill Cemetery Archives.

## APPENDIX B



Detail of the plot map showing the southern portion of Section 10, just above Sections 4 and 5. Courtesy of the Laurel Hill Cemetery Archives.

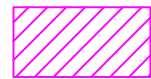
## APPENDIX C: MAPS





**KEY**

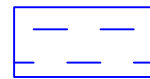
Artistic



Historical



Locational



**Significance Plan**



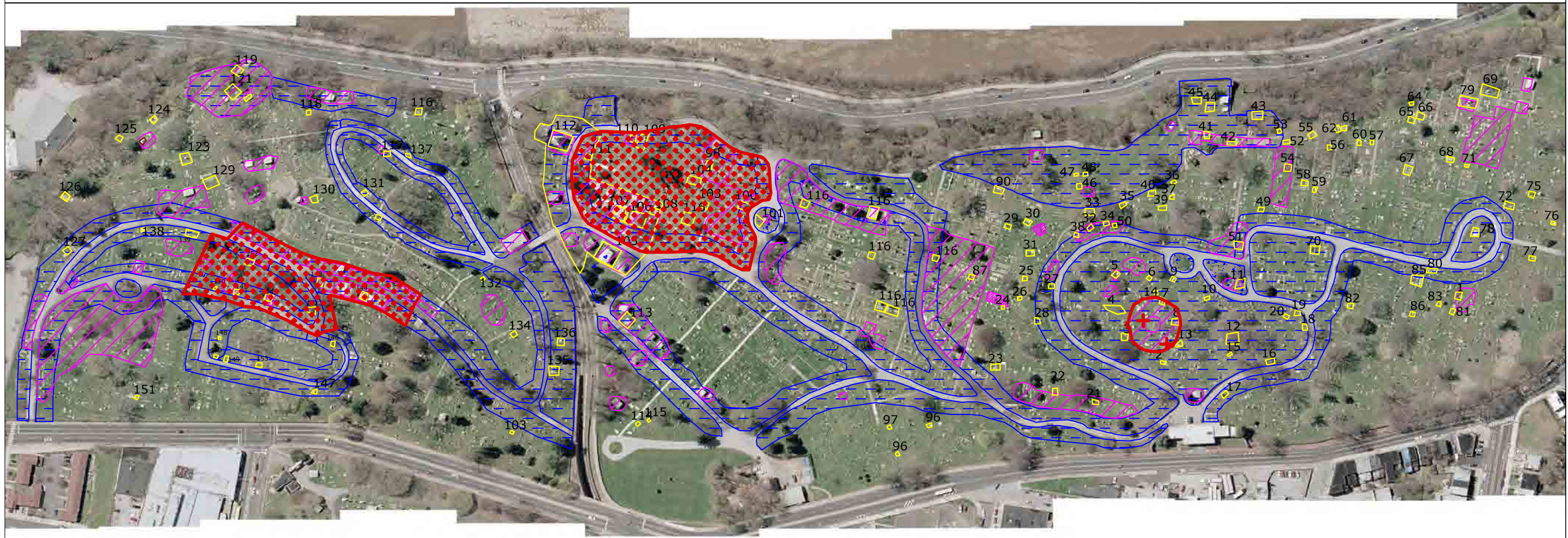
Not to scale  
Image courtesy Google Earth



**ARTISTIC, HISTORICAL, and LOCATIONAL SIGNIFICANCE**

LAUREL HILL CEMETERY --- 3822 RIDGE AVENUE --- PHILADELPHIA, PA  
 Preservation Studio Project, Fall 2007  
 Graduate Program in Historic Preservation  
 University of Pennsylvania





 Surveyed section

**KEY**

Artistic 

Historical 

Locational 

**Significance Plan**

Not to scale  N  
Image courtesy Google Earth

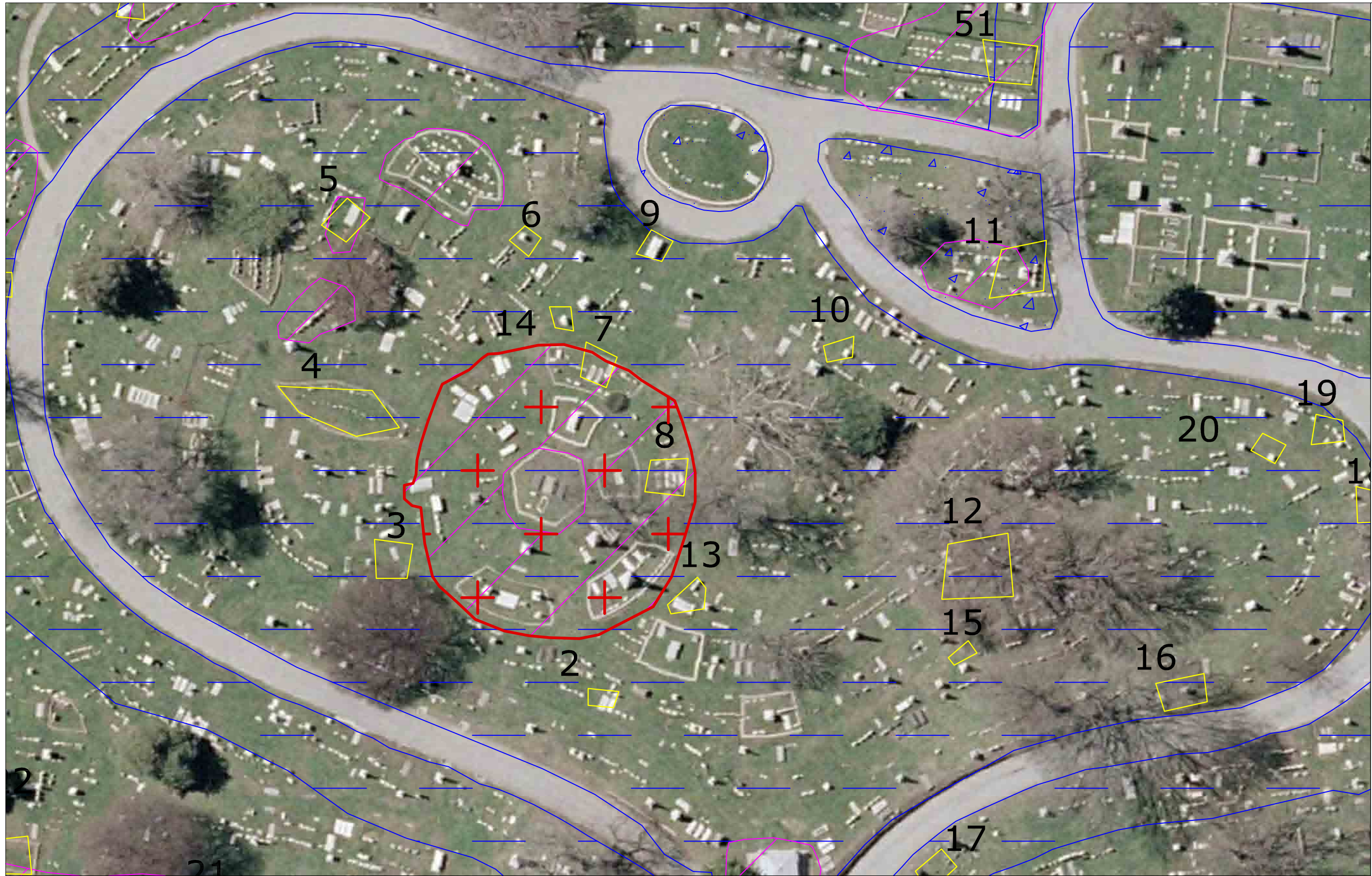


**ARTISTIC, HISTORICAL, and LOCATIONAL SIGNIFICANCE**

LAUREL HILL CEMETERY --- 3822 RIDGE AVENUE --- PHILADELPHIA, PA

Preservation Studio Project, Fall 2007  
Graduate Program in Historic Preservation  
University of Pennsylvania





 Surveyed section

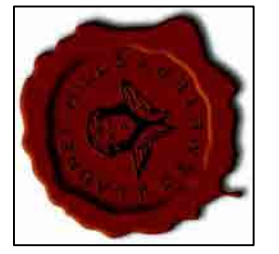
**KEY**  
 Artistic 

Historical 

Locational 

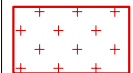
**Shrubbery Section**

Not to scale  N  
 Image courtesy Google Earth



**ARTISTIC, HISTORICAL, and LOCATIONAL SIGNIFICANCE**  
 LAUREL HILL CEMETERY --- 3822 RIDGE AVENUE --- PHILADELPHIA, PA  
 Preservation Studio Project, Fall 2007  
 Graduate Program in Historic Preservation  
 University of Pennsylvania





Surveyed section

**KEY**

Artistic



Historical



Locational



**Section K**

Not to scale

Image courtesy Google Earth



N



**ARTISTIC, HISTORICAL, and LOCATIONAL SIGNIFICANCE**

LAUREL HILL CEMETERY

--- 3822 RIDGE AVENUE

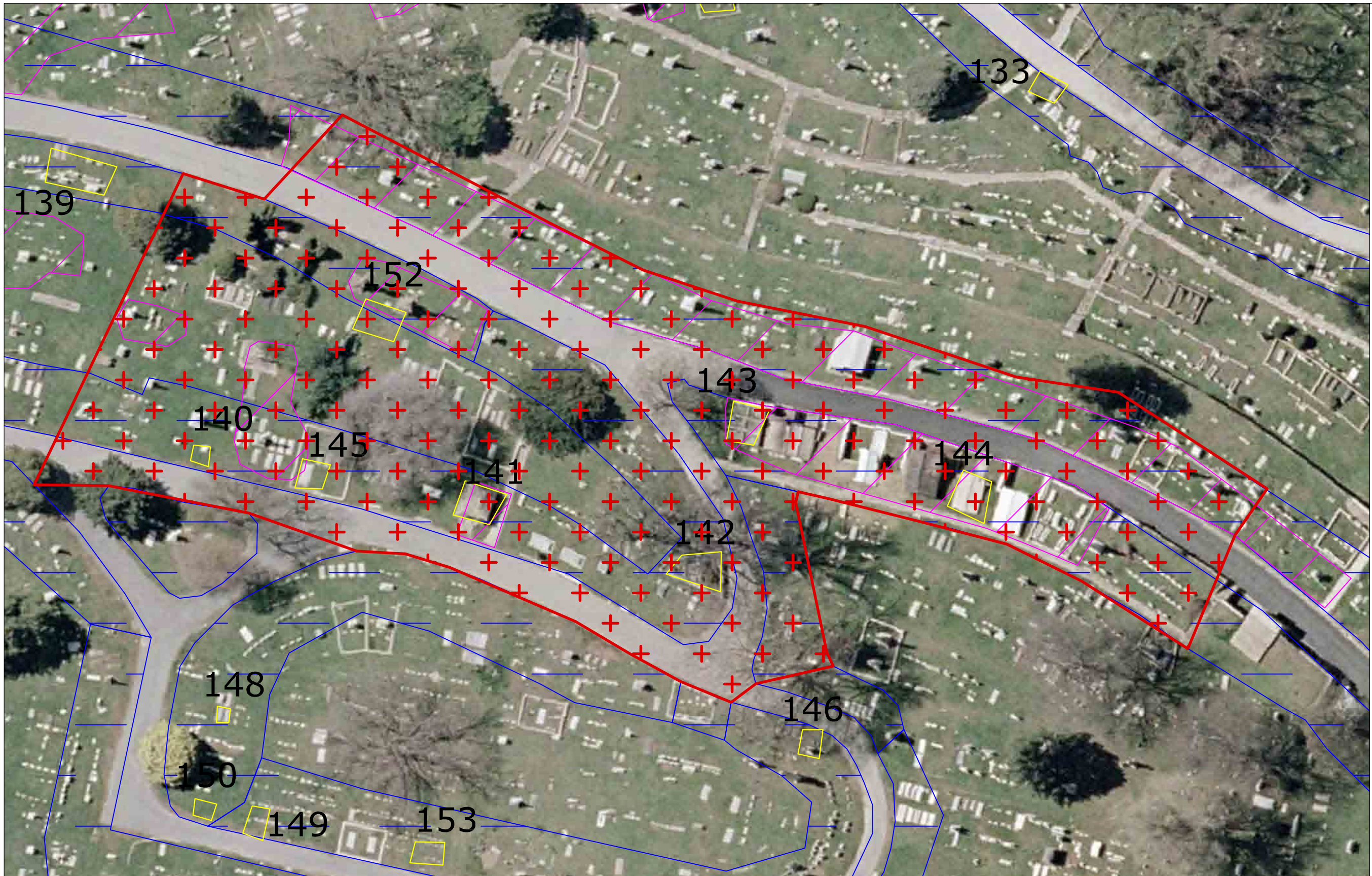
--- PHILADELPHIA, PA

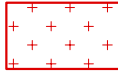



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University of Pennsylvania





 Surveyed section	<b>KEY</b>	 Artistic	 Historical	 Locational
--	------------	---	--	--

**Section 10**  
 Not to scale  N  
 Image courtesy Google Earth



**ARTISTIC, HISTORICAL, and LOCATIONAL SIGNIFICANCE**

LAUREL HILL CEMETERY --- 3822 RIDGE AVENUE --- PHILADELPHIA, PA  
 Preservation Studio Project, Fall 2007  
 Graduate Program in Historic Preservation  
 University of Pennsylvania



## APPENDIX D: ADDITIONAL HISTORICAL ACCOUNTS

## **Famous Women at Laurel Hill Cemetery**

*Section D, Lot 63: Martha Coston* (inscriptions faded but marker is still standing)  
Inventor of a pyrotechnic night signal flare and code system. Her flares and code system were successfully used by the U.S. Navy during the Civil War. After the Civil War, the U.S. Life Saving Service (which became the U.S. Coast Guard) used the flare until well into the 20th century.

*Section G, Lot 266: Mary Engle Pennington*  
Known as “The Ice Lady” or “The Mother of Refrigerated Shipping.” First chief of the Food Research Laboratory of the Dept. of Agriculture’s Food Research Laboratory. She perfected the design of refrigerated boxcars so that meat, poultry, fish, and eggs could be shipped safely. She also perfected the design of the modern egg carton.

*Section M, Lot 128: Frances Anne Wister*  
She rescued the Philadelphia Orchestra from the financial straits of its early years; she was also founder of the Philadelphia Society for the Preservation of Landmarks.

*Section T, Lot 190-195: Sara Yorke Stevenson*  
She was one of the founders of the University Archaeological Association at Penn, which became the University Museum. She was the first curator of the Egyptian and Mediterranean sections. She was also the first woman to receive an honorary degree from Penn (1894).

*Section 3, Lot 114: Mary Ann Lee Vanhook* (marker missing)  
Despite her short career, she is considered the first truly American ballerina. She premiered the ballet Giselle in the U.S.

*Section 7, Lot 1-2: Anna Hallowell*  
She created kindergartens for the children of Philadelphia. Also, she was the first woman to serve on the Board of Public Education.

*Section 7, Lot 72: Mary Eno Bassett Mumford* (marker missing)  
She was the second woman to serve on the Board of Public Education. She started a college preparatory course at Girls’ High School. She also created the first commercial high school for girls.

*Section 7, 77-80: Laura Matilda Towne*  
Founder of the Penn School on St. Helena Island, South Carolina.

*Section 9, 81: Harriet Frishmuth*  
Sculptor. One of her works is the Berwind monument in Section U.

ENHANCING THE ARBORETUM:  
The Trees at Laurel Hill

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December 19, 2007



## INTRODUCTION

The protection and maintenance of the landscape is of vital importance to the ultimate preservation of Laurel Hill. This project seeks to explore the historic landscape to inform recommendations for its future preservation.

Laurel Hill was envisioned as cemetery within a planted, wooded landscape. One of the first rural cemeteries in the country, Laurel Hill's landscape was a key aspect of its economic success and helped to make it a tourist destination in its early life. As one of America's first rural cemeteries, it also served as one of America's first public parks, created and enjoyed before Fairmount Park that now surrounds it. If Laurel Hill is to reinvent itself as a cultural asset, it should address its landscape issues that can enhance understanding and enjoyment of the place.

## THE HISTORIC LANDSCAPE

### *Design Intentions*

The site was selected for its beautiful river views, rolling topography, and proximity to the city of Philadelphia. Using principles from English landscape design, the designers took advantage of the natural setting, locating paths along natural contours, retaining old growth trees and selectively planting sections near entrances.<sup>1</sup> Horticulturist John Jay Smith, one of the cemeteries early directors, chose and planted many varieties himself. Evergreens were used as screens to create views and intimate settings. Ornamental trees, shrubs and flowers were planted in small groups, and by 1844, Laurel Hill was reported to have planted 2400 trees, shrubs and roots.<sup>2</sup> Smith's 1852 guide to Laurel Hill reported:

The visitor, looking around, will find himself in an extensive and variegated garden, redolent with flowers, and thickly planted with a luxuriant growth of trees and shrubs, through which monumental stones, obelisks, pyramids, &c., &c., are seen in all directions.<sup>3</sup>

1 The Halvorson Company, Inc. "Laurel Hill Cemetery: Strategic Plan for Preservation, Development, and Community Partnership." (June, 2000.)

2 "Laurel Hill." *Godey's Magazine and Lady's Book*. (1844): 107.

3 Smith, R. A. *Smith's illustrated guide to and through Laurel Hill cemetery* (Philadelphia, W.P. Hazard, 1852).



1. Laurel Hill Cemetery, 2007



2. Laurel Hill, 1844



3. Looking into South Laurel Hill, 1872



4. Notman's Plan from 1844

## The Trees at Laurel Hill

Smith goes on to implore visitors to explore select areas of the cemetery rather than trying to visit it all at once, and gives tours through sections in North Laurel Hill. Smith particularly enjoyed the walk along the river, describing:

the extent, richness, and variety of the landscape, enlivened by the ever peaceful and majestic flow of the Schuylkill, renders the prospect from this spot one of the most delightful obtained in any part of the United States, proverbially rich in beautiful scenery. Let us seat ourselves in one of the ornamented iron chairs provided so judiciously in the enclosures, and enjoy the view, which has been aptly termed a bright and tranquil painting. A profound silence, interrupted only by the ripple of the passing stream, the sighing of the soft wind of summer through the majestic trees, mingled with the clear sweet carols of the feathered songsters, reigns amid this beautiful garden of the dead.<sup>4</sup>

This project focuses on the trees at Laurel Hill as they played a significant role in the design of the site. While Smith may have later identified Laurel Hill as a “garden cemetery,” different from the “wooded cemetery” of Mount Auburn<sup>5</sup>, trees always played an important role in the cemetery landscape. Many of the trees were retained by the cemetery’s designers, particularly those along the edges of the site. Additional trees were carefully chosen and placed to create intimate settings and to screen views into and outside of the cemetery. A number of publications noted the picturesque quality of the site, and praised the extent and variety of tree species planted there. An 1838 description by the cemetery’s president, Nathan Dunn, clearly conveys what is memorable about a visit to Laurel Hill:

The land is ornamented by a great number of magnificent forest trees, interspersed with evergreens of fifty years growth, and to these have been added eight hundred ornamental trees and shrubs, in every variety, calculated to embellish the view. Nature and art have combined their aid to render it one of the most enchanting spots in this or any country; in this opinion we are seconded by the testimony of distinguished foreigners, who have remarked with surprise and admiration the variety of inland and river views, the bold and rocky crags, the smooth in-

4 Ibid.

5 Wunsch, Aaron. “Laurel Hill Cemetery Historic American Buildings Survey.” HABS No. PA-1811, 1999.



5. North Laurel Hill, 2007



6. Evans Monument, 1844



7. Laurel Hill gatehouse, surrounded by trees, 1856



8. Laurel Hill, unknown date.



clining precipice, and the level upland, concentrated, as it were, by an unusual effort of nature, in so small a space.<sup>6</sup>

The trees and shrubs were the responsibility of the Cemetery Company; in fact, lot holders were forbidden to plant or remove trees without the approval from the cemetery company as the company wanted responsibility for the overall appearance of the site. Lot-holders, in turn, were responsible for the planting of flowers and small plants within burial plots.<sup>7</sup>

John Jay Smith, the cemetery's horticulturist who wrote for *Horticulturist* magazine, often included reference to his experiences with plants using the trees and plants at Laurel Hill. An 1847 article reviewed his interest in tree culture, comparing the tree landscape of England to that of the United States, and pointed out specimens that have grown well at Laurel Hill, including the *Magnolia Grandiflora*.<sup>8</sup> Smith's writings provide a wealth of information about the types of plants that may be appropriate for planting in modern Laurel Hill. His intention of creating a type of arboretum was well recognized by early visitors, noted by A.J. Downing in 1849. He described Laurel Hill as:

...especially rich in trees. We saw, last month, almost every procurable species of hardy tree and shrub growing there – among others, the Cedar of Lebanon, the Deodar Cedar, the Paulownia, the Araucaria, etc. Rhododendrons and Azaleas were in full bloom; and the purple Beeches, the weeping ash, rare Junipers, Pines and deciduous trees were in abundant in many parts of the ground... It is a better arboretum than can easily be found elsewhere in the country.<sup>9</sup>

### *Changes through Time*

As the site gained popularity as a place of burial, the landscape gradually paid the price as trees and plants were removed. The first target was the only formally landscaped

6 Dunn, Nathan. "Entrance to Laurel Hill Cemetery." *Ladies' Garland and Family Wreath Embracing Tales, Sketches, Incidents, History* (1838): 196.

7 Laurel Hill Cemetery. *Regulations of the Laurel Hill Cemetery, on the River Schuylkill, near Philadelphia: the act of incorporation by the Legislature of Pennsylvania in 1837: and a catalogue of the proprietors of lots to February 1, 1846.*

8 Smith, John Jay, "Arbicultural gossip." *Horticulturist and Journal of Rural Art and Rural Taste*. (1847): 288.

9 Downing, A.J. No title. *Horticulturist and Journal of Rural Art and Rural Taste* (1849): 9.



9. Stretch of lawn in South Laurel Hill, 2007.



10. Shaded path along the river, 2007.



11. Shade tree in Central Laurel Hill, 2007.



12. Millionaire's Row, 1903.

section of the site, the Shrubbery.<sup>10</sup> The cemetery's great popularity meant that more and more people wanted to be buried there. While the company continued to add land to its holdings, it also continued to change the character of the site by removing trees and shrubs for monument installation, creating a landscape denser with stone than with plants. Little planting occurred during the late 19th century as plot owners devoted more time and money towards building extravagant mausoleums to display wealth. Aerials from the 1930s show a decimated landscape - the areas with the most trees are along the cemetery's edges with some scattered within the plots. Starting in the mid 20th century, lack of funding has limited the ability of the cemetery company to maintain such a landscape, and today, Laurel Hill has lost much of its natural quality, taken over by marble monuments and burial plots.



13. Aerial Photograph of North and Central Laurel Hill, 1930s.

### RECOMMENDATIONS

The landscape issues at Laurel Hill are wide, ranging from ground cover to erosion to historic and modern viewsheds to groundwater to plantings. All of these issues should be addressed at some point in the future, but none pose a particular threat or hindrance to the enjoyment of the site. Several key views remain clear or have been recently cleared. Erosion is limited to small areas on top of retaining walls and in between mausoleums, and may be dealt with through ground covers and the use of additional small plants to stabilize slopes. However, the enjoyment of the site can be enhanced and enriched by certain landscape



14. Road in Laurel Hill framed by trees, 2007.

<sup>10</sup> Wunsch, Aaron. "Laurel Hill Cemetery Historic American Buildings Survey." HABS No. PA-1811 (1999).



strategies that bring the essence of the rural landscape back to Laurel Hill. The following recommendations attempt to outline some best practices for the treatment and reinstatement of the trees at Laurel Hill.

### *Justification of Project Area*

Through the analysis and exploration of the historic documentation about Laurel Hill's landscape, it was determined that the trees are not only a significant part of the design intentions for the site, but that they are a place where the cemetery may begin to implement new landscape strategies. The cemetery continues to plant new trees while the planting of flowers is limited or non-existent for most of the cemetery, most likely because of limited staff and financial resources. Planted landscapes require a great deal of maintenance, and currently Laurel Hill cannot afford much more than the bimonthly mowing of the grass. But the strategic planting of trees offers Laurel Hill the chance to give a future to the landscape, and ensures that the site will retain its rural characteristics.

Trees are long-lasting, and have the ability to have an enduring impact on the communication of the values of Laurel Hill to future generations while providing immediate benefit to the site and the city. Additionally, they create large-scale visual interest, providing scenic backgrounds and an overall beauty to the site. Located in a neighborhood conspicuously lacking in street trees and yards, Laurel Hill serves as a green oasis, rich with nature, reflecting the passage of time through the seasons. They provide fall color, spring flowers, and shade in the heat of summer, a particular request from Laurel Hill's own visitors. Trees can also screen unpleasant views, which may be valuable for a site surrounded by parking lots and railroad tracks. And for a site located in the middle of an urban setting, they provide environmental benefits for the city: cleaning the air, providing habitat for wildlife, reducing storm runoff and absorbing atmospheric carbon and summer heat.

### *Recommendations for Tree Selection*

When planting at Laurel Hill, tree choice should be a key consideration. The cemetery company's *Guide to Laurel Hill* from 1844 provides a list of the most "remarkable and interesting" trees, shrubs, vines, and flowers to plant within the Laurel Hill landscape. About a hundred trees were spe-



15. View in South Laurel Hill, 2007.



16. Fall color at Laurel Hill, 2007.



17. Small shade tree along the road, 2007.



cifically noted for use in the cemetery. This list provides a good baseline for developing a tree list for use today. However, there are some problems with the plants on that list, and it should not be used as defining list of what should be planted at Laurel Hill. Some plants listed in the guide are now considered invasive, which could be a problem at a site like Laurel Hill. Many of the trees have developed vulnerabilities to disease and insects, making the sustainability of those trees particularly costly and time-intensive. Additionally, some of the trees are no longer available in the commercial market, and may be impossible to find.

Several criteria were established for the trees at Laurel Hill.

1. Where possible, trees should be used from the 1844 list or be appropriate for the time period. However, trees from the 1844 list determined to be inappropriate should not be used.
2. Where possible, trees should be native to the area to ensure compatibility with the site and to enhance the sites ecological benefits. If not native, tree species should be known to be well-adapted to the area, soil, and climate.
3. Trees should not have known problems like vulnerabilities to diseases, insects or other problems that may impact their life span
4. Trees should not require extensive maintenance like pruning or preventative treatment for insect problems to relieve the management of costly and time-consuming interventions with the landscape.
5. There should be a variety of size, color, leaf types , and ornamental qualities to choose from to add interest to the site.

The 1844 list was examined against these criteria, and a list of approximately forty trees was developed for the management of Laurel Hill to use as a base for future plantings. Similarly, a list of about forty of the most inappropriate trees have been compiled with explanations as to why they do not meet the aforementioned criteria and should not be used at Laurel Hill. The remaining trees may no longer be available or have limited information about performance of the tree, or may not meet most of the aforementioned criteria. (Appendix A)

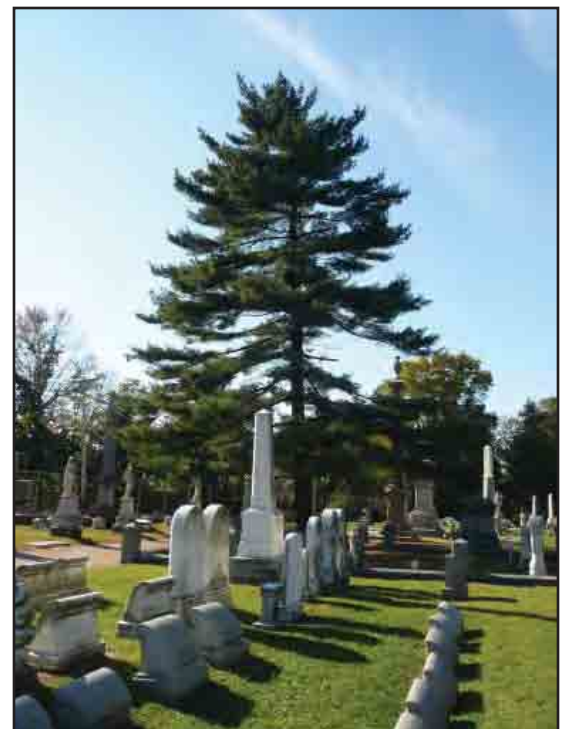
A survey was done of the trees in North Laurel Hill, and a number of beautiful, mature trees were identified, in-



18. Large specimen tree, 2007.



19. Oak leaves at Laurel Hill, 2007



20. Evergreen amidst the monuments, 2007.

cluding lindens, beeches, maples and sycamores – all tree types mentioned on the 1844 list, and an area of South Laurel Hill was recently planted with a selection of new trees. New plantings should compliment these existing trees while adding variety in shape, color and size. An argument can be made that to best recreate the historical intent and effect of the rural cemetery, tree selection for the site might also include well-adapted and attractive species that were not on the 1844 list or even available at that time. This would ensure a variety of trees at Laurel Hill, one of the design intentions.

While a significant portion of the historic landscape included evergreens, these trees may be more difficult to incorporate into the current landscape. Many large evergreens, like spruces and firs, can be difficult in the dense cemetery environment as their branches go all of the way to the ground, and may cover markers and block paths. These large evergreens should be used along perimeters and where there is adequate space, while the large and ornamental deciduous trees can be used throughout the cemetery to provide color and shade for visitors.

### *Areas for Replanting*

Recommendations for replanting in Laurel Hill stem from the historic intentions of the designers, and take into account the current situation of the site. Extensive planting to recreate earlier times is impossible due to the lack of space available for trees. However, in areas where trees have been or need to be removed, replanting can ensure that the landscape continues to grow and change. The map displayed in Appendix B indicates areas where trees have recently been removed, or trees that are dead, dying or diseased, offering places for new trees to be planted. New trees can also be added to open areas. Planting priority should also take into account areas identified as significance for historic, artistic or locational interest, as discussed earlier. (Appendix C)

Problem areas in the cemetery would benefit from selective planting. The north end of the cemetery is bordered by a visible railroad track as well as a transformer. Some trees exist that block the view towards Ridge Avenue, but they are largely deciduous trees that provide limited coverage in winter, and a large section remains clear. There are few monuments along this northern edge, and paths end slightly inside the border, allowing room for tree plantings.



21. Unhealthy tree, 2007



22. Northern edge of North Laurel Hill, bordering the railroad tracks, 2007.



23. Maintenance shed from Ridge Avenue, 2007.



Trees in this area could provide a visible barrier to these unpleasant views. This may be an ideal place to use larger evergreens that provide more consistent visual coverage through all seasons.

Another possible area for tree enhancement is around the maintenance shed in Central Laurel Hill. Some shrubs block views of the driveway and parking area, but the modern building is still fairly visible from other parts of the cemetery as well as Ridge Avenue. Additionally, the area directly across from the maintenance shed is largely empty. While it is one of the only areas left in the cemetery for burial space, burials at the cemetery are a very small portion of the site's income. Tree plantings in this area could include shade trees, small groupings of ornamental trees or trees mixed with shrubs. This may even make the area more appealing for potential lot-holders although reducing the land area available for lot purchase. This area is at the junction of Ridge Avenue and Hunting Park Avenue, and would provide a beautiful and rich view into the cemetery.

### *The Future of the Landscape*

As a natural landscape, Laurel Hill will and should change with time. The future of the landscape as a connection to the historic past of Laurel Hill will depend on the actions of the cemetery today. Trees take a long time to reach maturity, and the large specimen trees that Laurel Hill is known for need time to mature. On-going maintenance of these trees, as well as new plantings, will require a certain degree of investment now, but will repay the site over many years.

As the cemetery begins to address the deferred maintenance of the site that has occurred since mid-century, the landscape should not be forgotten for the monuments. There are a number of possible ways to enhance the ecological value of the site. The cemetery may decide to re-introduce flowers and smaller plants in strategic areas of the cemetery to re-establish the garden aspect of the site, or restore the shrubbery as one of the only formal areas in the entire cemetery. Whatever path is chosen to follow, the historic intentions of the landscape should be balanced with the current needs and abilities of the management with an eye toward to future.



24. Central Laurel Hill from Hunting Park Avenue, 2007.



25. Laurel Hill from Google Earth, 2007

It may be possible to partner with local horticultural sites to re-establish the availability of the rare and unusual trees once found at Laurel Hill. Bartram's Garden in West Philadelphia holds a native plant sale each year where they sell plants cultivated on-site. Laurel Hill could be a great site to cultivate these specimens, or to provide a public site for their long-term survival. To ensure that Laurel Hill continues to plant rare and exotic plants as it was known for during its early years, establishing partnerships with such organizations could be mutually beneficial. Working with this or any of the many gardens and arboreta in the Philadelphia area could be a great way to generate financial support for tree plantings. It is also a great way for Laurel Hill to develop relationships with other cultural sites in Philadelphia, further increasing the cemetery's visibility and visitor base.

To further bring the landscape into the interpretation of the site, it would be valuable to begin labeling the trees as they are being planted. This could be an inexpensive as a simple tag that identifies the species name, or a more elaborate small interpretive panel with more detailed information. Labeling the trees will add to the arboreal quality of the site. It is important to take advantage of the educational resources at Laurel Hill - in this realm, and many others, the landscape has much to offer.



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20. Marlene Goeke, 2007
21. Marlene Goeke, 2007
22. Marlene Goeke, 2007
23. Marlene Goeke, 2007
24. Marlene Goeke, 2007
25. Google Earth

Appendix A: Tree Lists

**Trees Not Recommended for Planting**

*from the Guide to Laurel Hill, 1844*

List of the Principal Trees at Laurel Hill

1844 Plant List: Latin and common names	Common Name (Modern Latin)	Native to Pennsylvania/ Eastern U.S.?	Appropriate	Shade	Flowering	Evergreen	How tall does it grow? (feet)	How wide does it grow? (feet)	In what zones is it hardy?	Additional comments
Aesculus Ohioensis, Michx. The Ohio Horse Chestnut, or the Ohio Buckeye	Ohio buckeye (Aesculus glabra)	yes	okay	yes	yes	no	20-40	20-40	3-7	likes moist soil; can be susceptible to leaf blight or scorch
Laurus Sassafras, L. The Sassafras Laurel or Sassafras tree	Common Sassafras (Sassafras albidum)	yes	yes	yes	yes	no	30-60	25-40	4-9	provides fall color, interesting leaf shapes; adaptable to many soils; difficult to transplant
Carpinus Betulus, L. The Birch, or Common Hornbeam	European Hornbeam	Europe	yes	Yes	no	no	40-60	30-40	4-7	not native but adapted; comes in other varieties like weeping, etc.
Fagus Sylvatica, L. The Wood, or Common Beech	European Beech	Europe	yes	yes	no	no	50-60	35-45	5-7	leaves hold late into the fall; use in large areas; tolerant of soil types
Fraxinus Americana, Willd. The American Ash	White Ash	yes	yes	yes	no	no	50-80	40-70	3-8	sensitive to drought; moist well drained soil, acid to neutral; medium shade
Halesia Tetraptera, L. The Four-winged-fruited Halesia or common snowdrop tree	Carolina Silverbell	USA	yes	no	yes	no	30-40	20-35	5-8	great under story tree
Quercus Macrocarpa, Willd. The Large-fruited American Oak	Bur Oak	yes	yes	yes	no	no	70-90	60-90	3-8	durable, large; slow growth; diseases and insects most often not a problem; intolerant of shade
Salisburia Adiantifolia, Smith, The Ginkgo Tree	Ginkgo (Ginkgo Biloba)	Asia Minor	yes	yes	no	no	50-80	varies	4-9	buy male trees for no fruit; adaptable
Salix Annularis. The Curled Willow	Curled Willow (Salix Babylonica 'Crispa')	China	yes	no	no	no	30-40	30-40	6-8	interesting leaves
Salix Babylonica. The Babylonian or Weeping Willow	Babylon Weeping Willow	China	yes	no	no	no	30-40	30-40	6-8	interesting form
Taxus Baccata, L. The Berried of Common Yew	English Yew	England	yes	no	no	yes	30-60	15-25	5-7	adaptable; need good drainage; good for an evergreen; disease free
Carya Alba, Nutt. The Shellbark Hickory of several varieties	Shellbark Hickory (Carya laciniosa)	yes	yes	yes	no	no	60-80		5-8	limited in normal landscape use; provides good fall color
Abies Alba, Michx. The White Spruce Fir	White Fir (Abies concolor)	US	yes	no	no	yes	30-50	15-20	3-7	easily adaptable for landscape; good or warm weather
Acer Rubrum, L. The Red-flowering or Scarlet Maple	Red Maple	yes	yes	yes	no	no	40-60	varies	3-9	provides good fall color
Aesculus Rubicunda, Lois. The Reddish-flowered Horse Chestnut	Red Horsechestnut (Aesculus xcarnea)	hybrid	yes	yes	yes	no	30-40	30-40	4-7	widely adaptable to soil types; can be susceptible to leaf blight
Betula Nigra, L. The Black Birch	River Birch	yes	yes	yes	no	no	40-70	40-60	4-9	great bark
Cercis Canadensis, L. The Common Judas Tree	Eastern Redbud	yes	yes	no	yes	no	20-30	25-35	4-9	beautifully ornamental in spring
Chionanthus Virginica, L. The Virginian Snow-flower or Fringe Tree	White Fringetree	yes	yes	no	yes	no	12-20	12-20	4-9	underutilized tree
Cornus Florida, L. The Florida Dogwood	Flowering Dogwood	yes	yes	no	yes	no	20-30	20-30	5-9	use disease resistant cultivars
Gymnocladus Canadensis, Lam. The Kentucky Coffee Tree	Kentucky Coffeetree	yes	yes	yes	no	no	55-75	45-65	4-9	medium to fast growth; provides light shade; free of disease and insects; tolerates urban sites; requires some clean up of pods
Juniperus Virginiana, L. The Virginian Juniper, or Red Cedar	Eastern Red Cedar	yes	yes	no	no	yes	40-50	8-20	2-9	tough, irrepressible
Kolreuteria Paniculata, Laxm. The Panicles Flowering Kolreuteria	Goldenrain Tree	intro. China	yes	no	yes	no	35-40	25-40	5-9	no serious diseases or insects; tolerant of urban conditions; requires occasional pruning
Magnolia Acuminata. The Pointed Leaved Magnolia, or Cucumber Tree	Cucumber Tree Magnolia	yes	yes	yes	yes	no	50-80	50-80	4-8	good shade tree; likes moist soils
Pinus Strobus, Lindl. The Weymouth Pine	White Pine	yes	yes	yes	no	yes	50-80	20-40	3-8	good for general landscape use
Pinus Sylvestris, L. The Scotch Fir	Scotch Pine		yes	no	no	yes	30-60	30-40	2-7	adaptable; useful for screens
Ptelea Trifoliata, L. The Three-leafed Ptelea, or Shrubby Trefoil, or Hop Tree	Hoptree	Eastern US	yes	no	yes	no	15-20	15-20	3-9	generally no known problems; good under story plant, small; adaptable
Cedrus Libani, Barr. The Cedar of Lebanon	Cedar of Lebanon	Asia Minor	yes	no	no	yes	40-60		5-7	very long-lived; particularly picturesque in old age; introduced to U.S. during colonial times; highly recommended in the 1844 list
Taxodium Distichum, Rich. The Deciduous Cypress	Baldcypress	Southern US	yes	yes	no	no	60-80	20-45	5-9	becomes chlorotic above pH 7.5; relatively free of disease and insects; moderate to fast growth; good for use in grouping
Magnolia Purpurea, Sims. The Purple-Flowered Magnolia	Sweetbay Magnolia	yes	yes	yes	yes	yes	10-20	10-20	5-9	good specimen tree, small
Macluria Aurantiaca, Nutt. The Osage Orange	Osage Orange (Maclura pomifera)	Southeast U.S.	yes	yes	no	no	20-40	20-40	4-9	tough and durable; use males to avoid messy fruit
Halesia Diptera, L. the Two-winged-fruited Halesia, or snowdrop tree	Two Wing Silverbell	Southeast U.S.	yes	no	yes	no	20-30		5-8	difficult to transplant larger plants; small but beautiful
Magnolia Macrophylla, Mx. The Long Leaved Magnolia	Bigleaf Magnolia	Central U.S.	yes	yes	yes	no	30-40	30-40	5-8	needs room to grow; large leaf litter; likes moist acid soil; found and named by John Bartram
Salisburia Adiantifolia, Smith, The Ginkgo Tree	Ginkgo (Ginkgo Biloba)	China	yes	yes	no	no	50-80	varies	4-9	hardy in urban environments; tolerant of many types of soil and air; use male trees for no fruit; adaptable; good specimen tree
Platanus Occidentalis, L. The Western Plane, or Buttonwood	American Sycamore	yes	yes	yes	no	no	75-100	70-90	4-9	great and noble trees
Quercus Alba, L. the White Oak	White Oak	yes	yes	yes	no	no	65-85	50-80	3-8	adaptable to soil type; excellent specimen tree or in groves
Quercus Palustris, Willd. The Pin Oak	Pin Oak	yes	yes	yes	no	no	55-75	40-55	5-8	medium to fast growth, intolerant of shade; massive stature; chlorosis in alkaline soils; low branches should be pruned
Quercus Rubra, L. The Red, or Champion Oak	Northern Red Oak	PA	yes	yes	no	no	60-80	45-65	5-8	tolerates urban condition; growth slow upon planting but speeds up; diseases and insects seldom a problem; will heave sidewalks
Thuja Occidentalis, L. The American Arbor Vitae	American Arborvitae	yes	yes	no	no	yes	40-60	10-15	2-7	good for hedging; durable
Tilia Americana, L. The American Lime Tree	American Linden, Basswood	yes	yes	yes	no	no	60-80	20-40	2-8	already a number planted at Laurel Hill
Virgilia Letea, Mich. The Yellow-Wooded Virgilia, or Yellow-Wood	American Yellowwood (Cladrastic kentukea)	USA	yes	yes	yes	no	30-50	40-55	4-8	excellent specimen tree
Ilex Opaca, Ait. The Opaque-laved or American Holly	American holly	yes	yes	yes	no	yes	40-50	18-40	5-9	dense growth; slow growing; protect from winter wind and sun
Cedrus Libani, Barr. The Cedar of Lebanon	Cedar of Lebanon	Asia Minor	yes	no	no	yes	40-60		5-7	magnificent old; long-lived
Acer Saccharinum, L. The Sugar Maple (Acer Saccharum)	Sugar Maple	yes	yes	yes	no	no	60-75	40-50	3-8	tolerates many conditions, but not high-streets environments; provides great fall color



**TREES NOT RECOMMENDED FOR PLANTING**

*from the Guide to Laurel Hill, 1844*

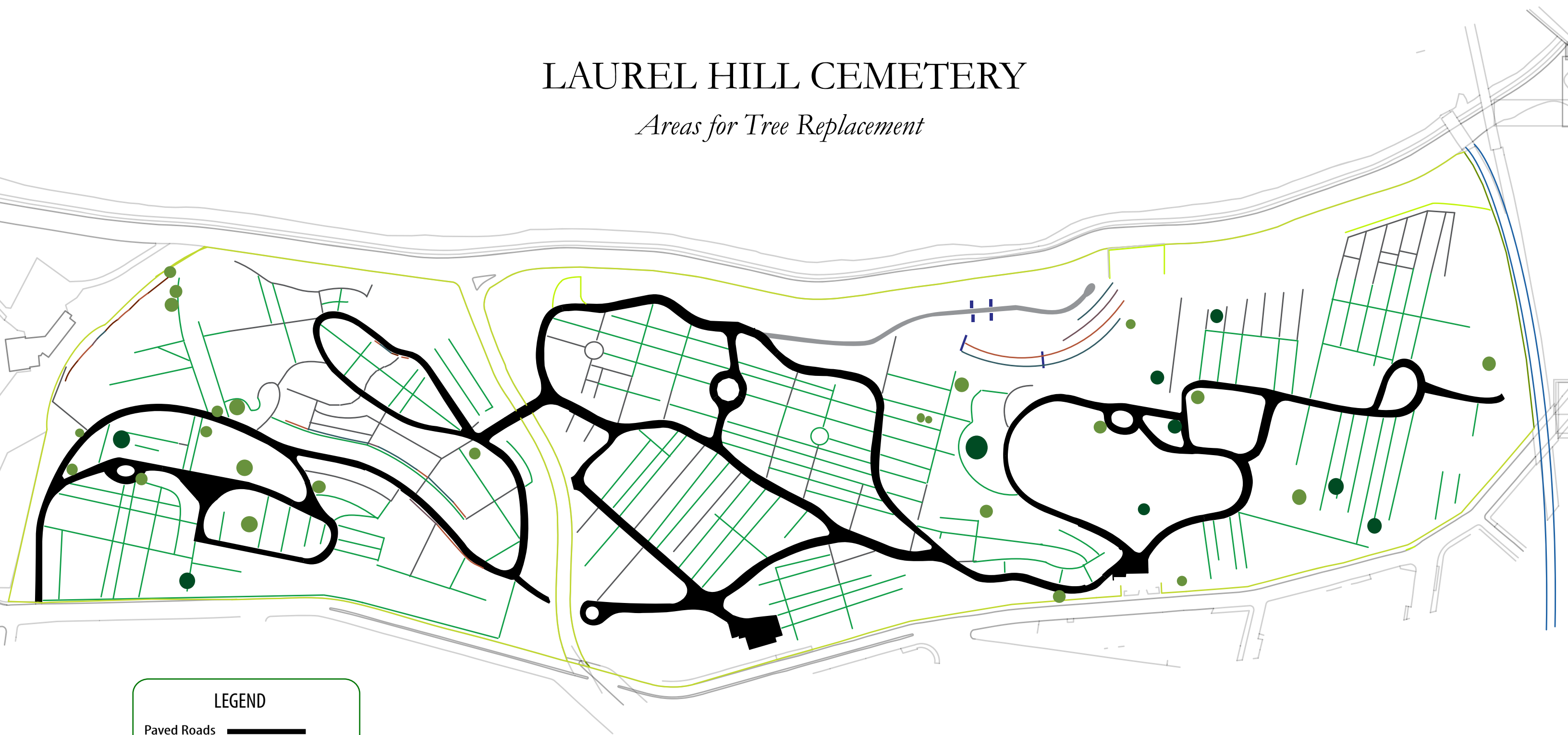
List of the Principal Trees at Laurel Hill

1844 Plant List: Latin and common names	Common Name (Modern Latin)	Additional comments
Larix Americana, Michx. The American Larch	Larch	not available in consumer market
Populus Tremula, L. The Trembling-leaved Poplar, or Aspen	Quaking Aspen (Populus tremuloides)	short-lived
Taxus Hibernica, Hook. The Irish Yew	Irish Yew	small
Acer Psuedo-Platanus, L. The Mock Plane Tree, the Sycamore, or Great Maple	Planetree or Sycamore Maple	lacks dignity
Betula Alba, L. The White or Common Birch	White Birch	disease-prone
Betula Papyracea, Ait. The paper birch	Paper or Canoe Birch	too hot here; may not be easy to find on consumer market
Carasus Avium Flore Pleno, Manch. The Flowering Cherry Tree	Mazzard Cherry (Prunus)	probably can't find
Carasus Padus, Dec. The Bird-Cherry Tree	European Birdcherry	too warm
Crataegus, or Thorn. A great variety of the most ornamental	Hawthorn	disease-prone, look to other cultivars instead
Larix Europaea, Dec. The European Larch	European Larch (larix decidua)	diseases, requires warmer weather
Poplus Alba, L. The White Poplar, or Abele Tree	Silver or White Poplar	poplars pose many problems with disease and maintenance
Populus Nigra, L. The Black-Barked, or Common Black Poplar	Lombardy Poplar	susceptible to canker
Robinia Pseud-Acacia, L. The Common Robinia, or False Acacia	Black Locust	considered invasive
Sophora Pendula, L. The weeping Sophora	Japanese Pagodatree (Sophora japonica 'pendula')	vulnerable structure; can have falling branches
Tilia Europe, L. The European Lime Tree	European Lime (tilia europea)	cordata is better
Ulmus Americana, L. The American Elm	American Elm	disease-prone
Ulmus Campestris, L. The English, or Common Elm.		all elms bad because disease-prone
Ulmus Glabra, Mill. The Wych Elm.	Scotch Elm	disease-prone
Abies Canadensis, Michx. Thye Hemlock Spruce Fir	Canadian or Eastern Hemlock (Tsuga canadensis)	susceptible to wooly adelgid
Acer Platanoides, L. The Platanus-like or Norway Maple	Norway Maple	considered invasive
Betula Pendula. The Weeping Birch	European White Birch	insect-prone
Castanea Americana, Michx. The American Chestnut	American Chestnut (Castanea dentata)	all dead - impossible to get
Gordonia Pubescense, L'her. The Pubescent Gordonia, or Lobloppy Bay, formerly the Franklinia Americana, Marsh.	Franklinia	difficult to take care of; "fussy"
Juglans Cinerea, L. The Gray-branched Walnut Tree, or Butternut	butternut	disease-prone; do not use until resistant cultivars are developed
Platanus Orientalis, L. the Oriental Plane	Oriental Plane	cultivars are better (i.e. P. x acerifolia)
Populus Canescens, Smith. The Gray, or Common White Poplar	Gray Poplar	poplars can be problem-prone
Populus Fastigiata, Desf. The Lombardy Poplar	Lombardy Poplar (Populus Nigra)	short-lived, disease-prone
Populus Graeca, Ait. The Grecian or Athenian Poplar		poplars pose many problems with disease and maintenance













Appendix B: Areas for Tree Replacement

# LAUREL HILL CEMETERY

## *Areas for Tree Replacement*



**LEGEND**

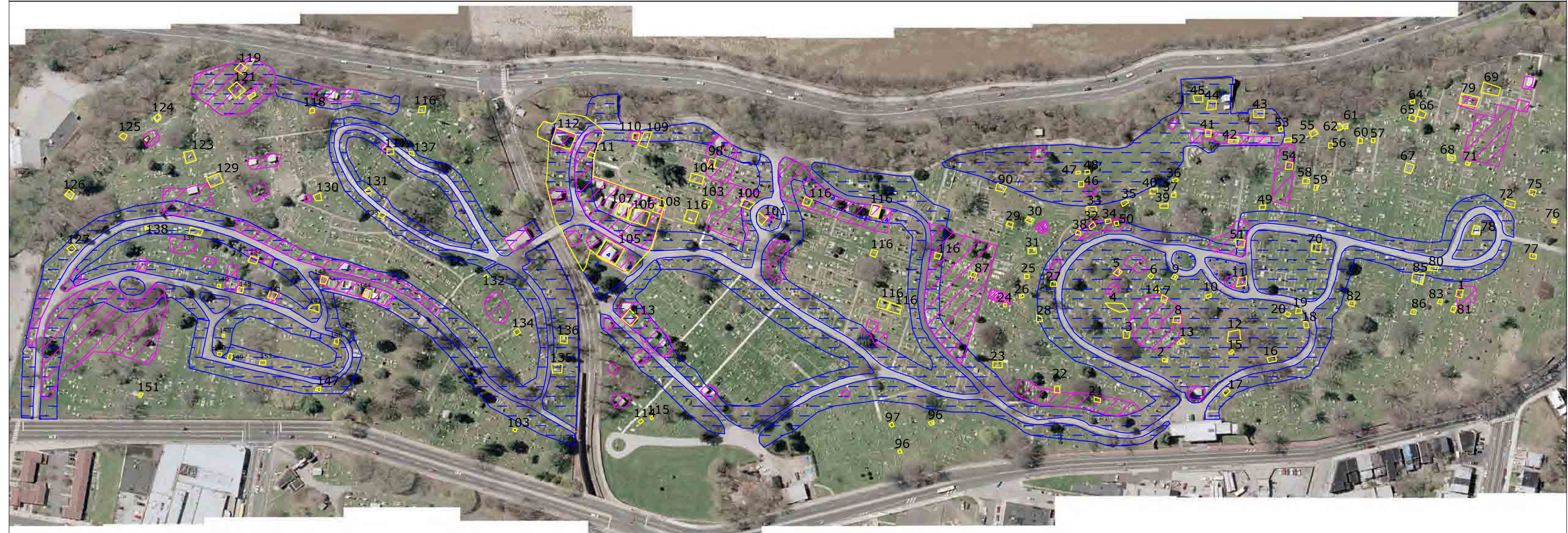
- Paved Roads 
- Paved Paths 
- Informal Grass Paths 
- Gravel Roads 
- Granite Walls 
- Ashlar Walls 
- Concrete Walls 
- Random Rubble Walls 
- Tree Stumps 
- Dying/Diseased Trees 
- Railroad Tracks 
- Exterior Retaining Wall 

Appendix C: Areas of Significance



# LAUREL HILL CEMETERY

*Areas of Aesthetic, Historical, and Locational Significance*



Aesthetic 

Historical 

Locational 

**Significance Plan**

Not to scale

Image courtesy Google Earth 



# Clarifying the Visual Character of Laurel Hill: Looking for the Path System

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HSPV-711  
Fall 2007

## Clarifying the Visual Character of Laurel Hill: Looking at the Path System

The original cemetery was crisscrossed with a clearly marked path system. Over the years, this system of paths has fallen victim to neglect and infill. What once was clearly defined is now visible only to the practiced eye. Clarifying the path system flows out of the policy regarding the landscape while having a great impact on the visitor experience.

Being lost is an unpleasant experience, full of anxiety and confusion. Even though Laurel Hill is not unfathomable in scale, there are portions of the site where it is easy to lose sight of a landmark, like the river or any of the paved roads. Having a clear path systems would reassure the casual visitor that they are not lost, but going somewhere and can always turn back from whence they came.

A clarified path system would create a more welcoming environment not only through the safety of an obvious route, but also by inviting the visitor to explore deeper into the cemetery. Currently, the main paved path through the cemetery offers very little in the way of actively inviting inroads. The occasional sidewalk leads off the pavement, but often these end abruptly, leaving the visitor somewhat at a loss of where to go next. (Figure 1) With a defined path system in place, the visitor is free to wander through the cemetery without having to stop and ponder the next move.

Some areas need little help, as the routes between plots are rigidly defined by heavy granite coping. Other areas, particularly those behind the gatehouse, are a riot of headstones and obelisks. Somewhere in the noise is a way through. Once you know what to look for, picking your way through the graves is not difficult. Unfortunately, the ability to see the path system comes after attaining a certain level of familiarization. It is unlikely that the casual visitor will have much familiarity with the site. As cemeteries are not normal places of recreation, defining the path

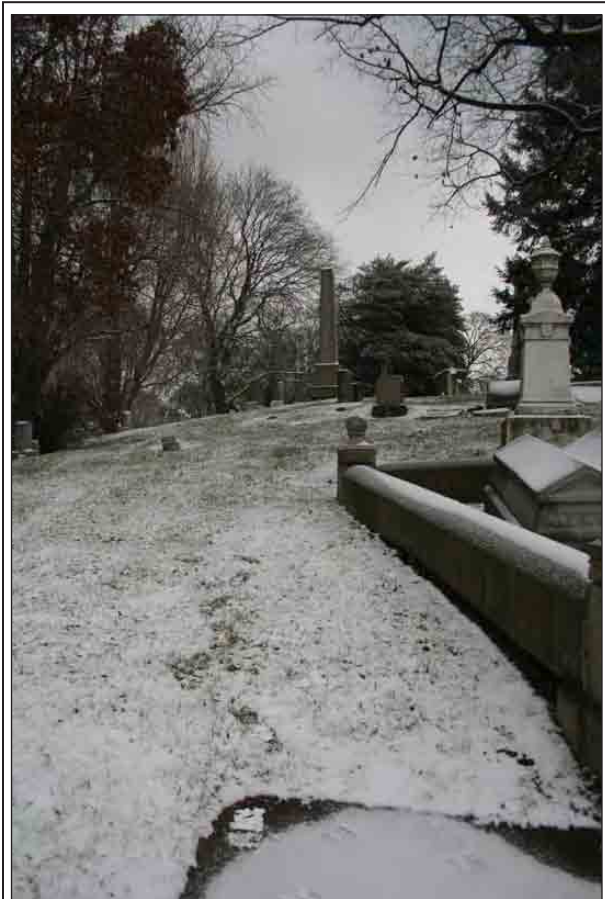


Figure 1: Where the sidewalk ends in Laurel Hill.  
Photo: A. Turner 2007.



system would go a long way towards improving visitor comfort. By defining the path system, the first time visitor could spend more time enjoying the site and less time trying to figure out where they are.

A cemetery is a sacred place for the final resting grounds of mortal remains, and it is considered disrespectful in most cultures to walk across a grave. This has become less of an issue at Laurel Hill as the site has made a transition to an historic site, and the majority of resident within the cemetery have long since lost anyone to mourn them. Visitors may be interested in the art of the markers or the beautiful viewsheds and forget the people beneath their feet. The management of Laurel Hill has a responsibility to make visitors aware that the site contains human remains and should therefore be treated with the respect and dignity befitting of a cemetery. Laurel Hill will remain a cemetery no matter how it chooses to rebrand itself and should not lose sight of its original and unchanging purpose. Defining the path system segregates the space, serving to remind visitors that this space is for the dead.

For those visitors aware that they are walking over mortal remains, it can be uncomfortable traipsing through the cemetery, not knowing if you are stepping on top of someone. A clearly marked path system would alleviate some of the possible anxiety by making it obvious that this ground is meant for walking and that ground is meant for dead people.

The path system remains within Laurel Hill. It is just not terribly easy to follow. This project started as a way to make broad and sweeping suggestions for ways to improve the way-finding system within Laurel Hill. However, turning an artist's eye towards the problem revealed that a very simple solution could vastly improve the clarity of the paths.

What is suggested is to define the paths in Laurel Hill through carefully selected landscaping. The landscape policy calls for the reinstatement of the historic landscape; however, this may prove difficult with the path system, as it was largely cobblestone and carefully groomed footpaths. These historic paths are impractical and currently beyond the reach of Laurel Hill's current fiscal situation. Instead of trying to recreate what once was, it would be better to work with what is currently in the cemetery.

The easiest way to define the paths system would be through changes in mowing patterns. One of the high priority actions for the cemetery is to reduce the frequency of mowing. If the grass in the non-path areas were allowed to grow taller while keeping the grass in pathways shorter, an easy distinction would be attained and would go a long way towards making the routes readily visible. Like a golf course, the paths could be seen as the fairway and the burial sites as the rough. This

is not to suggest that Laurel Hill should be as carefully manicured as the Augusta National Golf course, but certainly, there is little doubt on a golf course where the ball is supposed to go and where it is not.

Another way to differentiate the path system from the burial areas would be through color variation. This could be achieved through planting different types of grass or other low-lying, tread-resistant plants along the path system. Creating color, texture, and height differences would define the path system in Laurel Hill without having too heavy an impact on the visual experience.

The watercolor sketches accompanying the text serve as a way to visualize the changes necessary to define the path system. What becomes clear is that not much is needed to make the paths visible, as the paths exist and are just waiting to be called out. Looking for the paths can be a little like looking for a deer in the thicket. It is there, and as soon as you see it, you wonder why it took you so long to find the animal. Suddenly, you see a whole flock of deer. With the watercolors, the paths are perhaps over exaggerated, but what is what is obvious is that even a slight color change can be enough to separate one space from another.

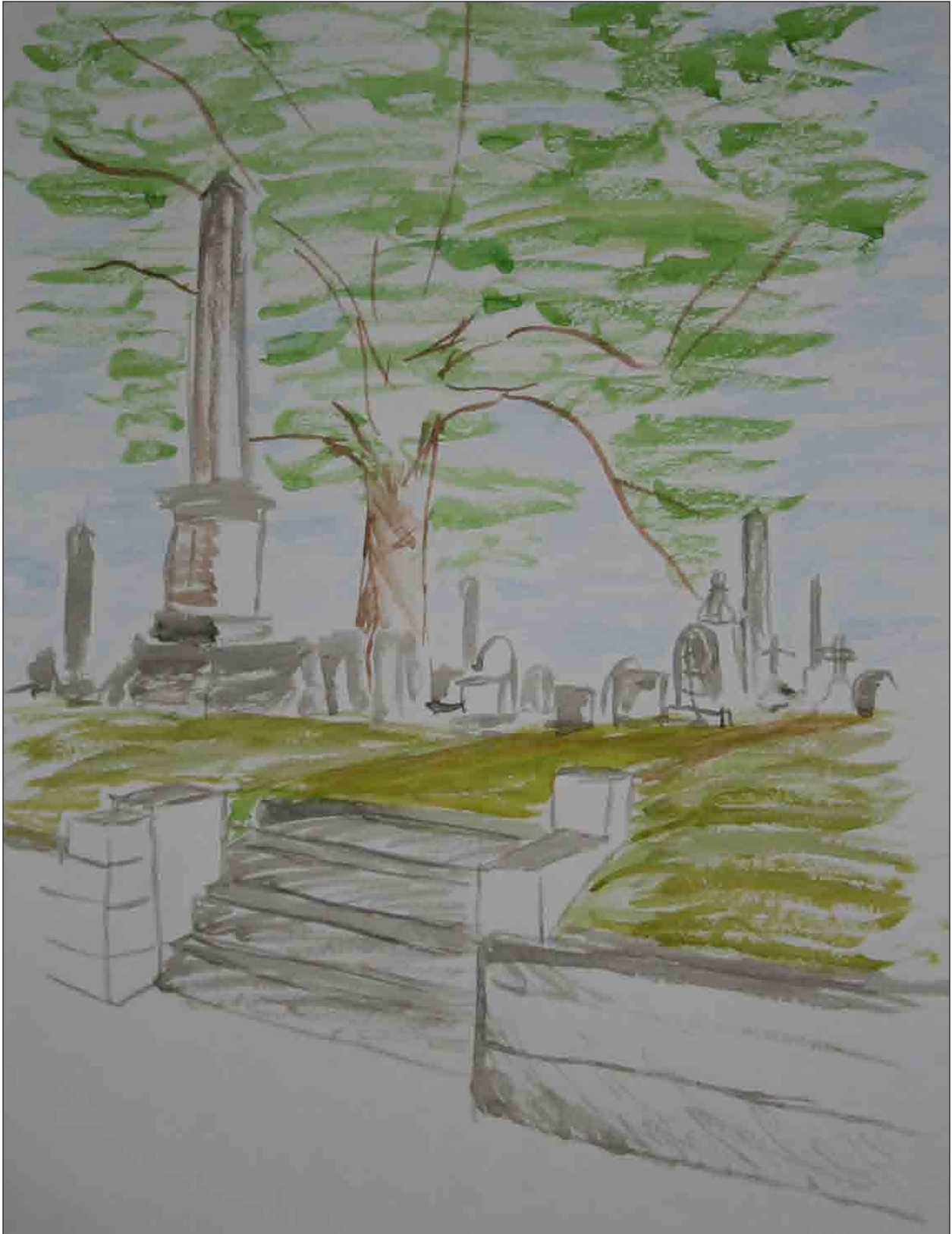
When visiting Laurel Hill, the visual experience of the place is paramount to its enjoyment. The paved roads through Laurel Hill may provide critical roads of access for maintenance staff and visitors, but it does very little in the way of enhancing the visual experience. Because the road is vital to the function of the cemetery, it is unreasonable to suggest major changes to its character. However, it is suggested that no more paved surfaces be added to the path system. Pavement of any sort, whether asphalt or concrete, seems out of place in the cemetery, like a misplaced ribbon of modernity overlaid atop an unappreciative land.

Wrapped up in the desire to preserve the visual experience of Laurel Hill is the need to maintain focus on the monuments first and the landscape next. Walking through Laurel Hill, the individuality of the place begins to reveal itself. Each plot is a testament to a family's personal style, and the personal tales told through inscriptions are a deep repository of human grief. Any measure that detracts from the monuments is a move in the wrong direction. Designed as a bucolic escape from urban Philadelphia, Laurel Hill should make an effort to enhance what remains of the landscape. The sweeping internal vistas of Laurel Hill will not be greatly impacted by a change of height in grass. A path system that is a subtle imprint on the landscape is a far better solution than a harsh slash through it.

Clarifying the path system in Laurel Hill serves many functions. Defined paths reassure the visitor they are where they are supposed to be while encouraging deeper exploration of the site. Further,

as the final resting place for thousands of people, the path system would clearly delineate that space which is for the dead from the space that is intended for the living. By using careful yet simple landscaping measures, Laurel Hill can reinstate the path system without impeding on the rich experience of the cemetery, fortifying the visitor experience and encouraging a fuller appreciation of the site.





Watercolor 1: This scene near the entrance portrays the enhancement of existing hardscaping, A stairwell leading no where is given a clear path, inviting the visitor further into the site.

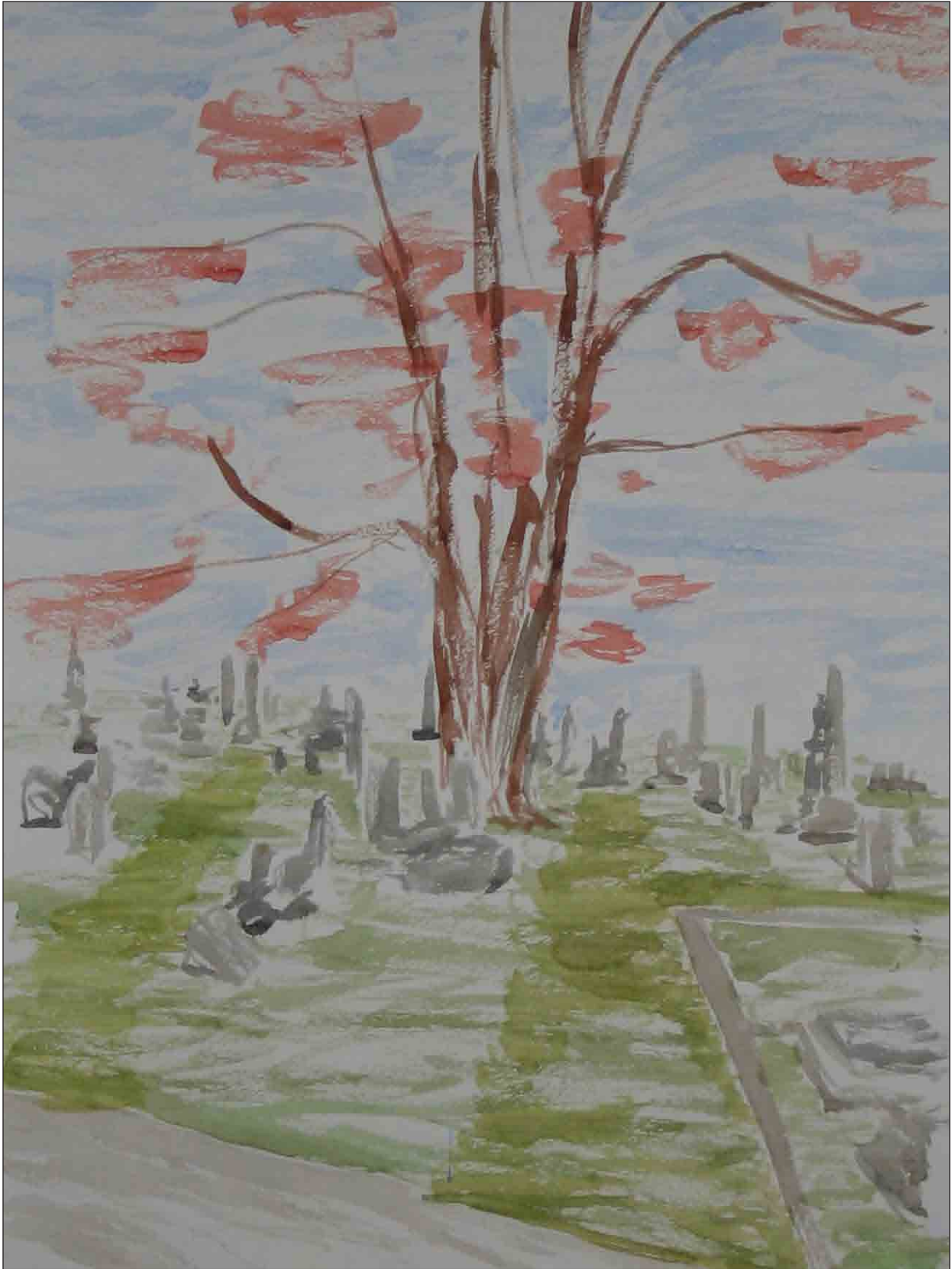


Watercolor 2: A path between the markers off the main road.

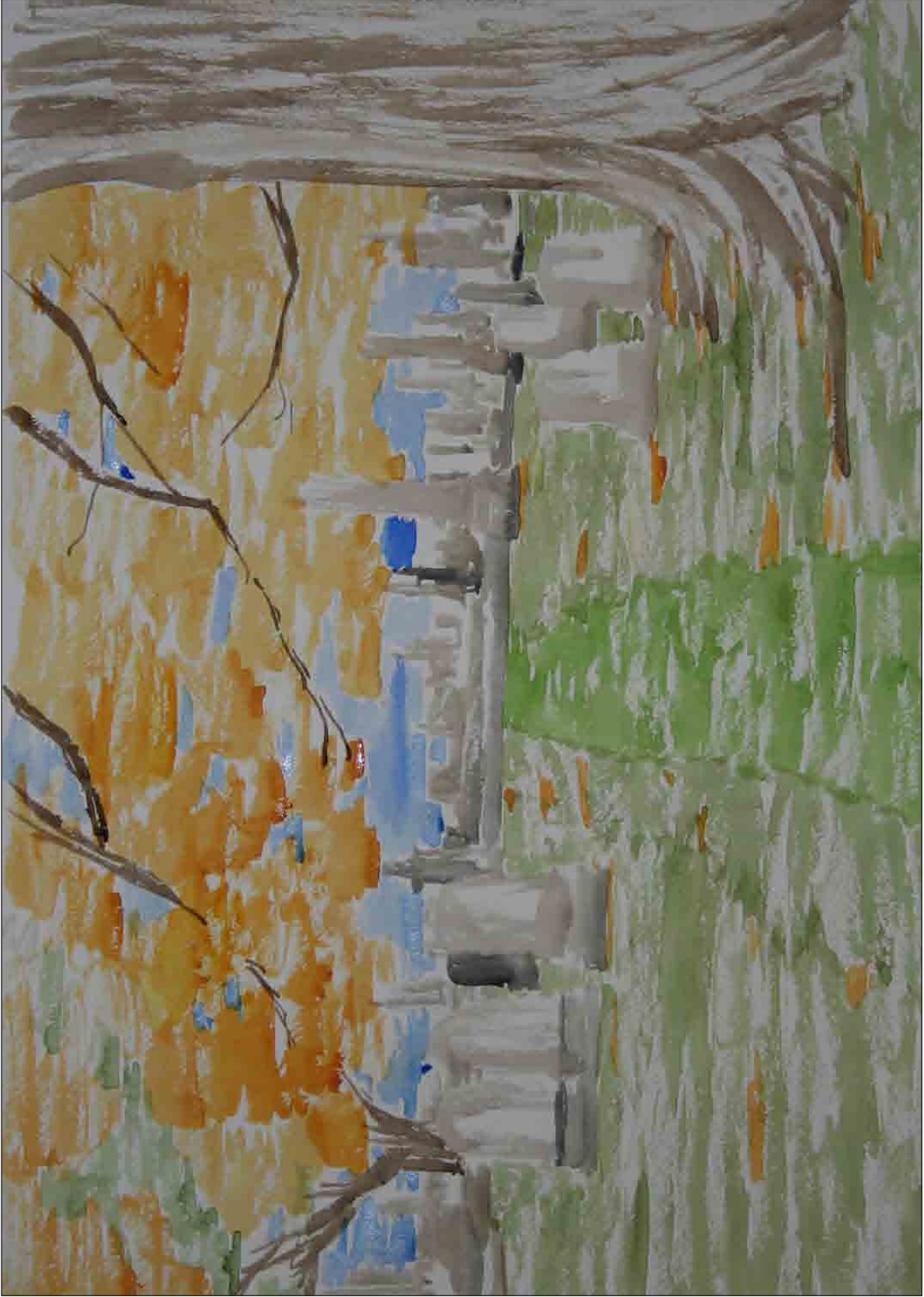


Watercolor 3: Another path through the cemetery, leading off the main road.



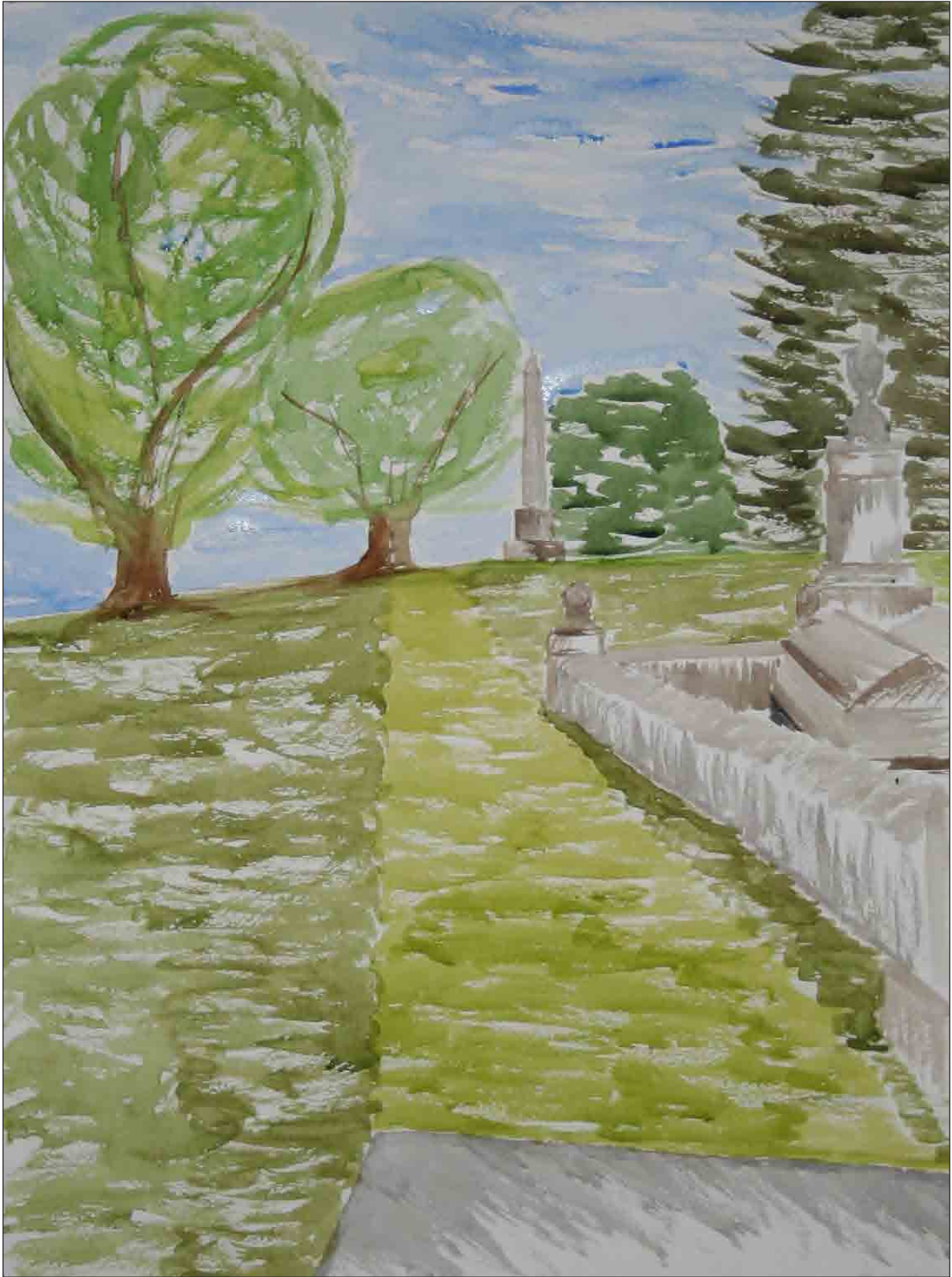


Watercolor 4: Two paths leading to other paths.



Watercolor 5: The slight difference in color is enough to make the way through the cemetery readily apparent.





Watercolor 6: Extending the sidewalk.





Watercolor 7: A simple path draws the visitor along to other parts of the cemetery.

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# The Fences of Laurel Hill

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Conditions and  
Possibilities

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Sarah L. Wade  
Dec. 18th, 2007

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