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# Fernery Interpretation Redesign: Highlighting Morris Arboretum's Collection

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An independent study project report by The McLean Contributionship Endowed Education Intern (2017-2018)

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# Fernery Interpretation Redesign: Highlighting Morris Arboretum's Collection

## **Abstract**

After over twenty years of exposure to the elements, the panels in the fernery plaza were in need of an update. Their content was not only outdated, but weathered to a point where the text had become illegible. When an interpretative panel falls into this state of disrepair it loses educational value and cannot fulfill its designated purpose. My project focused on updating the design, content, and graphics of all interpretive panels in the fernery plaza. This collaborative project was completed with the help of the interpretation committee, a graphic designer, and many other key staff members at Morris Arboretum. The end result consists of four new metal photo labels highlighting the Dorrance H. Hamilton Fernery and two larger aluminum panels that showcase Morris Arboretum's living collection. In conclusion, the addition of six redesigned interpretative panels will restore educational value to the fernery plaza by informing all visitors of the importance of Morris Arboretum's living collection and the Dorrance H. Hamilton Fernery.

## **Disciplines**

Horticulture

## **Comments**

An independent study project report by The McLean Contributionship Endowed Education Intern (2017-2018)

**TITLE:** Fernery Interpretation Redesign: Highlighting Morris Arboretum's Collection

**AUTHOR:** Jennie Ciborowski,  
*The McLean Contributionship Endowed Education Intern*

**DATE:** April 2018

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After over twenty years of exposure to the elements, the panels in the fernery plaza were in need of an update. Their content was not only outdated, but weathered to a point where the text had become illegible. When an interpretative panel falls into this state of disrepair it loses educational value and cannot fulfill its designated purpose. My project focused on updating the design, content, and graphics of all interpretive panels in the fernery plaza. This collaborative project was completed with the help of the interpretation committee, a graphic designer, and many other key staff members at Morris Arboretum. The end result consists of four new metal photo labels highlighting the Dorrance H. Hamilton Fernery and two larger aluminum panels that showcase Morris Arboretum's living collection. In conclusion, the addition of six redesigned interpretative panels will restore educational value to the fernery plaza by informing all visitors of the importance of Morris Arboretum's living collection and the Dorrance H. Hamilton Fernery.

*Fernery Interpretation Redesign: Highlighting Morris Arboretum's Collection*

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## INTRODUCTION

### **Background Information**

“The Dorrance H. Hamilton Fernery is the only remaining freestanding Victorian fernery in North America” (Darfler, 2012). This gleaming architectural masterpiece is situated next to the Arboretum’s greenhouse complex, the visually intriguing stumpery, and surrounded by an expansive blue flagstone plaza. The fernery plaza provides visitors with the only shaded, outdoor seating area away from the Widener Visitors Center. The fernery’s prestigious title along with its ideal location make it an iconic stop for many of Morris Arboretum’s 140,000 annual visitors.

The fernery plaza was installed during the 1994 fernery restoration. Many aspects of the plaza have stood the test of time and are still fully functional 24 years later. Unfortunately, the interpretative panels have not been so lucky and have become an eyesore in recent years. The quality of the panels has deteriorated greatly since installation due to exposure to the elements, inconsistent temperatures, and damage from tree litter and wildlife. The fiberglass surface cracked and faded over time causing the smaller text on the panel to become illegible. Additionally, the panels display dated information and graphics and feature an obsolete version of the Morris Arboretum logo and map (Figure 1).

Since the fernery plaza has a high volume of foot traffic, it is essential that all aspects of the plaza – including interpretation – are in good standing order. The need for updated interpretation has been met by my project which involved replacing interpretive panels in the fernery plaza with six redesigned panels. These new panels will restore educational and aesthetic value to the area and provide visitors with an enriching experience.

### **Purpose**

One might ask why interpretive labels are needed at an Arboretum. Do they aide visitor experience or distract an individual from being fully immersed in nature? I believe this is best answered by Beverly Serrell who states that, “the purpose of interpretive labels is to contribute to the overall visitor experience in a positive, enlightening, provocative, and meaningful way. Interpretive labels address visitors’ unspoken concerns: What’s in it for me? Why should I care?” (Serrell, 1996). Labels are one of many components that differentiate Morris Arboretum from a public park. We are a place of learning and our visitors have educational needs that can be met through interpretation. Taking these facts into consideration the redesign of interpretation in the fernery plaza is of utmost importance.

### **Goals**

The overall objective of the 2017-2018 Education Intern Project is to execute a redesign of all signs located in the fernery plaza. This project was accomplished by adhering to the following goals throughout project completion:

- Ensure all written content on the panels is captivating, accurate, and comprehensible to a wide range of audience ages and levels of understanding.

- Showcase graphics that will not lose value over time and that highlight the Arboretum, not individuals pictured in the photographs
- Design new interpretation with a complementary style to preexisting Arboretum interpretation
- Communicate efficiently and effectively with all Arboretum employees and outside staff collaborating on the project

## METHODS

### **Internal Collaborators**

Executing interpretation would not be possible without the cooperation of the Interpretation Committee and many other Arboretum staff members. From the initial brainstorming sessions to the final panel reviews every person helped to achieve a successful final product. Below are all of the internal Morris Arboretum collaborators that were integral to the process (Appendix A – Employee Time Breakdown).

- Interpretation Committee | Bob Gutowski, Liza Hawley, Jan McFarlan, and Bryan Thompson-Nowak
  - The core team to reference throughout the project who oversaw the entire process. All individuals contributed a significant amount of time and effort seeing the panels through to completion including, but not limited to: sparking my initial interest in the project, brainstorming sessions, developing and proofing content, and providing interpretation logistic expertise.
- *The Gayle E. Maloney Director of Horticulture & Curator* | Tony Aiello & Morris Arboretum Propagator | Shelley Dillard
  - Provided a vast source of knowledge by developing content, ensuring the accuracy of all content displayed on the panels, and providing feedback throughout the process.
- *The F. Otto Haas Executive Director* | Paul W. Meyer
  - Provided overall approval of all interpretive panels prior to fabrication and supplied engaging photography to be showcased on the panels.
- Maintenance Mechanic | Joe Mellon
  - Assisted in taking measurements and deciding sign placement prior to fabrication. Upon fabrication he will install all new interpretive panels in the fernery plaza.
- Director of Marketing | Susan Crane & Publications Editor | Christine Pape
  - Reviewed panels to ensure they adhere to Morris Arboretum’s design and branding policy and reviewed all written content.
- Director of Development | Mira Zergani & Sr. Associate Director of the Annual Giving Program | Alison Thornton
  - Ensured all donors listed in the 1994 fernery restoration were correctly attributed.

## **Living Collection Interpretive Panels**

### *Content*

The first step in this project was to decide what content would be best showcased on the fernery plaza panels. The decision was a collaborative effort that stemmed from the location of the panels and the amount of workable interpretive space. When standing in the plaza facing the largest interpretive sign, the hoop houses and greenhouse are in plain sight, but there is a clear barrier prohibiting visitors from entering. I wanted to use the panels to answer the unspoken question that a visitor might have while standing in this spot: What goes on behind the chains?

While it is impossible to discuss each and every aspect of work performed in the greenhouse area, it was possible to guide visitors along the journey a plant takes at the Arboretum. The finalized sign follows a timeline of events from acquisition, to propagation, production, and distribution. Expanding the collection of plants at Morris Arboretum is essential to the Arboretum's function, yet it was a story that had yet to be told on an interpretive panel.

Next to this panel we decided it would be best to have a panel focusing strictly on the fact that we are an Arboretum with a living collection of trees, shrubs, and herbaceous plants. It may seem trivial to need to state that we are in fact an Arboretum, but the truth is that many visitors would struggle if they were asked to differentiate the Arboretum from a public park. It is crucial to inform visitors of this difference. We have a living collection of plants that are valuable not only for their beauty in the garden but also have research, educational, and conservation value. Our collection can provide a vast range of information for those that seek it and many visitors are unaware of the bounty of knowledge available at their fingertips. By having a sign that defines us as an Arboretum and showcases both nationally recognized collections and seasonal highlights, we can begin to change how visitors perceive their surroundings and hopefully acknowledge just how unique Morris Arboretum really is.

The next step in the process was to translate a solidified topic into content that an Arboretum visitor would be drawn to read. The largest panel measures a little under seven feet in length and the other is slightly over four feet long. The sheer size of these panels alone was a double edged sword in the process. On one hand, we were provided with a vast amount of space to design giving us the ability to fully explore and develop panel content. On the other hand, we had to find a delicate balance of photos and written content. If too much text is displayed on a panel a visitor will often bypass interpretation or lose interest. If visitors are not reading the interpretive panels we have lost the opportunity to educate the public. It was decided that the best chance we had of visitor engagement was to use captivating pictures to illustrate the processes and draw in viewership. These photos are still accompanied by text but done so in the form of smaller manageable blocks of text that narrate the photo sequence. All content present in the final panels was gathered through a series of discussions with Tony Aiello and Shelley Dillard to make sure the panels correctly interpreted Morris Arboretum's living collection and the many complex processes a plant could undergo in its time at the Arboretum.

### *Design and Fabrication*

Once panel content was established the project moved into the design phase. I drew a series of original sketches and fabricated a rough draft using Adobe InDesign software. Once an initial concept was agreed upon by the interpretation committee I sent my rough designs and

content to an external graphic designer. Anne Marie Kane, owner of Imogen Design, transformed my vague sketches into beautifully illustrated panels that have an equal balance of both written content and visuals. Both signs went through a series of reviews, and thirteen proofs later we achieved a final product that all collaborators agreed could be installed in the fernery plaza (Figures 2 & 3). The finalized designs will be printed on aluminum panels. These panels will be 100% recyclable so that when they need to be replaced in the future we will not be putting a negative strain on the environment. Direct Embed Coating Systems, LLC fabricated the panels and they should arrive in April for installation in the Arboretum.

### *Installation*

Upon initial plaza inspection it was determined that even though the existing interpretation had deteriorated in quality, the stanchions had not. All stanchions from the previous signage are in great condition and will be able to be reused during installation. The new interpretive panels will be bolted on top of the existing interpretation by Joe Mellon and the old stanchions will only require a fresh coat of paint.

### **Fernery Metal Photo Labels**

The fernery plaza previously contained three outdated metal photo labels that described varying aspects of the Dorrance H. Hamilton Fernery (Figure 1). These panels will be replaced by four new metal photo labels that will be installed at various locations in the plaza. I designed the panels using Adobe Acrobat DC and styled them to match the newly installed deer fence signage. The preexisting sign content was shortened, merged, and reworded onto two metal photo labels. One label entitled “The Dorrance H. Hamilton Fernery” will be installed on the fernery viewing window. This metal photo label will have an adhesive backing and be placed directly on top of the existing interpretation in order to not further crack the glass panel. The second metal photo label will be installed using a preexisting stanchion in the bed directly to the right of the fernery and is entitled “What is a Fernery?”

A separate panel will now highlight the donors from the 1994 fernery restoration and will be installed inside of the fernery vestibule. If another fernery restoration occurs it is intended that this entire panel can be easily switched out instead of altering all plaza interpretation. Lastly, a new fourth panel will be installed in the bed to the right of the fernery. This new panel entitled “What is a Fern?” showcases the differences between ferns and flowering plants. Shelley Dillard provided content for this sign and helped to shape the text into an enticing and comprehensible interpretive panel. All metal photo labels will be fabricated by Nameplate & Panel Technology and installed this spring (Figure 4).

## **RESULTS AND DISCUSSION**

This project did not come without its fair amount of challenges. As with any collaborative effort, opinions of individuals do not always align, but it is these differences that achieve a better end result. The purpose of the interpretive panels is to reach a broad audience and it is only through receiving diverse feedback that this goal can be achieved. Additionally, I was faced with the challenge of making panels that would continue to be relevant for years to come. Unlike most museums, our collection at the Arboretum is comprised of trees, shrubs, and herbaceous plants. This means that it is not a static collection, but instead a dynamic breathing



organism which – like its audience – changes. To overcome this obstacle I focused on Morris Arboretum’s mission statement and the living collection as a whole. By not getting caught up in the finer details the panels will hopefully engage visitors for years to come.

Looking forward I would like to address a suggestion that came from a meeting with the Education and Visitor Experience Committee. Upon presenting my project I was questioned as to why the fernery plaza was the best location for a panel that addresses the definition of an Arboretum. Shouldn’t this be information that a visitor receives as soon as they enter the property? To be honest, I agree with their suggestion, and while I feel that the fernery plaza is an ideal location it wouldn’t hurt to display this information elsewhere in the Arboretum. I hope that this is something the interpretation committee can discuss and possibly implement in the future.

### **CONCLUSION**

It is often said in interpretation that “there is no final copy” (Serrell, 1996). In order for interpretive panels to be successful they must be constantly replaced, reinvented, destroyed, and created. They serve the purpose of educating an ever-changing audience and must be relevant while withstanding harsh elemental conditions. While my fernery plaza interpretive panels will not last indefinitely, I am thrilled to be able to provide future Arboretum visitors with a meaningful educational experience. This project has truly enriched my time at Morris Arboretum and I can only hope the end result will do the same for others.

### **REFERENCES**

- Darfler, J. (2012). *Morris Arboretum of the University of Pennsylvania | The Dorrance H. Hamilton Fernery*, [http://www.morrisarboretum.org/gardens\\_buildings\\_fernery.shtml](http://www.morrisarboretum.org/gardens_buildings_fernery.shtml)
- Serrell, B. (1996). *Exhibit Labels: An Interpretive Approach*. Walnut Creek, CA: AltaMira Press.

### **ACKNOWLEDGEMENTS**

Designing the fernery plaza interpretive panels has been a transformational and rewarding component of my internship at Morris Arboretum. I would like to express my appreciation to each and every individual who make this project possible. Special thanks to the Interpretation Committee (Jan McFarlan, Liza Hawley, Bryan Thompson-Nowak and Bob Gutowski) for your guidance, encouragement, and direction throughout the project. To Tony Aiello, Shelley Dillard, and Paul Meyer – thank you for being bountiful sources of knowledge and providing stunning photography to display on the panels. Lastly, thank you to Anne Marie Kane, owner of Imogen Design, whose graphic design work transformed my vision into a reality.

**TABLES AND FIGURES**

<b>Internal Collaborator</b>	<b>Estimated Effort (Hours)</b>	<b>Formal Meetings (Hours)</b>	<b>Total (Hours)</b>
Jennie Ciborowski	80	11.5	91.5
Jan McFarlan	5	4.25	9.25
Liza Hawley	5	4.25	9.25
Bryan Thompson-Nowak	5	3.75	8.75
Bob Gutowski	3	3	6
Tony Aiello	2	3.5	5.5
Shelley Dillard	2	6	8
Alison Thornton	.25	.5	.75
Mira Zergani	.25	.5	.75
Paul Meyer	2	0	2
Susan Crane	.5	0	.5
Christine Pape	.5	0	.5
Joe Mellon	5	.75	5.75

**Table 1:** Employee Time Breakdown

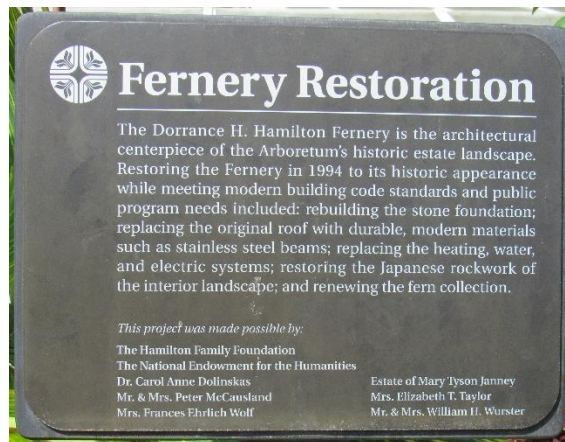


Figure 1: Condition of the signs residing in the fernery plaza circa 2017

# Expanding Our Living Collection

*Over 12,000 plants from more than thirty countries*

## ACQUISITION

Through domestic and international exploration, seeds, cuttings, and seedlings are brought to the Arboretum and identified, numbered, and entered into our living collection.





## PROPAGATION

The greenhouse is the point of entry for all collected seeds, cuttings, and seedlings. Plants are grown from seeds or propagated by cuttings in the greenhouse. Some plants require special treatment provided by the greenhouse to produce the best results. During this time, propagation methods are evaluated.





## PRODUCTION

Once propagated, plants are either kept in the greenhouse for a few months or moved outside to the field. The plants and the growing conditions are closely monitored for pests and diseases. At this stage, plants are evaluated for vigor and superior horticultural traits.





## DISTRIBUTION

Plants are grown until they are large enough to plant throughout the Arboretum or share with other institutions. We strive to provide rare and unusual surplus plants to arboreta, botanic gardens, plant nurseries, and community organizations.





Morris Arboretum  
UNIVERSITY OF TORONTO

Figure 2: Expanding Our Living Collection Finalized Panel



# What is an arboretum?

*It is a museum with a living collection of trees*

The Morris Arboretum exhibits more than 12,000 labeled plants, including rare and endangered species. Trees, shrubs, and herbaceous plants have been collected from the temperate floras of North America, Asia, and Europe. Some of our collections are nationally recognized for their educational, research, and conservation value. Our historic collection of trees traces its foundation to John and Lydia Morris's interest in plants from around the world. We continue to carry out the Morrises' legacy each day by caring for all plants at the Arboretum and continuing to expand our living collection.



## Seasonal Highlights

**Witchhazel**  
*Hamamelis*  
Witchhazels provide pops of color and waft a sweet fragrance through the air in the arboretic dormant winter landscape. Witchhazels bloom starting in October and continue through late March.

**Flowering Cherry**  
*Prunus*  
Our flowering cherry collection puts on a full floral display from late March into early May. Small fragrant flowers appear in varying hues of pink and white, before spring foliage emerges.

**Magnolia**  
*Magnolia*  
Soft, velvety magnolia buds unfurl to reveal showy and elegant flowers adorning the spring landscape. Magnolias are diverse in leaf shape and form and provide great wildlife value throughout the year.

**Roses**  
*Rosa*  
The Rose Garden is home to a range of brightly blooming species and varieties. Catch a wide array of colorful blossoms bursting open in the late spring and lasting until the first hard frost.

## Nationally Recognized Collections

- Fir**  
*Abies*
- Oak**  
*Quercus*
- Maple**  
*Acer*
- Holly**  
*Ilex*




**Figure 3:** What is an Arboretum Finalized Panel

**What is a Fernery?**

Fernery is a Victorian word meaning a place or structure where ferns grow; also a collection of ferns, under glass or outdoors. Many ferneries were built during the nineteenth century and demonstrated technological innovations in heating and architecture as well as horticulture.


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**The Dorrance H. Hamilton Fernery**

The architectural centerpiece of the Arboretum's historic estate landscape was built in 1899. It is the only remaining freestanding fernery in North America. Today the fernery experience remains true to John Morris's design. Step inside and walk into a serene atmosphere filled with tranquil waterfalls, reflecting pools, and masses of emerald ferns.

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**What is a Fern?**

Ferns appeared 200 million years before flowering plants evolved. This makes them older than most land animals and far older than dinosaurs!

Ferns reproduce via miniature cells called spores. They do not have flowers, fruits, or seeds, but like flowering plants, they have a vascular system to conduct food and water.

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**The 1994 Fernery Restoration was made possible by:**

The Hamilton Family Foundation

The National Endowment for the Humanities

Dr. Carol Anne Dolinskas

Mr. & Mrs. Peter McCausland


Mrs. Frances Ehrlich Wolf

Estate of Mary Tyson Janney

Mrs. Elizabeth T. Taylor

Mr. & Mrs. William H. Wurster

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**Figure 4:** Finalized Metal Photo Labels