Barriers and Challenges to Virtual Reunification

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ABSTRACT

This paper presents challenges and barriers to virtual reunification as a strategy to represent dispersed ethnographic collections online. The study draws from the case of Dean C. Worcester's photos of U.S. colonial Philippines currently kept in various archives, libraries and museums. Findings presented are based on two types of qualitative data sources: two years of archival research in various owning repositories as well as semi-structured interviews of heritage administrators and professionals directly responsible for the Worcester photographs. Representatives from grant institutions that provide funding for digitization projects as well as researchers of the collection were also interviewed. By examining several repositories and analyzing stakeholders' pre-reunification concerns, the study examines prevailing challenges of virtual reunification as an inter-institutional collaborative endeavor.

Keywords

Virtual Reunification; Ethnographic Collections; Archival Photographs

INTRODUCTION

This article tackles two important concerns in understanding "virtual reunification," an emerging strategy of bringing together dispersed heritage collections online. The first concern is that the literature on virtual reunification offers very little discussion about the important challenges that confront heritage professionals and administrators as they engage in pre-reunification decision-making. The second speaks to the lack of available analysis of the characteristics that make virtual reunification a process that goes beyond what any other digitization and online access projects can achieve for heritage institutions and the collections they hold.

What does it take to pursue a multi-institutional, cooperative digital collection that will provide comprehensive access to dispersed archival photographs?

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Currently, organizations interested in pursuing online reunification projects might find guidance by examining extant reunification projects as exemplars or consult a small literature that reports the details of project implementations. While these resources can undoubtedly provide general guidance regarding resource allocation and expertise requirements, adequate understanding of the factors that can help organizations assess their own readiness and suitability to pursue virtual reunification is still lacking. It is also unclear whether the factors identified in existing reports adequately capture the institutional concerns surrounding virtual reunification projects.

In order to advance current knowledge about virtual reunification, this paper examines how certain determinate concerns come into play when a group of institutions consider whether or not virtual reunification is attainable, worthwhile, and productive to undertake. This project is the first to approach virtual reunification not only from the perspective of decisions made within a single organization, but also from an inter-institutional standpoint. This study identifies the barriers to reunification as an inter-institutional collaborative endeavor.

VIRTUAL REUNIFICATION

As a strategy for providing a consolidated online representation of scattered cultural heritage collections, "virtual reunification" has been in practice for over ten years. Marilyn Deegan and Simon Tanner (2002) were among the first to acknowledge the process, citing it as one of the benefits of digitization. They characterize virtual reunification as the possibility for "allowing dispersed collections to be brought together" (Deegan and Tanner 2002, 32). John Unsworth (2006) illustrated the process as a gathering together of "scattered archives," using the Walt Whitman Archive (http://www.whitmanarchive.org) and the William Blake Archive (http://www.blakearchive.org/blake) as cases to illustrate this point. Unsworth's two exemplars emphasize consolidation, textual analysis, and annotation.

Other notable virtual reunification projects include the Dante Gabriel Rossetti Hypermedia Archive (http://www.rossettiarchive.org); International Dunhuang Project: The Silk Road Online (http://idp.bl.uk); Codices Electronici Sangallenses (Digital Library of St. Gall), and later incorporated in e-codices: Virtual Manuscript Library of Switzerland (http://www.e-codices.unifr.ch); Codex Sinaiticus (http://codexsinaiticus.org/en); and

Penn/Cambridge Genizah Fragment Project (http://sceti.library.upenn.edu/genizah).

Anne Marie Austenfeld (2010) identified several characteristics of virtual reunification and prescribed the following goals: "[a virtual reunification project should] make its content materials accessible to scholars as an identifiable collection or unit, to present them in a context that encourages thoughtful and constructive study of their origins, provenance, and cultural content, and to offer the various owner libraries a chance to work together while not feeling pressured to give up control of materials they have come to cherish as their own" (146).

Virtual reunification crosses diverse fields—from archaeology to literary studies (primarily in literary and critical editions), papyrology to medieval manuscripts, 3D imaging technology to conservation—and refers to a variety of coordinated activities. Published works on online reunification mention a host of scholarly and technical endeavors: translation, textual analysis, and annotation, indexing and cataloguing, scanning protocols and imaging standards, repatriation and "cultural diplomacy" (Lynch 2008; Unsworth 2006; Greenfield 2007; Austenfeld 2010). Thus, virtual reunification encompasses the organization, production, and representation of dispersed cultural heritage collections kept in various locations in order to make these scattered collections accessible as a coherent collection or unit over the Internet.

Clifford Lynch (2002, 2009) projects that the growing trend towards virtual reunification will continue given its capacity to facilitate compromise and expediency for repositories unable or unwilling to de-accession or repatriate their piece of a larger inter-institutional collection. According to Austenfeld (2010), "The technology available in the 21st century offers an opportunity to diffuse the political tensions and logistical problems associated with dispersed collections by allowing us to reunify them virtually" (153). Modes of cooperation inspired in virtual reunification projects foreground technical solutions by promising the possibility of greater access to certain problematic collections. In some contexts, this move provides an unprecedented level of compromise around some of the most historically contentious issues of ownership and access to certain cultural objects (Greenfield 2007; Lynch 2008).

The literature regarding virtual reunification leaves a number of issues unaddressed or under-theorized. Specifically, the focus has been on certain genres of materials and endeavors for virtual reunification projects, none of which have focused on photographic images. In addition, barriers and challenges are rarely presented. Reports tend to emphasize positive outcomes, or successes, of virtual reunification projects. Less attention is given to the dynamic elements of the process, factors that threaten projects, and avenues that may have proved unfruitful. Certain barriers and challenges can influence the shape and outcomes of virtual reunification collaboration and, therefore, project reports could benefit from closer scrutiny of how threats are handled or resolved among key decision-makers. While authors writing on virtual reunification mention the value of concession, negotiation, and diplomacy, they pay very little discussion on how compromises are reached (Lerner and Jerchower 2006; Lynch 2008; Shenton 2009; Austenfeld 2010).

RESEARCH QUESTION

This paper examines the challenges of virtual reunification as a strategy to provide online integrated access to a dispersed collection of ethnographic archival photographs. This project is guided by the research question: *What are the challenges and barriers to virtual reunification as a strategy to represent dispersed ethnographic images?*

The overall goal of this study is to 1). understand the context and significance of institutional barriers to reunification and 2). identify issues confronting key decision-makers as they consider reunification as an option. By analyzing the issues confronting institutions as they consider virtual reunification as a strategy to provide integrated access to a dispersed collection of archival photographs, this project contributes to the ongoing discussion of how digitization and online access inspire new ways of representing heritage collections and how digital media are reshaping contemporary institutional responsibilities.

METHODOLOGY

Current studies of virtual reunification offer little analysis and reflection on the planning and implementation stages. This study therefore offers a critical analysis of the barriers and challenges that such projects confront. This study focuses on a specific set of dispersed ethnographic photographs from the colonial Philippines that offer a suitable collection for virtual reunification. These photographs, attributed to Dean C. Worcester (1866–1924), a U.S. colonial administrator and academic, have been the subject of previous efforts to provide unified access since the 1970s. Several factors make the Worcester collection a suitable candidate for reunification: its dispersed nature, its various levels and stages of digitization progress, previous interest in providing integrated access to the collection, and a definable group of stakeholders.

The research design involves site visits and archival research in ten libraries, archives and museums that are known to have in their collection Worcester's ethnographic photographs taken from the Philippines. Aside from the ten cultural heritage institutions, I also interviewed researchers and representatives from funding agencies. Owning institutions, researchers, and funding institutions form the major stakeholders of virtual reunification (Punzalan 2014).

I conducted 25 interviews between January and June 2012. Of these, 17 were done in person, seven by phone, and one through a series of email correspondence. Nineteen interview participants came from owning institutions. These

INTERVIEW PARTICIPANTS (n=25)		
Stakeholders	**Job Description**	**No.**
Heritage Professionals From Owning Institutions (n=19)	Archivists	10
	Curators	6
	Collections Managers	2
	Librarian	1
Funding Agency Representatives (n=4)	Executive Director	1
	Program Officers	3
Researchers (n=2)	Professor	1
	Exhibit Intern	1

Table 1. Interview Participants

institutions are:

- American Museum of Natural History (New York, NY)
- Field Museum of Natural History (Chicago, IL)
- Smithsonian Institution - National Anthropological Archives (Suitland, MD)
- Newberry Library (Chicago, IL)
- Peabody Museum of Archaeology and Ethnology (Cambridge, MA)
- Rautenstrauch-Joest Museum (Cologne, Germany)
- University of Michigan Bentley Historical Library (Ann Arbor, MI)
- University of Michigan Museum of Anthropology (Ann Arbor, MI)
- University of Michigan Special Collections Library (Ann Arbor, MI)
- University Pennsylvania Museum of Archaeology and Anthropology (Philadelphia, PA)

Respondents from these owning institutions were archivists, curators, librarians, and collections managers. Among these heritage professionals and administrators, five were photo archivists and one film archivist. In addition, there were three senior archivists holding head administrative positions and one reference archivist. Among the curators, two specialize in archaeology, three in rare books and manuscripts, and one in anthropology. The two collections managers oversaw anthropological and archaeological collections in their respective institutions. One participant was a librarian who specializes in Southeast Asian collections.

The two researchers I interviewed were identified through referrals from other respondents in owning institutions. I sent recruitment letters to six funding institutions and four accepted my invitation for an interview. The four funding institutions were the Andrew W. Mellon Foundation, the National Endowment for the Humanities (NEH), the National Historical Publications and Records Commission (NHPRC), and finally, the Institute of Museum and Library Services (IMLS). The agencies were identified based on their previous track record of supporting digitization and online projects.

All interviews were recorded and transcribed. Interview transcripts were coded and analyzed following a grounded theory approach. In addition to interview data, memos written following each interview. Memos were written with the aim of capturing the highlights, salient points, areas for further inquiry and other impressionistic details of the encounter with respondents. The site visits and archival research constitute actual examination of the collections, their descriptive tools and metadata, as well as accession records.

In the proceeding discussion, every effort has been made to keep the participants' identities anonymous. Each Table 1. Interview Participants respondent was assigned a unique alphanumeric code. In order to assist readers distinguish among interview participants, I organized the respondents into five categories: Archivists (A), Curators (C), Collections Managers (CM), Librarians (L), Researchers (R), and

Funders (F). Thus, A1 stands for Archivist 1, C3 for Curator 3 or R2 for Researcher 1. All quotes and excerpts from interviews are all referenced using these participant codes.

FINDINGS: BARRIERS AND CHALLENGES

Certain conditions hinder future efforts to reunify the Worcester collection. Among obstacles that prevent virtual reunification are:

- multiple and sometimes misaligned visions of outcomes;
- ambiguous relationship between the Worcester images and the source communities they document;
- owning institutions' lack of access to these communities;
- repositories' relative sense of the value and significance of the images; and
- lack of confidence and expertise among heritage workers to represent indigenous groups online.

These barriers to virtual reunification fall under three categories: 1) multiple and competing visions, 2) ambiguity and uncertainty, and 3) relative value and significance. There are significant overlaps between each category. Together, they help clarify the issues confronting heritage professionals and administrators when they consider virtual reunification as an option to provide integrated access to the Worcester collection.

Multiple and Competing Visions

Respondents from heritage repositories viewed virtual reunification as a way to accomplish institutional functions and responsibilities. When asked what might motivate institutions to pursue virtual reunification, a collections manager for a natural history museum responds: "If the images aren't digitized yet, [virtual reunification is] a way of getting them digitized and having a platform in which to serve these images and you can see a lot of these images all at once. And maybe there's different searching and varying functionality to this platform in which you can pull up different types of images … It allows you to really sort of to

see what's out there in terms of what the images are. What the actual universe is rather than it being buried sort of in photo albums that you can only see it a page at a time, for instance … You can see many more images all at once which I think is a good thing. So you can scan and see different things. The kinds of things that might look of interest and might have good relevance to whatever you're working on. And then, with other institutions, if they're signed onto it, you can sort of see who has what. So you're not limited to just your own universal images but you could expand it by at least other institutions participating so you can see what additional images might be out there" (CM1).

CM1 raises several points that this study has identified regarding the benefits of pursuing virtual reunification. These include having the Worcester images digitized, creating a platform that allows for various ways of interaction and discovery between collections, overcoming the limitations of images in their original analog formats, ensuring that institutions can exchange information, and consolidating metadata about their respective holdings. In addition, the quote simultaneously hints at the various audiences and products that such an effort will address, such as consolidated browsing and searching for researchers or sorting and re-organizing for heritage professionals and administrators.

Respondents indicated several key institutional responsibilities that virtual reunification will help facilitate: description, repatriation, collections management, and access and digitization. To a large extent, interviewees from owning institutions perceive virtual reunification as a strategy that will help them solve the challenges presented by dispersed ethnographic archival photographs. These include duplication and diversity of format, complicated context and sensitive content as well as complex metadata. The various owning institutions use different descriptive tools and rely on different descriptive standards in representing their respective collections. Heritage professionals and administrators want to consolidate descriptive contents into one online structure.

Consolidation will not only facilitate the development of a common access tool, it will enable the comparison of holdings across repositories, share their holdings with source communities, and facilitate greater interaction with the images and discovery of content. One archivist describes building a basis for comparison as one potential feature of reunification: "Obviously, not every single collection, it's my understanding, are exactly the same. So there needs to be some kind of a comparison" (A2).

Researchers interviewed for this study also share similar desires of having some capacity for a "comparative perspective" (R2). Researchers and heritage workers suggest several collections management tasks that could be coordinated through virtual reunification. High on this list is the mention of a general survey of images that shows consolidated descriptive information. Institutions anticipate

online reunification to help them account for the locations, media or formats, and physical condition of the images. This potential capability is also regarded as a process that can assist in the discovery of unique items, establish the universe of the Worcester images, and present the ways that the images are laid out and organized.

If participants from collecting institutions understand virtual reunification as a means of addressing local processing needs, funders underscore the importance novelty and innovation. Interview data from representatives of funding agencies suggest that these institutions are highly interested in and motivated by the idea of innovation. As a representative from one agency stated, "I think for all of us, any proposal that comes up with a better way to skin a cat, as the saying goes, within the context of their proposal and materials that they want to deal with, that's always very attractive to any funder, private or governmental, because a part of grant-making is when you work on our side of it is that you're risking" (F4).

Funding agencies expect online reunification projects to extend beyond attending to normal institutional functions of heritage repositories. The noticeable misalignment of motivations between respondents from owing institutions and funders implies that reunification efforts must satisfy multiple purposes and complex outcomes. Thus, planning of virtual reunification must negotiate a number of complex institutional outcomes, including processing and representation, access and digital repatriation as well as demands for research innovation. However, in exploring respondents' ideas around the possibilities and potentials of virtual reunification, I found that stakeholder groups hold divergent priorities and visions about the implementation and outcomes of reunifying the Worcester images. Extrapolating from these findings, I suggest that virtual reunification projects need to negotiate and work out the multiple, often competing, visions that varied stakeholders bring to any given project. To operationalize this finding, heritage workers considering virtual reunification should: first, determine what sorts of institutional and administrative goals a project might further; second, explore possibilities for implementing novel processes; and finally, to join these into the creation of innovative outcomes.

Ambiguity and Uncertainty
I examined the material conditions and barriers to reunifying the dispersed Worcester images. I found that the nature and story of dispersion present initial complications for reunification. One concern is the problematic ownership and attribution of the Worcester images that consequently makes it hard to identify what images are kept where. The Worcester photographs came to various institutions at various points in time from various donors and collectors. Another issue arises from the nature of photographic formats and media given its tendency to appear in multiple formats (negatives, prints, lantern slides, etc.) and in duplicates. Issues of duplication and format do not only the

challenge efforts at locating the Worcester collections, they also engender questions of originality and uniqueness. Figure 1 illustrates the variety of formats of the Worcester photographs in select institutions.

The complex social and technical issues of representing ethnographic images raise another area of ambiguity: "The real concern I had, other than just the logistics of doing it, were thinking about the sensitivity of some of the photographs and what was the balance between making this collection accessible and also dealing with the fact that many of these photographs are offensive to me and offensive to contemporary Filipinos as well. Particularly, as you know, the naked women photographs. So, I was kind of struggling with the issues of self-censorship, I suppose, and the ethics of that" (C1).

Respondents, like C1, who identify themselves as directly responsible for the Worcester images express uneasiness over their qualification to handle issues surrounding the content of ethnographic images and the context of their creation. Thus, they articulate a lack of confidence to "analyze deeply embedded social issues," as another respondent (A2) indicated. Here, expertise means having the capacity to understand the boundaries of what constitutes an offensive image: "I would imagine women, in these cases, that are represented in an unfortunate way in these photographs, who speaks for these women now that they're no longer there. Identifying that, I would think, would be a challenge … I think you would want to consult with the appropriate people who could serve maybe as representatives for these women if that's possible and get their thoughts about internally. Should we be looking at these images? Should we sort of put them in an envelope and not look at them anymore out of respect for them or is it okay among museum staff because they're having care for these images" (CM1)?

Representatives of owning institutions regard virtual reunification as a strategy that can coordinate digital repatriation by providing source communities access to the images and establishing ways of incorporating indigenous knowledge with information documented by the photos. A collections manager describes the "virtual way" (CM1) as an option to bringing collections closer to communities.

Evident from interview data, virtual reunification offers a means for initiating and coordinating repatriation. In the case of ethnographic images, digital surrogates play an important role in accomplishing this mode of establishing connections between institutions and the images in their care and the communities documented in the Worcester photos. This statement from a photo archivist suggests this possibility: "If you're talking about returning materials back to their source cultures, you don't have to send the negative back. You don't particularly want to because we've got the climate control, and chances are they don't. And they understand that too, but they want a copy. And then, they

Figure 1. The Worcester images come in a variety of formats and modes of organization. From left to right, beginning row one: prints from copy negatives at the Field Museum of Natural History, prints on a scrapbook at the American Museum of Natural History, a lantern slide at the University of Michigan Museum of Anthropology, and prints mounted on board at the Smithsonian's National Anthropological Archives, and prints from a dismantled scrapbook at Harvard University's Peabody Museum of Archaeology and Ethnology.

can make copies. And they can share them. This is the joy of it" (A1).

Kimberly Christen (2011) observes that digital repatriation can be contentious, especially when digital surrogates are considered to replace physical objects. In addition "no one, standard definition, nor agreed-upon terminology, characterizes the multiple practices of collecting institutions, individuals, or local community groups surrounding the return of cultural and historical materials to indigenous communities in their digital form" (187).

Institutional respondents regard the Worcester images as ideal candidates with which to explore the possibilities of digitally repatriating collections to source communities. One advantage is that return is not restricted to the original or the material make up of artifacts. Photographs, for institutional participants, are less complicated compared to other collection items that are impossible to return using surrogates (such as human remains and religious objects).

In the case of archival photographic collections, respondents from institutions believe that repatriation can be achieved via digital means, as respondent A1 implied.

A colloquium held in 2006 explored the expertise necessary for archivists to move confidently into the digital age (Pearce-Moses and Davis 2006). The event identified several useful technical and intellectual skills, but lacked any mention of dealing with issues of cultural sensitivity and context that arise from digitization and online access. My interview data revealed that respondents grappled with questions around professional expertise and responsibilities that were often not so much technical as social and cultural. For future reunification projects of similar ethnographic image collections, I suggest that workers in academic institutions seek out domain experts that may have the local, cultural knowledge to answer questions of a similar nature. Striking in my findings is the sense of limitations among heritage workers of not understanding where and how to acquire knowledge to deal with culturally sensitive collections.

The relationship between source communities and owning institutions presents another uncertainty. Respondents from owning institutions are uncertain about the relationship of the Worcester images with the indigenous groups in the Philippines. They cite the lack of any formalized links between the source communities and their respective institutions. At present, no institutions that hold Worcester images have established any formalized methods or links with source communities. Although respondents see reunification as a possible method to repatriate materials and accomplish participatory description, the relationship between the indigenous groups with the Worcester images lacks any functioning infrastructure of communication or exchange between owning institutions that house the Worcester photographs.

Relative Value and Significance
Respondents from owning institutions assess the value and significance of the Worcester images in different ways. I noted that value is not an inherent property of collections. Although external use by researchers is undoubtedly significant, my findings indicate that in-house and administrative use occupies a significant role in the creation of value for the Worcester images. Among museum professionals and administrators, the Worcester images are sources of metadata that support other institutional responsibilities to create exhibits and to publish from their collection. Thus, the images have a more institutional utility, with members of the staff serving as the primary users of the images. In some cases, the photographs are consulted in order to determine and verify how certain objects function in specific source communities. For instance, "I was trying to figure out how things were worn… So from cataloging, like the actual work I have to do, those photos are... Those types or those material culture photos are important because I can narrow down how things are used. How's this basket really carried? I know

that it has a hemp line to it. Is it really carried over the head? Is it carried over the shoulders or what? And then we have a photo of it" (CM2).

Decisions regarding access control proved another point where respondents from heritage institutions manifested a sense of relative value. Heritage professionals and administrators face the challenge of balancing between free and open access with sensitivity concerns. According to A5, "My concerns personally are only cultural. Like I really have a strong feeling it would be good to go back to certain places and try to find people who are related to the people in the pictures and say, "What do you think? Do you think this kind of thing that something that should be published? Should there be Internet access for this image" (A5)?

As heritage professionals and administrators show lack of confidence in representing online indigenous groups who are unfamiliar and inaccessible to them, access becomes primarily about facilitating exchange of metadata for owning institutions and creating a platform to include source communities.

IMPLICATIONS
The findings of this study have major implications for archival theory, including the concept of "use," provenance, uniqueness and originality, and finally the notion of "wholeness" of dispersed collections.

The role of in-house institutional use
Studies of use and users of archives primarily focus on outside research demands (Tibbo 2003; Duff, Craig, & Cherry 2003; Yakel 2003; Yakel & Torres 2007; Dryden 2004; Duff et al. 2008; Duff & Johnson 2002; Yakel 2002; Yakel 2004; and Yeo 2005). In the case of the Worcester images, in-house and institutional use among curators, collections managers and other heritage professionals plays a significant role in a repository's assessment of value and importance. Interview data show that a profound sense of value develops out of prolonged and repeated institutional use. The longer the history of this type of use, the greater the institution perceives the value of the images in their care. The implication of this finding is that archivists require a more holistic approach for determining the value of images over time.

As the archival field increasingly pursues better ways of assessing the impact of archives services and collections through user studies, I suggest incorporating this more holistic perspective in two ways. First, pay attention to "in-house institutional use" as a category of use deserving further attention and research focus. Paul Conway's (1986) early definition of use acknowledges archival and in-house action. My analysis of interview data shows that heritage administrators and professionals are a category of users whose purpose of use are internally driven and motivated by heritage functions. Conway's notion of users crafted over twenty years ago includes archivists who extract information in order to answer reference queries, prepare finding aids, and organize exhibits. I argue that while

various archival user studies address the lack of knowledge of how outside researchers access and use archives, understanding how heritage professionals and administrators use archival sources in their performance of heritage work will only enrich the archival field's own understanding of use/users.

My second proposition is to look at the relationship between "in-house institutional use" with other types of archival use. Among the findings of this study is that the frequency of institutional use affects how museum professionals value the Worcester collection. In other words, curators, collections managers and museum archivists who frequently access the Worcester photographs in their performance of institutional responsibilities tend to value the images more. A future study should examine if there is any correlation between this type of institutional valuing with outside users' assessment of significance.

Provenance and Original Order
Findings of this study have implications for archival principles of provenance and original order. The dispersed images of Worcester challenge the capacity of these principles to assist in locating and discovering images. This research describes how different institutions applied provenance in differing ways. Given their context of dispersion, the images have been often subsumed and attributed under other collectors. By applying the principle of provenance to individual donors, the provenance based on origin (Worcester) has been obscured. The direct consequence of this uncommon implementation of the principle has kept the Worcester collections fragmented and hidden in some institutions. In addition, interview data show disparity between the institutional organization of collections and Worcester's idiosyncratic way of arranging the images. Heritage professionals and administrators look to digital and online technology to assist in reestablishing provenance, and for rediscovering original order of the Worcester collection. Virtual reunification may thus inspire conversation around the limits of current understanding of provenance and original order.

Uniqueness and Originality
The Worcester collection presents complicated notions of uniqueness and originality (Eastwood 1994). Heritage workers articulate the value of images in relation to their uniqueness. Because of the nature of their dispersion, Worcester photographs consequently acquired varied notions of uniqueness beyond the simple definition of having the "one and only." Several versions and configurations of the images exist in various repositories. I found that the different ways the Worcester collections have been used, organized, or processed create a sense of relative uniqueness among owning institutions. In addition, consolidating all available versions and duplications across all institution can lead to the discovery of unique (one and only) images. This case study relates back to previous explorations of uniqueness as a relative concept (O'Toole 1994).

This study also provides clarification on how the notion of "originality" works in digitization decision-making. Curators, librarians and archivists who participated in the study categorically designate the negative as the original image. The study notes that while uniqueness and originality may be important to many institutions, these concepts become secondary to issues of quality. Sometimes, the preference for negatives is largely an issue of quality over originality in the context of digitization.

The "Whole" and the "Object" of Reunification
Virtual reunification is not only a strategy for delivering finite, clearly bound and well defined dispersed works. In the case of the Worcester images, online reunification offers a way to discover totality and wholeness. Reunification of the Worcester photographs is more likely a strategy for delineating the boundaries of the whole. In this sense, wholeness is constructed and defined in the act of bringing together the various pieces of information to make up a sense of the whole. Virtual reunification offers a strategy to consolidate several pieces of information.

The 'whole' is contingent upon the determination of what constitutes the various elements that make up the entirety of 'the object' of reunification. What pieces must come together in order for the whole to be defined and established? In the case of the Worcester images, the whole is composed of:

- The totality of all images not only the unique items, these include duplicate images, in various formats and modes of presentation;
- Original notations and captions by Worcester as well as other metadata created by researchers and institutions, including their finding aids;
- History of access and use, which includes publications, exhibitions, and digital projects.

The existence of duplication, the presence of multiple formats, uncommon attribution of ownership and provenance, as well as the nature and story of their dispersion all complicate the sense of the whole in the case of the Worcester images. Representing the 'whole' in this instance requires more than stitching together all the dispersed images kept in various repositories.

Identifying what constitutes the whole and what bits and pieces of information that qualify as key components of that whole is largely a matter of consensus by those involved in the reunification process. While a literary scholar or historical editor may have expert and intimate knowledge of the history, content, and locations of a dispersed manuscript, the researcher's work is nevertheless dependent upon the efforts to make collections accessible and available for use by institutions that keep them. Institutional efforts to organize, create and capture metadata, catalog and describe objects, and preserve and exhibit artifacts all feed into the notion of totality and wholeness.

CONCLUSION

Through an investigation of the case of Dean C. Worcester's photographs of the early-twentieth-century Philippines, this article has shed light on the challenges to carrying out virtual reunification projects. Based on interviews with a breadth of stakeholders involved in the process revealed more clearly the barriers that confront a large-scale, multi-institutional digital project. I hope that this research has helped not only to assist in charting a way forward for the Worcester collection, but that it will also provide a model for planning and assessing the development of other virtual reunification projects in the future.

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