

Archiving Horticultural Legacies at Public Gardens

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ABSTRACT

Digital media offers a unique set of properties which are not being utilized to their full potential at public gardens. Digital repositories along with videography and technology have existed in organizations such as universities and private industry for decades as a means to “capture, archive, and pass down institutional knowledge” (Doctor, 2008). Capturing intellectual capital from senior level employees before they retire is vital to preserve the integrity, functionality, and relevancy of public gardens. As senior level horticulturists retire from public gardens, demand for new specialty gardeners increases. While the field of horticulture has seen reduced interest from younger generations over the past three decades, the search for experienced candidates to fill these positions becomes more and more difficult. How can Public Gardens fill the generational gap between senior level employees and entry level gardeners? How can Public Gardens secure their valued employees’ intellectual knowledge to preserve the horticultural legacy that allowed them to accomplish their missions?

Alongside plant collections, a Public Garden’s most valuable asset is their employees. Preserving the legacy of these employees through a digital media archival process is the best practice to ensure institutional knowledge is successfully passed down through generations. Using a videography model appeals to younger generations that are accustomed to learning via technological means. Younger generations are now assuming management positions formerly held by baby boomers who have retired (Hillman, 2013). This results in entry level employees taking on the responsibilities of former senior level employees, without the benefit of a

mentorship to teach them best practices or necessary management skills. The question then becomes, how can we prepare entry level gardeners without the luxury of a mentorship to take over specialty plant collections?

I decided to address this question by archiving the horticultural legacy of the Cornell Botanic Gardens Robison York State Herb Garden through digital media. I had several meetings with Drs. Don Rakow and Sonja Skelly (my advisors), Pam Shade (the curator), and Kathy Vidovich (the horticulturist taking over from Pam). In these meetings we discussed details of the project including deliverables, length of time, scheduling, methods and procedures, and intentions.

Through regular communication, we were able to achieve the most important components of this collaboration, which resulted in positive outcomes. Initially, Pam Shade felt uncomfortable with this project, and it took many conversations and flexibility to make sure she was up to date and willing to participate in the process.

Alongside communication, this project required a high level of organization and scheduling skills. Pam Shade did not have a fixed schedule, and it varied depending on the weather. We had to schedule meetings week by week, rather than long in advance. This made Pam feel more in control, and that I was less invasive in her daily routine. Once all of our meetings were held and logistics were flushed out, this project required equipment. The materials required to archive horticultural legacies through digital media were: a Macbook Pro laptop with iMovie for video editing, a Panasonic 4K video camera, a tripod, a microphone, a gimbal, and an adapter with an external drive to hold and transfer all of the footage taken from the camera to the laptop.

Methods and procedures were consistent throughout the process despite having to return home in the spring semester due to the COVID-19 pandemic. In the fall semester, Pam and I would email back and forth to communicate. We would discuss when we would meet that week, and what topics we would talk about and capture via video. I would send her a list of questions beforehand so that she could prepare any answers. Once we met, we would spend two to three hours discussing the chosen topic, and taking video of the garden, materials, processes, and techniques. After we were done shooting footage for the day I would organize and label all of the videos into folders.

We would then collaborate on editing a script for that topic via Google Docs to fill in any information gaps we forgot to cover during the footage session. I would write a script and Pam would edit it. I would then compile the videos and narrated scripts into a coherent instructional video in iMovie. This resulted in five instructional videos on how to archive the horticultural legacy of the Robison York State Herb Garden. The five videos that were produced based on this project were: Seed Selection, Plant Propagation, Fall Clean Up, Spring Planting, and Background and Benefactors. These five instructional videos vary from 6-12 minutes in length, and are intended to help train new gardeners in maintaining the Herb Garden in lieu of a mentorship. This project successfully archived the horticultural legacy of Pam Shade and Robison York State Herb Garden for future generations.

BIOGRAPHICAL SKETCH

Joy McCusker is a Professional Master's Degree student at Cornell University. She specialized in Public Garden Leadership in the College of Agriculture and Life Sciences while conducting this project. Before attending Cornell University, Joy completed her undergraduate degree in Agriculture and Natural Resources at the University of Delaware. Joy was selected to be a summer scholar in 2017 at the University of Delaware. It was while she archived the horticultural legacy of the Chrysanthemum Festival at Longwood Gardens that she knew she wanted to pursue a career in Public Gardens.

DEDICATION

This project is dedicated to all of the curators who have spent their livelihoods cultivating, honoring, and tending to the plants and gardens that have shaped our society and culture today.

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ARGUMENT

Using digital media allows one to record decades worth of learned techniques and best practices and compile them into organized, instructional videos to show younger generations. This eliminates the need for mentorships that previously were necessary to provide for knowledge sharing. Traditional methods of teaching required a minimum of a year-long mentorship to get the trainee to experience all four seasons and longer schedules. By recording these practices and reducing them to focused instructional videos, trainees can learn all of the required methods in days, rather than years.

In addition to video repositories archiving specialty techniques, schedules, and practices that make Public Gardens unique and successful, archiving legacies encourages knowledge sharing across fields and departments. Enhancing internal transparency strengthens an institution and allows it to become more resilient in facing challenges such as this year's COVID-19.

Coronavirus forced businesses to allow only essential employees to work for several months. When essential employees from one department have to take over the duties and responsibilities of categorized “non-essential” workers from another department, how can they transfer knowledge and best practices without being together in person? This situation exemplified just how important archiving knowledge is for institutions to adapt to challenges.

Archiving horticultural legacies through digital media accomplishes three major goals:

1. Capture and archive explicit knowledge that would otherwise be lost in the generational gap between employees with seniority and entry level employees.
2. Develop and document processes, schedules, and techniques that enable specialty gardens and plant collections to reach goals successfully.
3. Encourage cross-departmental, generational, and interdisciplinary knowledge sharing and transparency to strengthen the integrity, legacy, and environment of the institution participating.

The process of legacy cultivation and documentation promotes organizational preservation by requiring support from the entire institution to “break through the boundaries of established knowledge” Seidel and Fixson (2013; p. 171). The instructional videography model of knowledge archiving is effective in capturing entire scopes of knowledge. Video allows trainees to *hear* instructions, *watch* instructions, and *read* instructions via one resource. This is a more efficient knowledge transfer system than isolated written instruction (which is a more traditional form of teaching), or in person training (AKA mentorships/internships). Audiences can also rewind and rewatch these videos as many times as they need to without inconveniencing or slowing down their would-be mentors.

Participating in the process of legacy archiving is the most effective route to ensure that institutional knowledge is not lost with the valuable employees who will inevitably retire. Public Gardens are experts in curating and cultivating plant collections. It is important that they also cultivate employee legacies and institutional knowledge for the stability of their mission and

vision moving forward. Employees are a company's most pivotal asset. Without their knowledge preserved, organizations will fall victim to the generational gap that ultimately leads to knowledge loss and inconsistencies in best practices, goal achievements, successful displays/collections, and overall preservation of plant species and Public Gardens alike.

Public Gardens can participate in the archival process by consulting a legacy management archival team or expert. The process for archiving horticultural legacies can vary depending on the type of practice you are trying to document. For example, I archived the horticultural legacy of the Chrysanthemum Festival at Longwood Gardens. My team was able to create five instructional videos on how to archive this in the three summer months leading up to the Chrysanthemum Festival in October-November. This process was intensive and confined to those months because of the amount of techniques required to archive during that time. We were able to document the schedule for the rest of the year without recording it in present time.

This process looked very different when I conducted it at the Robison York State Herb Garden at Cornell University. My task was to archive the horticultural legacy of the Herb Garden and its curator of fifteen years, Pam Shade. The Herb Garden being a year round attraction rather than a two week display required a different process to achieve a successful archive. This project did in fact take me the entire year to document. The Herb Garden is outdoors, and there are different practices, techniques, and schedules required to curate and maintain it in all four seasons. I had the honor of shadowing Pam Shade for the 2019-2020 year to learn and document how she cultivates such a specialty garden. Processes to document in this garden included but were not

limited to: seed selection, plant propagation (both from seed and cuttings), spring planting/design layout, winter clean-up, along with the history of the garden. This was in stark contrast to the processes I documented at Longwood Gardens that included but were not limited to: grafting, stem twisting, soil mixing, and designing floral arrangements/shapes.

Every legacy archival project will look different in regards to length. To document the entire scope of a legacy can vary from weeks, to months, to a year. The number and length of instructional videos will also vary depending on the content necessary to capture in each one. It is hard to give a blanket amount of time to expect this process to take, since plant collections and their curators are so individualized in their history, maintenance needs, and specialty requirements. Predicting the amount of time that the archival process will take is between the archival consultant and the Public Garden client.

While the videography length is different for each legacy, the process for organizing a documentation project is a consistent one. Once a Public Garden shows interest in a project like this, I recommend that they reach out to an archival consultant or specialist. I recommend this rather than hiring from within because to archive a legacy in its entirety takes a variety of learned skills such as: videography/photography, editing, research, interviewing skills, collaboration and communication experience, organizational aptitude when dealing with explicit knowledge that lives inside of someone's mind, rather than documented in writing.

STRATEGIC STEPS

If the Public Garden decides to hire externally, they must communicate these details and needs to the consultant:

1. Initiate interest: Have you ever participated in a project like this? If so, how have you documented your legacies up to this point? Do you have digital repositories already set up, e.g.: a library or online database? Why do you want to participate in this process?
2. Define content: Be specific: What plant collection/collections do you want archived? Name the display or garden, the curator, and details about the maintenance required to cultivate.
3. Identify Audience: Are these videos more documentary for the garden to keep, or instructional to share with new employees? Is this legacy archive going to be used to train new gardeners? Will these instructional videos be used to convince donors to fund plant collections? Know who you want the audience of these videos to be so that the consultant can have a clear structural vision before having the first consultation meeting.

Through my experience managing and archiving legacies at public gardens, I have created strategic steps to take to achieve successful multigenerational documentation. Note that there is a distinction between “clients” and “curators”. Clients are referred to in this paper as department heads and supervisors who are interested in an archival project. Clients are not included in the archival process past setting up the initial conversations and contracts. Curators are the gardeners whose legacies will be archived. They are the focus of the project and hold all of the institutional

knowledge. Below are the steps I suggest consultants take to ensure a successful legacy archival process:

1. Step One: hold an initial client-consultant meeting and discuss:

- Which legacies does the Public Garden want to archive, and why?
- Who is the curator or gardeners in charge of maintaining these collections?
- How long does the client expect this project to take?
- Please provide details about the specialty garden/collection. The more context the better.
- Who is the audience for this archival project? Offer three options for archival audience:
 - Entry Level Gardeners who will watch an instructional video series.
 - Donors who will watch the videos for funding purposes.
 - Visitors who will watch the documentary style videos as an education/promotional video.
- What deliverables does the client expect to receive? Discuss results and deliverables in depth to avoid confusion or dissatisfaction.
- Discuss financials of the project: salary requirements and contract details.

2. Step Two: Hold a joint meeting with the client and the curator expected to participate and discuss:

- Is the curator comfortable participating in a project like this?
- How much does the curator know about the process and project?

- Discuss the details of the process: explain that this process is a non-invasive communication based archival management project meant to honor the curator's legacy.
 - How does the curator see the project going in contrast to the client who set this up? Are there details that need to be hashed out?
 - This includes schedules. If this will inconvenience or slow down daily work, who will manage this, why we are doing it, how long it will take, and the level of participation needed to successfully document the legacy.
 - Do the client and customer expect the same deliverables?
 - Are there special requirements that must be met to make the curator comfortable?
 - This can include talking on camera, being filmed, scheduling needs, coworkers and volunteers being involved, and appropriate credit.
3. Step Three: Hold a private meeting between the consultant and the curator and discuss:
- What is the yearly schedule like?
 - Discuss what the curator's year looks like. Do they do equal amounts of work in all four seasons? Can this be captured in three months or does it have to be filmed over the course of a year?
 - What are the major processes and techniques that are most important to pass down to the next generation?
 - When going through the yearly schedule take note of the most important or challenging aspects of maintenance and curation. What is the lifespan/cycle of the collection? What makes it unique?

- Is the history of the garden important to capture?
 - How much is already documented and known about this garden that we can pull from and incorporate? Where are those resources, and what is most important to include?
 - What historic/iconic photos exist that can be incorporated into the videos?
- Develop multiple topic videos. Between 5-10 topics should be named to make instructional videos about.
 - Make sure to get the topics and their rough schedules/time of year/
- Discuss what you can record in real time, and what you may have to simulate. For example, Pam and I could not record plant propagation happening in the month of March, so we simulated it in April with a few cuttings from larger plants in the greenhouse.
- Take note of any written schedules that may exist. Document topics, dates, and techniques with attention to detail.
- Discuss a weekly schedule with your curator. Sometimes they will want to schedule week by week depending on the weather and how busy they are. Some may want a fixed schedule for you to come at the same time every week.
 - Make sure you are working with them when it is convenient. You do not want them to feel rushed, distracted, or inconvenienced by this process.

Do your best to fill their scheduling and timing needs.

4. Hold weekly ongoing meetings and conversations that discuss:

- The topics you will talk about and when for the week. You want the curator to feel prepared to talk about specific topics and prepare any necessary materials beforehand.
- Do not catch your curator off guard with questions. Prepare questions beforehand and email them to them so that they can think about their response beforehand.
- Work on a narration script together for videos after you have shot footage in the garden. This will help curators fill in any information gaps that they may have missed during the footage day.
 - Allow them to edit and add to the narration script as necessary so that all information is correct. Let the curators have a high level of participation and collaboration with these scripts. This will help them feel like they have a voice.
- Once you have edited a first rough draft of the instructional video make sure to send it to them. Ask them for their feedback and suggestions. Make sure they are a part of the process and that they have a say in how the video turns out.
- Always ask permission to start filming and consent to film. They must know when you are recording.
 - Some days they may not want to be featured on camera. Maybe they only want their hands filmed and not their faces. Make sure to ask what they are comfortable with every day.
- Ask to use some of their own photographs and footage that they have taken over the years. Make sure that they get credit for any material and property that is

theirs. This will make them feel a sense of responsibility over the archival process.

- Allow them to include their colleagues, peers, and volunteers in videos as desired. The Curators I have worked with do not like taking all of the credit, and feel more comfortable when they can share the spotlight.
 - Make sure that they feel comfortable with the footage of themselves and their voices. If they want to reshoot scenes or footage, always agree. They are the ones on camera, and if they want to try again, it is your obligation to do so.
- Update your curators via email or in person at the beginning of each scheduled meeting. Let them know your progress and what you have completed. Always send them final drafts so that they can approve.
- Never forget to thank them for all of the hard work and collaboration they were willing to participate in to help you archive their unique legacy. Gratitude is key!

LESSONS LEARNED

It is pivotal that the curators who have the explicit institutional knowledge are present and a part of every step of this process. There must be transparency between the client organizing the project, the consultant, and the curator. Curators can feel incredible ownership over their explicit knowledge and may not be willing to initially share. Sharing institutional knowledge can feel uncomfortable for older curators, especially those who tend to be humble and more introverted. Everyone must be well aware of what the process looks like and have a say in the content that goes into these videos.

The curators are the ones who have to be excited, interested, and willing to participate in a legacy archival project. They have to feel comfortable with the process and the intentions of the project for it to be a success. Make sure that their voice is heard and that any hesitations they may have are addressed early on. For example, they may not be comfortable being on camera or talking about themselves. The institutional knowledge still has to be captured, and you must be creative in the way that you approach their needs. Honor your curator in a format that makes them feel valued. This could look like audio recordings, narrated scripts, or interview style sessions.

Curators can feel as though a project like this can be invasive and threaten their efficiency. They may feel as though this will inconvenience and slow down their work. Communicate that there will be ongoing and continuous conversations about scheduling, videoing, and content editing. Flexibility is an incredibly important quality to have when working with archival management. For example, one day Pam and I scheduled to meet at Cornell Botanic Gardens Nevin Welcome Center to discuss seed selection. When we got there, she let me know that she felt sick and did not look her best. I made sure that I only videoed her hands and voice that day, and not her face since she said she felt congested and puffy. I wanted to make sure that her needs were met first, so that she felt like she could communicate the seed selection to me in an efficient way.

The curator and consultant need to sit down and identify the yearly schedule, and the most important processes to document during an early meeting. For example, Pam and I sat down and identified five important processes to document and two sub topics that we would have liked to document but that weren't vital to the archival process. The five processes we identified after talking about the yearly schedule were: Seed Selection, Plant Propagation, Spring Planting, Winter Clean Up, and the History. The sub topics we would have liked to cover if we had more time were education/interpretation, and volunteer management. We decided on these five topics after having multiple conversations about how she spends her time in the garden. These conversations have to feel flowing, light, and void of pressure. It can be very difficult for

curators to organize their explicit knowledge into a yearly schedule, especially if they do not have a monthly calendar with scheduled dates and times.

Organization at this level is a challenge and it is the consultant's job to draw out the details from the curator and then organize it chronologically, especially when getting down to specifics. I knew Pam would start selecting seeds in the fall, and so we chose a day to sit together to talk about it on video. She brought some seeds from her office that she wanted to talk explicitly about. I sent her questions prior to our meeting so that she would be prepared to answer them on camera. This process is difficult because you have to lead the conversation, even though you are not the one with all of the knowledge. Remember to actively listen. Do not ask too many questions or interject. This is your curator's time to speak and express their wisdom and knowledge.

I used a narration model to create and edit the instructional videos. After Pam and I shot footage, we would collaborate on a Google Doc together. We would co-write a script for the video. This would help Pam sort through her thoughts, and be relieved about capturing information that she forgot to talk about in front of the camera. She would then edit it and add to it as she wished. Narrating over video is a very efficient method for knowledge sharing, because sometimes Pam could not talk while she worked. Sometimes work could be strenuous, or require a great deal of

focus. This allowed Pam to do her work without the pressure of talking, and then I could narrate over that footage in the video to make a coherent single instructional clip.

Collaborating on a script together was an important bonding experience. Pam seemed to loosen up once we started writing scripts together. She was encouraged to add important details about her coworkers and experiences. She also shared her own photos with me that she had taken throughout the years. She was happy to share her photos, and explicit knowledge with me as long as I credited her for them in the video.

CONCLUSION

A high amount of communication and collaboration is important to successfully complete the legacy archiving process. The most valuable lesson I've learned from archiving horticultural legacies is that it is as much about the curator as it is about the plant collections they cultivate. You have to make your curators feel as cultivated and taken care of as their plant collections and gardens. Only then will a complete legacy archival project be successful.

Completing a legacy archiving project requires an interdisciplinary approach. Legacy archival consultants must understand how to be flexible, organized, approachable, and sensitive to the curators they are serving. Attention to detail, and skills in videography, video editing, and scheduling are required. Through the methods and procedures, alongside the strategic steps this project successfully archived the horticultural legacy of both Pam Shade and the Robison York State Herb Garden through digital media. The results of this project included five instructional videos explaining how to maintain and care for the Herb garden throughout the seasons. These videos are meant to be shown to entry level gardeners expected to cultivate the Herb Garden. This process has eliminated the generational gap between retiring curators and new gardeners, and has archived decades of institutional knowledge no longer in danger of being lost.

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