

Still Images of Woody Plants IMLS Grant Proposal

Still Images of Woody Plants from Sterling Library at the Morton Arboretum
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Abstract: A collection of categorized still images from the Morton Arboretum in Lisle, IL has not been digitized. Most of the photographs and slides have been taken by staff with remaining photos donated. These are not currently part of any display or online collection. It is important to digitize this collection to show the history of the Morton Arboretum plants from a unique perspective as well as to ensure no further loss of quality as the images age.

The Sterling Library at the Morton Arboretum is the creator of the physical and digital collections held by the Morton Arboretum. The Morton Arboretum was founded in 1922 and continues to operate today as a 1,700 acre outdoor living museum full of trees, vegetation, and nature related educational facilities. Although physically located in the southwest suburbs of Chicago, the Morton Arboretum shares its knowledge online with the world through a variety of useful online tools and collaborative catalogs. The Sterling Library and the Morton Arboretum work together to provide online digital content with the library maintaining the history and archived collections while the museum/arboretum maintains the science and educational platform. Content provided by the museum or library can be shared with the other, though the website addresses and needs are different and remain separate.

Project Narrative: The collection titled Still Images of Woody Plants is a compilation of photographic images compiled by the staff of the Morton Arboretum during their courses of employment. This collection was titled by the staff and is descriptive of what types of images it contains. Examples of some woody plants that are in this collection are the dwarf white fir, a lavender twist, and a black tupelo. The binding agent for this collection is two-fold. All of these plants are currently in residence at the Morton Arboretum and all of these images were taken by permanent and temporary staff of the Morton Arboretum.

This collection is currently housed in boxes where employees have been adding their contributions over the last 100 years. Since the age of the items in this collection varies, the collection is at various risk levels for deterioration with some of the newer items at very low risk and other older items at moderate risk. At the time of writing, all items are currently in good condition. The collection should be repackaged and stored properly to ensure these items last for 100 more years. Proper storage would require the purchase of new organizational containers.

This collection was started in 1922 when the Arboretum was founded and contains some formats such as glass lantern slides that cannot be handled by the general public. As such, this collection has remained in boxes for several years while new employees kept adding their photographs and slides. Because of the rich history of the Morton Arboretum, the images of woody plants taken over the years have become important to the educational programs hosted at this venue and those accessing the collection online.

There are two points of accessibility for most of the collections here: the Morton Website, which offers searches by genus, plant name, title, and Boolean, and the Sterling Library digital collections/ digital library specific site, ACORN. After the collection is digitized, the metadata would be added to the existing collection management system created by the Morton Arboretum called ACORN. Low resolution images are provided on the website for educational use on websites, PowerPoint presentations, or student papers. High resolution images are made available online for personal, educational, research and publication purposes for a fee. The high resolution images are the same resolution as the archive images.

The intended audience of this collection is educators and general public interested in plants. There is a large part of the science and nature community that would benefit from this collection being placed online. Since this collection contains almost 100 years of plants, it would be beneficial to those communities to see how plants have changed and adapted when current photos are compared to some of the early photos. Items are categorized with the common name and the genus/species scientific name. Linking plants like this could help scientists make connections, but also help the general public determine what plant they like for their garden and order the right one from a mail order catalog or website. Many of the woody plants in this collection are small or dwarf versions which are becoming very popular in urban gardening. Since there are no gardening collections aimed at urban or small spaces, these picture identifications and flourishing trees in scenes could become a great resource for an untapped community niche.

The Sterling Library has determined that there are no existing collections such as these on other arboretum library or similar websites. Although the subject of woody plants can be found on a number of websites, including arboreta and even seed catalogs, the unique perspectives of the employee photographs make these images different from stock photos. These images represent not just the plant, but the lifestyle of working with plants, an underrepresented area in digital collections as a whole. This collection could be of particular interest to gardeners, historians, writers, and scientists.

The Still Images of Woody Plants collection contains 20,000 slides of woody plants, mostly color, 1,000 photographic prints in various small to medium sizes, 1,000 negatives, black and white, and 100 glass lantern slides. Items are dated from 1922 to 2017/present. Items are currently all in good condition. Glass lantern slides would require two separate scans per slide to capture the true content and color. Because of the fragility of these items and the variance of esthetics as some are hand-painted, the digitization for some requires special handling.

This project is being submitted for the IMLS Grant because many of the goals of the Sterling Library at Morton Arboretum go hand in hand with the goals of the IMLS Grant. The Morton Arboretum participates in Learning in Libraries offering participatory learning through classes and events. Programs on how to take photos of plant life led by the employees could evolve from this collection being digitized. This collection could help others identify woody plants they find in current outings or in images they hold from

the last 100 years. This collection is designed to enhance the knowledge of the viewers regarding the specifics of woody plants, to display the trends of those tending plants for the last 100 years, to display unique styles of photography and the way capturing images has changed, and to inspire others to continue this collection for the future. This collection is also an example of Education Ecosystem showing how communities, educators, and families can work together collaborating on a common goal. For this collection, the goal is preservation of the history of these plants for the last hundred years. This project also matches with the goal to Develop Cross-Disciplinary Collaborations that advance library services nationwide. The desired outcome is for this collection to be shared online with open access for all to learn the educational and historical value of these images.

The national impact of sharing this collection is that it would become a resource for other libraries, a resource for education, an inspiration for community and staff to take photographs of similar subjects, and to share cross-disciplines with science, history, and archives who might each have different uses for these images. Location functions are available to be linked between content and the map of the arboretum so users can see the general area the photo was taken on a map if that data was recorded. This feature would allow users to come take a photo at the same place or plant as a photo from 100 years ago. For online users, this collection provides the same in-depth look at various plants from the last 100 years from the convenience of home. Online content is not specialized for local users or members and is available for anyone to view.

Deliverable Descriptions: From each item being digitized a high resolution image for digital preservation and a low resolution image for the website will be created. High resolution images will continue to be stored on a server repository at the Sterling Library.

Project Plan: The anticipated goal is to complete the digitization in a three-year plan. The Gantt chart timeline is attached with this proposal document. Year one focuses on hiring and training staff, purchasing and installing new servers for needed storage, and beginning to scan and create metadata for the items in the collection. The plan is to begin with the most difficult and time-consuming pieces of the collection in year one. Year two is a continuation of digitizing slides and creating metadata. Year three is the finalization of the digitization process. Once all items are scanned in and metadata created and checked, these items will be uploaded and linked to the existing interfaces. The collection will be checked for any integration between the Sterling Library ACORN site and the Morton Arboretum museum site and those connections will be made. Some features like location of where the photo was taken at the arboretum or genus/species identification are specific to the museum and this metadata, if existing, would be added in year one at metadata collection and recording. As part of the launch of this collection, the Sterling Library at the Morton Arboretum plans to hold a special event to draw attention to the new educational materials. This brief event displaying some of the collection at the library will draw a close to the project and offer opportunities for communication with arboretum staff who have taken the photos. See attachment Gantt Year 1, Year 2, Year 3.

Project Management: The Sterling Library already employs some staff who would fit the needs for this project. Additionally, the Morton Arboretum does occasionally hire library staff for special projects that may be concluded before this project's needs begin offering a number of employees who are available and already trained. For the tasks requiring a library degree, these would be the first candidates offered the positions, followed by a post onto the careers page of the Morton Arboretum website. Volunteers will also help with various projects at the library and the arboretum. Since the number of volunteers varies, these optional unpaid employees were not considered in budget or timeline. If a large number of volunteers are trained to scan files, this project could come in under budget or finish earlier than anticipated.

The staffing needs for the project are a Project Coordinator, Librarian, Library Tech, Information Technology Manager, Web Manager, Advertising Coordinator, Library Assistants, Digital Collections Librarian, and Media Relations. The Information Technology Manager is a role that would be taken by current Morton Arboretum Staff. This position is listed on the budget as a Shared Employee of the Sterling Library. Temporary project hires would include Advertising Coordinator and two Library Assistants. The Project Coordinator will be in charge of managing this program. As listed in the budget, the Project Coordinator will be in charge of setting up the program in year one, checking in quarterly with employee progress throughout the duration, and attending all events regarding the project. In year three, the Project Coordinator will resume a full-time role as employees are finalizing their contributions and the collection hosting event will take place. At the completion, the Project Coordinator will prepare the collection to be properly stored in the Sterling Library archives on site. A list of tasks used to determine staffing needs and time requirements is attached for reference, see Goals.

Technical Specifications: The digital conversion of the images would be completed using two Epson Perfection V330 scanners already owned by the Sterling Library. The maximum optical resolution for this machine is 4800 dpi x 9600 dpi. All items in this collection are within the maximum size constraints of 8.5 x 11.7 inches. Color depth is 48-bit color. All items would be scanned once through as TIFF files for highest resolution using a descriptive naming style. Glass lantern slides require two scans in order to capture the image at different light and resolution. Files would also be converted and saved as a second low resolution JPG files. Maximum height for .jpg files on the ACORN website is 500 pixels. High resolution scans are anticipated to be 2800 ppi. Adjustments can be made if needed after an initial scan is done on each type of image. A minimum scanning resolution requested for this project is 600 ppi.

The Sterling Library has an existing content management system and website. The ACORN management system URL is <https://acorn.mortonarb.org/>. The ACORN system from the library shares data with the Morton Arboretum website allowing the collections to be linked from both directions. The preservation of these old images at the bit level is a priority for this collection and part of the equipment budget goes toward a permanent repository for storage. The images in this collection share a relationship to each other by subject, by location, and by method of capture.

The ACORN system was developed specifically for Morton Arboretum. This interface allows for a number of special metadata fields such as common name, scientific name, identifier, format, status, reproduction, dimensions, extent, type, creation date, description, keywords, Library of Congress headings, related collections, and location, to name a few of the most common. Metadata creation through this application is easy to learn and quick to complete. The fields can easily be cross-walked to other databases if the need should arise. See attachment ACORNexample for a detailed image.

Digital Storage and Delivery: New storage media will be purchased to store this collection. All collections are hosted on site at the Morton Arboretum. Additional hard drive and server dedicated storage would be needed to house the low resolution, high resolution, and archive files of this new collection. The budget for these servers is based on the current price of the needed server and hard drive storage. Once the project has started, the Information Technology Manager will find a server with the needed requirements on the lowest available price. The needed 2Tb storage and server are not brand specific. All processing requirements will be matched and compatible with various existing servers on site at the Morton Arboretum. Suggested purchases at this time for additional rack servers are the Dell PowerEdge R330 rack servers with DDR4 memory and PCIe Gen3 I/O. Rack servers of this type range between \$800-1100 each.

Rights Statement: All rights to this collection belong to the Morton Arboretum. These still images were taken by employees during the course of their employment with the Arboretum and are property of the Arboretum. There are some supplemental images that have been donated. In some collections held by the Arboretum, rights are shared between researchers and the Arboretum, as listed on a disclaimer on the website. That general disclaimer would be placed on each webpage to keep with the consistency of the collections across the site, even though in this particular collection, all rights are owned. Sterling Library and the Morton Arboretum offer the low resolution files at no cost for educational purposes only. Some high resolution images are offered to be used in textbooks or printing for a fee. All online content may be accessed and viewed for free. For information regarding fee schedules or the use of image rights under the educational provision, please contact the Morton Arboretum.

Budget: The total cost for this project over the course of three years is \$927,647. The institutional contribution from Sterling Library is expected to be \$468,301. The requested amount from the IMLS Grant is \$459,346. This is a 1:1 cost share ration. The budget accounts for salary increase among consistent staff. Some staff salary are shown in gray on the budget as those staff will not be used for more than one year of the three-year plan and will not receive a salary increase from year to year. The funds requested from the IMLS Grant will be spent on travel to/from IMLS grant workshops, equipment to house and store the collection permanently, fringe benefits for employees, and a one-time hosting event of the physical collection before it goes into archive storage. The 32% facilities cost will be shared 1:1. See attachments Budget Year 1, Year 2, Year 3, Budget Total. Portions of the Sterling Library funding may come from trusts of the Morton Arboretum or Morton Arboretum location membership fees. If there are volunteers capable of filling any staffing needs in this project or for other reasons this project comes

in under budget, the remaining amount of the requested IMLS budget portion not spent would be returned for the organization to redistribute to another project.

Usability: The usability for ACORN is already completed. The plan for this project is to input the Still Images of Woody Plants collection into the existing series of collections held by the Sterling Library at Morton Arboretum. Upgrades to content and further usability studies are completed under existing library budget and planning. No additional fee or testing will be required. Additional input from patrons at the reveal event could help the library staff to choose which photos to feature on the website display carousel as highlights for the collection.

Project Evaluation: This project will be evaluated by the Project Coordinator several times throughout the process to make sure employees are completing tasks within budget and time constraints. Quality checks of scans and websites will be done by staff dedicated to quality assurance before site goes live. After site is live, project updates will be completed by existing IT staff. At each interval, progress will also be checked against the IMLS goals to ensure significant national impact and realistically address growth and sustainability. Once the project is complete, checksums and other preservation verifications will be performed under regular library operations. Maintenance of the collection on the website and the equipment to house the collection will be added to the current operations budget held by the Sterling Library.