

**Virtual Reunification:  
Bits and Pieces Gathered Together to Represent the Whole**

by

**Ricardo L. Punzalan**

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**Doctoral Committee:**

**Professor Margaret L. Hedstrom, Chair  
Associate Professor Paul L. Conway  
Lecturer Bradley L. Taylor  
Professor Elizabeth Yakel**

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## DEDICATION

This dissertation is dedicated to

*Felicitas T. Paras,*  
without her generosity and unconditional giving, I would not be where I am today;

and

*Jesse Alan Newhouse Johnston,*  
whose modesty, cleverness, and loyalty are my joy and inspiration.

Words can never express how grateful I am that you are part of my life.

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## **ABSTRACT**

This dissertation examines virtual reunification as a strategy to gather together dispersed archival photographic images online. It draws insight from the ethnographic images of Dean C. Worcester, which are currently dispersed among ten libraries, archives, and museums. This study identifies and examines the barriers and challenges to online reunification that confront institutions that vary in terms of organizational missions, nature and size of holdings, digitization priorities and strategies, and provisions of access to collections. Two sources of qualitative data, gathered from 2010 to 2012, support this research: archival research in various owning repositories and semi-structured interviews with heritage professionals directly responsible for the Worcester collections, representatives from funding organizations, and academic researchers. By examining several repositories and analyzing stakeholders' pre-reunification concerns, this dissertation provides insight into the prevailing challenges of virtual reunification as an inter-institutional collaborative endeavor.

This study shows that certain determinate conditions hinder future efforts to reunify the Worcester collection. The obstacles that prevent reunification include: 1) multiple and sometimes misaligned visions of outcomes, 2) ambiguous relationship between the Worcester images and the source communities they document, 3) owning institutions' lack of access to these communities, 4) repositories' relative sense of the value and significance of the images, and 5) lack of confidence and expertise among heritage workers to represent indigenous groups online.

Heritage professionals and administrators view virtual reunification as a way to accomplish local institutional functions and responsibilities. However, funding agencies expect reunification projects to extend beyond facilitating normal institutional tasks to demonstrating novelty of process and innovation of access. The misalignment of motivations between respondents from owning institutions and funders implies that reunification efforts must satisfy multiple purposes and complex outcomes.

Respondents from owning institutions assess the value and significance of the Worcester images in different ways. On the one hand, special collections librarians and archivists tend to assess value and significance in terms of outside research use and the perceived originality and uniqueness of the images. On the other hand, in-house and administrative use occupies a significant role in the creation of value for the Worcester images among museum workers who see these photographs as sources of metadata that support other institutional responsibilities. This unrecognized sense of institutional utility with staff members as primary users of the images is an important factor that will affect decisions over the purpose and product of reunification.

The absence of formalized relationships between source communities and owning institutions constitutes another barrier. Curators, archivists, librarians and collections managers in owning institutions manifest a lack of confidence in representing indigenous groups who are unfamiliar and inaccessible to them. In this light, virtual reunification of the Worcester images will likely facilitate exchange of metadata among owning institutions and create a platform of access for source communities.



## **CHAPTER 1**

### **INTRODUCTION**

This dissertation 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? 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 dissertation 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. My study captures the barriers to reunification as an inter-institutional collaborative endeavor.

## 1.1. DIGITIZATION AND ONLINE ACCESS

Access to digitized objects has become a common feature on the websites of many heritage repositories. Millions of images are now accessible online courtesy of advanced and sophisticated image scanning technologies, efficient and interactive web interfaces, and faster and broader Web connectivity. Digitization and online access are becoming the normal modes of fulfilling institutional mandates of access and preservation.<sup>1</sup> Along with many others in the related fields of libraries, archives, and museums (LAMs), Shan Sutton observes that “digitization in special collections has begun to shift from a temporary endeavor to a fundamental responsibility.”<sup>2</sup> The field is at a critical moment of development that has been brewing since over a decade ago in what Sutton characterizes as “the point of no return” for special collections.

Melissa Terras describes the evolution of digitization from an *ad hoc* and largely experimental venture by a few large institutions to becoming a significant part of the day-to-

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<sup>1</sup> Ricky Erway, “Supply and Demand: Special Collections and Digitisation,” *Liber Quarterly* 18(3/4) (2008): p. 324-336.

<sup>2</sup> Shan Sutton, “Navigating the Point of No Return: Organizational Implications of Digitization in Special Collections,” *portal: Libraries and the Academy* 4(2) (2004): p. 235. See also: Marilyn Deegan and Simon Tanner, *Digital Futures: Strategies for the Information Age* (London: Library Association Publishing, 2002): p. 30-57; and Lorna M. Hughes, *Digitizing Collections: Strategic Issues for the Information Manager* (London: Facet, 2004): p. 1-30.

day performance of heritage work.<sup>3</sup> The progress in this arena seems unstoppable: from focusing on small sample collections to explore the potential of space-efficient storage at the National Archives and Records Administration and the Library of Congress in the early 1980's, to mass scanning and the establishment of standards and guidelines in the 1990's, to the digitization of entire collections as well as the development of techniques and projects that involved cultural heritage materials beyond textual records in 2000's.<sup>4</sup>

Virtual reunification appears to continue this trend of creating larger, and more media-rich, cultural heritage materials that can be accessed online. In addition, following developments in cyberinfrastructure and digital humanities, virtual reunification possibilities have expanded through higher-bandwidth network access, development and creation of digital tools, and the continuing growth in visualization and analysis techniques.<sup>5</sup>

Reports, such as, OCLC's "Scan and Deliver,"<sup>6</sup> "Rapid Capture,"<sup>7</sup> "Capture and Release,"<sup>8</sup> and "Shifting Gears"<sup>9</sup> speak to the various ways that institutions are responding to digitization as a mode of bringing collections to users. From "digitization-on-demand"<sup>10</sup> to "digital cameras in the reading rooms,"<sup>11</sup> these reports evidence the ways that institutions are

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<sup>3</sup> Melissa M. Terras, *Digital Images for the Information Professional* (Ashgate, 2008): p. 99-139.

<sup>4</sup> Terras (2008), p. 104-120.

<sup>5</sup> Dan Atkins, et al., *Revolutionizing Science and Engineering through Cyberinfrastructure: Report of the National Science Foundation Blue-Ribbon Advisory Panel on Cyberinfrastructure* (National Science Foundation, 2003); John Unsworth, et al., *Our Cultural Commonwealth: The Report of the ACLS Commission on Cyberinfrastructure for the Humanities and Social Sciences* (American Council on Learned Societies, 2006), available online  
[http://www.acls.org/uploadedFiles/Publications/Programs/Our\\_Cultural\\_Commonwealth.pdf](http://www.acls.org/uploadedFiles/Publications/Programs/Our_Cultural_Commonwealth.pdf).

<sup>6</sup> Jennifer Schaffner, Francine Snyder, and Shannon Supple, *Scan and Deliver: Managing User-Initiated Digitization in Special Collections and Archives* (Dublin, Ohio: OCLC, 2011). Available at  
<http://www.oclc.org/content/dam/research/publications/library/2011/2011-05.pdf>.

<sup>7</sup> Ricky Erway, *Rapid Capture: Faster Throughput in Digitization of Special Collections* (Dublin, Ohio: OCLC, 2011). Available at <http://www.oclc.org/content/dam/research/publications/library/2011/2011-04.pdf>.

<sup>8</sup> Lisa Miller, Steven K. Galbraith, and the RLG Partnership Working Group on Streamlining Photography and Scanning, *Capture and Release: Digital Cameras in the Reading Room* (Dublin, Ohio: OCLC, 2010). Available at <http://www.oclc.org/content/dam/research/publications/library/2010/2010-05.pdf>.

<sup>9</sup> Ricky Erway and Jennifer Schaffner, *Shifting Gears: Gearing Up to Get Into the Flow* (Dublin, Ohio: OCLC, 2007). Available at <http://www.oclc.org/resources/research/publications/library/2007/2007-02.pdf>.

<sup>10</sup> Schaffner, Snyder, and Supple (2011).

<sup>11</sup> Miller, Gilbraith, and the RLG Partnership Working Group on Streamlining Photography and Scanning

scaling digitization efforts in repositories and developing workflows that respond to demands for capturing and delivering digital copies. With digitization changing the mode for heritage collections access and delivery, it is also making an impact on institutional structures and practices.<sup>12</sup>

In the last ten years, cultural heritage institutions have been reconsidering staff expertise and responsibilities,<sup>13</sup> rethinking resource requirements and allocations, and redefining organizational structure and makeup.<sup>14</sup> Large institutions, for instance, are slowly creating new positions in order to accommodate new digital responsibilities and better coordinate digital initiatives.<sup>15</sup> Furthermore, institutions are venturing into collaborative digital projects aimed at harnessing potentials of the online environment.<sup>16</sup> The incorporation of digital technology in heritage repositories is widely considered to be both an opportunity for organizational reinvention and a mechanism for institutional survival.<sup>17</sup>

Professionals and administrators in the heritage sector are constantly assessing the actual impact of online access on the use of collections and the frequency of site visits to repositories. A study published in 2008 by the Institute of Museum and Library Services (IMLS) shows that the availability of heritage materials online does not discourage in-person visits to libraries and museums. The same report concludes that there is “compelling

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(2010).

<sup>12</sup> Lilly Koltun, “The Promise and Threat of Digital Options in an Archival Age,” *Archivaria* 47 (Spring 1999): p. 114-135.

<sup>13</sup> Richard Pearce-Moses and Susan E. Davis, editors, *New Skills for a Digital Era*, colloquium proceedings (Washington, DC: National Archives and Records Administration, Society of American Archivists, Arizona State Library, 2006).

<sup>14</sup> Darren Peacock, “Making Ways for Change: Museums, Disruptive Technologies and Organizational Change,” *Museum Management and Curatorship* 23(4) (2008): p. 333-351.

<sup>15</sup> Michael Boock and Ruth Vondracek, “Organizing for Digitization,” *portal: Libraries in the Academy* 6(2) (2006): p. 197-217.

<sup>16</sup> Martin R. Kalfatonic, et al., “Smithsonian Team Flickr: A Library, Archives, and Museums Collaboration in Web 2.0 Space,” *Archival Science* 8 (2008): p. 267-277.

<sup>17</sup> Andrea Witcomb, “The Materiality of Virtual Technologies: A New Approach to Thinking About the Impact of Multimedia in Museums,” In Fiona Cameron and Sarah Kenderdine, eds., *Theorizing Digital Cultural Heritage: A Critical Discourse* (MIT Press, 2007).

evidence that museums and libraries have leveraged the availability of the Internet to present their resources and services to a broader audience and offered an additional mode of access to them, while traditional in-person visits continue to increase.”<sup>18</sup>

Digitization is redefining the relationships among heritage repositories, the collections that they keep, and the patrons that they serve.<sup>19</sup> Online digital images have proven to be useful in the discovery of otherwise hidden or inaccessible materials, and they are transforming research practice.<sup>20</sup> Digitization is not only reconfiguring core heritage functions, but it is also reshaping expectations of access and use by both users and creators.<sup>21</sup> The availability of primary sources supports the creation of what Carole Palmer calls “thematic collections,” or digital materials that span varied sources and organized by researchers to suit specific scholarly endeavors.<sup>22</sup> Digitization is reshaping contemporary “epistemic infrastructure,” from repositories to collections to access and use of these materials.<sup>23</sup>

Encountering artifacts via their digital and online surrogates is fast becoming one of the usual modes of experiencing heritage objects.<sup>24</sup> Scholars in media, visual, and cultural

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<sup>18</sup> Jose-Marie Griffiths and Donald W. King, *Inter-Connections: The IMLS National Study on the Use of Libraries, Museums, and the Internet (Conclusions Summary)* (Institute of Museum and Library Services, February 2008): p. 5. (Available: <http://interconnectionsreport.org/reports/ConclusionsSummaryFinalB.pdf>).

<sup>19</sup> Mary Samouelian, “Embracing Web 2.0: Archives and the Newest Generation of Web Applications,” *American Archivist* 75 (Spring/Summer 2009): p. 42-71; and Peter B. Hirtle, “The Impact of Digitization on Special Collections in Libraries,” *Libraries and Culture* 37(1) (2002): p. 42-52.

<sup>20</sup> Research Information Network, *Discovering Physical Objects: Meeting Researcher's Needs* (London: Research Information Network, 2008).

<sup>21</sup> Marlene Manoff, “Archive and Database as Metaphor: Theorizing the Historical Record,” *portal: Libraries in the Academy* 10(4) (2010): p. 385-398; and Peter Michel, “Digitizing Special Collections,” *Library Hi Tech* 23(3) (2005): p. 279-395.

<sup>22</sup> Carole L. Palmer, “Thematic Research Collections,” In Susan Schreibman, Ray Siemens and John Unsworth, eds., *A Companion to Digital Humanities* (Blackwell Publishing, 2004): p. 348-382.

<sup>23</sup> Margaret Hedstrom and John Leslie King, “Epistemic Infrastructure in the Rise of the Knowledge Economy,” In Brian Kahin and Dominique Foray, eds., *Advancing Knowledge and the Knowledge Economy* (Cambridge, MA: MIT Press, 2007): p. 113-134; Hu-LI Lee, “What is a Collection?,” *Journal of the American Society for Information Science* 51(12) (2000): p. 1106-1113; and James Currall, Michael Moss and Susan Stuart, “What is A Collection?,” *Archivaria* 58 (2004): p. 131-146.

<sup>24</sup> Bradley Taylor, “Enhancing the Value of Museum Websites: Lessons from the Practical Engagement Front,” *Journal of Library Administration* 39 (2/3) (2003): p. 107-122.

studies have contemplated this recent phenomenon and have offered up some ways to describe the impact of the digital media in contemporary society. Sarah De Rijcke and Annie Beaulieu, for instance, introduce the notion “image interface” to emphasize how access to knowledge is becoming more and more networked and filtered through visually mediated interfaces.<sup>25</sup> Bella Dicks, in addition, describes online displays of cultural heritage as “virtual destinations,” or sites where cultures are in “visitable” forms.<sup>26</sup>

## 1.2. RATIONALE AND PURPOSE OF THE STUDY

Some institutions are using digitization and online access to represent and deliver collections in new and creative ways. Dispersed collections that are otherwise difficult, if not entirely impossible, to re-unite physically can be made whole again by “allowing dispersed collections to be brought together.”<sup>27</sup> In this study, **virtual reunification** refers to the strategy of using digital technologies to re-integrate artifacts, literary or artistic works of the same origin that have been scattered or dispersed for various historical and cultural reasons. It is a process widely touted as one of the capacities afforded by recent advancements in digitization practices on the heritage front.

Virtual reunification is but one strategy available among the steadily increasing examples of online projects using digital surrogates in the delivery of heritage content. In addition, it is considered a viable alternative to provide increasingly integrated access to historically dispersed collections that are almost impossible to assemble in their physical format. Digitization researchers look at the positive impact of virtual reunification to vivify

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<sup>25</sup> Sarah De Rijcke and Annie Beaulieu, “Images as Interface: Consequences for Users of Museum Knowledge,” *Library Trends* 59(4) (2011): p. 663-685.

<sup>26</sup> Bella Dicks, “Virtual Destinations,” In *Culture on Display: The Production of Contemporary Visibility* (Issues in Culture Media Studies) (Open University Press, 2004): p. 170-194.

<sup>27</sup> Deegan and Tanner (2002): p. 32.

special collections research and scholarship. As Clifford Lynch declares, “We can re-structure and re-create special collections along logical intellectual lines, and indeed create new ‘virtual’ special collections that facilitate new kinds of scholarly investigation.”<sup>28</sup>

A small number of large heritage institutions have utilized virtual reunification as a strategy to present dispersed collections online. Other repositories interested in pursuing a reunification project will likely find guidance by examining extant reunification projects as exemplars or consult the small, but steadily growing, literature that reports the details of project implementations. While these resources can undoubtedly provide general guidance regarding resource allocation and expertise requirements, this dissertation identifies and examines the factors that heritage professionals and administrators, funders, and researchers need to consider in virtual reunification. This study also characterizes the concerns that come into play in the context of institutions contemplating whether or not reunification is attainable, worthwhile, and productive to undertake.

### **1.2.1. Research Focus**

This dissertation examines the concerns of pre-unification decision-making. By analyzing the issues confronting institutions as they consider virtual reunification as a strategy to provide an 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.

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<sup>28</sup> Clifford A. Lynch, “Special Collections at the Cusp of the Digital Age: A Credo,” *Research Library Issues: A Bi-Monthly Report from ARL, CNI, and SPARC* 267 (December 2009): p. 5. (Available at <http://www.arl.org/resources/pubs/rli/archive/rli267.shtml>)

### *Worcester's Dispersed Photographs*

As indicated above (and further expanded in chapter 2), 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. In order to investigate this, the dissertation examines a dispersed set of ethnographic images 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. Given its seeming suitability for a virtual reunification project, this dissertation investigates the challenges and barriers that impede a possible virtual reunification effort from moving forward.

#### **1.2.2. Research Question**

This dissertation 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 the dispersed ethnographic images of Dean C. Worcester?**

The overall goal of this project is to:

- Understand the context and significance of institutional barriers to reunification



- Identify issues confronting key decision-makers as they consider reunification as an option
- Explain how certain barriers impact the dynamics and politics of pre-unification decision-making

This research generates insights into pre-reunification challenges by analyzing data from a single case study. The research design involved archival research and semi-structured interviews with people directly responsible for the Worcester collections in ten heritage institutions. These institutions vary in terms of collections, sizes, digitization priorities, and missions. Chapter 3 provides a more complete discussion of Worcester, the context behind his photographs, and the institutions that house them. This dissertation draws insight from librarians, archivists, collections managers and curators responsible for the collection, researchers with previous experience using the collection in multiple sites, and representatives from agencies that fund digitization and reunification projects.

Virtual reunification offers possibilities to create and assemble digital versions of rare and special collections that have been geographically dispersed for various reasons. Institutional plans for digitization, priorities, and strategies to navigate this complex endeavor remain largely unexamined. This dissertation analyzes the barriers to the implementation of virtual reunification as a multi-institutional, cooperative digital initiative.

### **1.2.3. Significance**

This dissertation is the first empirical study to offer an in-depth look into the collaborative and technical workings of virtual reunification projects. In this vein, the study explores the challenges and barriers that face heritage professionals and administrators currently engaged in work with reunification-worthy collections. The data presented here

offer insights on virtual reunification across a variety of heritage repositories, i.e., archives, libraries, and museums (LAMs).

### *Focusing on Collaboration Among LAM Institutions*

The Worcester photographs make an excellent case study of the questions that heritage workers face when planning to reunify a complex collection online. The images are divided among ten LAM institutions that are independently pursuing different digitization strategies. Available literature on virtual reunification projects mentions the cooperative nature of such endeavors. The ways that institutions with varying digitization programs, priorities and strategies negotiate this cooperation, however, remain unexamined.

This research provides a rich description of the important considerations that influence the decisions stakeholders must make before a virtual reunification project could commence. In my examination of the impact of virtual reunification, I analyzed local institutional challenges and compared these concerns in order to represent the collective inter-institutional contexts and realities of the barriers to virtual reunification.

This study examines the perspectives of potential stakeholders (owning institutions, funders, and researchers) on virtual reunification. In doing so, I draw a clearer picture of the relationship between the sometimes divergent goals of these significant interest groups. In this light, I offer an approach for examining and comparing common and misaligned priorities between and among stakeholder groups in order to isolate the significant barriers to reunification. Furthermore, I underscore the importance of incorporating key decision-makers' outlooks in determining the potential steps and outcomes of reunification. This study reveals the context and structure of decision-making for virtual reunification.

### *Unlocking the Story of Dispersion*

I present in this work a nuanced perspective on the story of dispersion as I describe how elements of the dispersion story present great challenges to virtual reunification. The literature treats the dispersed nature of collections as a given without explaining how and why the story of dispersion influences reunification efforts.

This study offers the most complete outline of the dimensions of dispersion for the Worcester photographs, which aids in the study of the nature and context of their spread. This offers not only understanding for the Worcester images, but also a framework for comparable projects with similarly complex histories and routes of dispersion.

### *Contextualizing the Reunification of Dispersed Ethnographic Images*

Existing examples of reunification projects all focus on literary works, archaeological artifacts, and artworks such as paintings and sculptures. In this dissertation, I provide the characteristics and choices inherent in efforts to digitize and reunify photographic images in a cross-institutional context. This focus on dispersed photographic collections is unprecedented in virtual reunification research.

Although virtual reunification has been touted as one means to accomplish the repatriation of collections, this study is the first to consider virtual reunification as a possibility for returning ethnographic image collections to source communities. Heritage workers and professionals who participated in this study consider virtual reunification as an option to accomplish the return of materials. As a significant body of ethnographic photographs from the U.S. colonial Philippines, the Worcester collections are primary exemplars for studying this issue.

This dissertation offers insight on the variety of challenges and barriers that face institutions in reunifying dispersed collections. Through my investigation of the Worcester collection, my research offers understanding of the institutional priorities and functions that heritage professionals and administrators consider significant. This project characterizes some of the most important considerations for undertaking future virtual reunification projects.

### **1.3. OUTLINE OF CHAPTERS**

The dissertation proceeds from the argument that there is very little understanding of challenges that institutions face when they consider virtual reunification as an option to represent dispersed collections online. This discussion begins in chapter 2, which outlines the key characteristics of virtual reunification. By analyzing select reunification projects, both ongoing and concluded, combined with a synthesis of literature on the subject, the chapter also provides four approaches to understanding virtual reunification. Chapter 2 reflects the current thinking on key considerations in virtual reunification as well as gaps and limitations in the literature.

Chapter 3 presents the case study methodology and describes how this particular approach is implemented in terms of designating the dissertation's unit of analysis as well as qualitative data collection and interpretation. This chapter also provides an overview of the conceptual framework that structures the research focus, the scope of the study and its limitations. The chapter also presents an overview of the institutional keepers of Worcester ethnographic photographs, which are the subject of the study.

The bulk of the study's findings are discussed in Chapters 4 and 5. These Chapters cover the grounds where potential tensions, conflict, challenges and barriers that can make

the virtual reunification of the Worcester images a daunting task for institutions. These Chapters also discuss the implications of these challenges and barriers to the proposed approaches for understanding virtual reunification, which constitute the conceptual framework of the study.

Chapter 4 focuses on emergent themes that include considerations of goals, strategies, and priorities for virtual reunification projects. The juxtaposition of various perspectives showcases the variety of perceived outcomes of virtual reunification and the concerns that inspire ideas about reunification products and outputs. Certain determinate features of the case constitute challenges and barriers to virtual reunification: multiple visions of what virtual reunification will achieve, issues of medium and diversity of formats, the ethnographic content of the images, and sense of audience and access controls.

Chapter 5 provides additional areas of potential tensions and conflict. The main themes here include the complex history of dispersion for Worcester's ethnographic photographs, changing conceptions of value among the various stakeholder groups, and the implications for and varied perspectives on ownership of these colonial images.

The study concludes in chapter 6, where I restate the barriers and challenges of reunifying Worcester's dispersed ethnographic archival photographs. I will also consider the implications of the study's findings for pre-reunification decision-making and archival theory.

## CHAPTER 2

### A MODEL FOR VIRTUAL REUNIFICATION

#### 2.1. UNDERSTANDING VIRTUAL REUNIFICATION

##### 2.1.1. Definitions

No one has proposed a comprehensive definition of virtual reunification. Some consensus, however, is apparent in its usage in scholarly articles and published reports. Marilyn Deegan and Simon Tanner, in their enumeration of the benefits of digitization, were among the first to offer a definition. They characterized “virtual reunification” as the possibility for “allowing dispersed collections to be brought together.”<sup>29</sup> More recently, John Unsworth illustrated the process as a gathering together of “scattered archives,” using the Walt Whitman Archive and the William Blake Archive as cases to illustrate this point.<sup>30</sup> Both sources emphasize consolidation, textual analysis, and annotation. Unsworth also discussed options made possible through digitization and online tools. Anne Marie Austenfeld identified several characteristics of virtual reunification and prescribed the following goals:

[a 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.<sup>31</sup>

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<sup>29</sup> Marilyn Deegan and Simon Tanner, *Digital Futures: Strategies for the Information Age* (London: Library Association Publishing, 2002): p. 32.

<sup>30</sup> John Unsworth, “Virtual Reunification of Scattered Archives,” *Symposium on Manuscript Matters, British Library* (London, October 20, 2006). Retrieved from [people.lis.illinois.edu/~unsworth/bl.06.ppt](http://people.lis.illinois.edu/~unsworth/bl.06.ppt).

<sup>31</sup> Anne Marie Austenfeld, “Virtual Reunification as the Future of ‘Codices Dispersi’: Practices and Standards Developed by e-codices—Virtual Manuscript Library of Switzerland,” *IFLA* 36(2) (2010): p. 146.

In practice, 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.”<sup>32</sup> 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.

Products of reunification have been described in a variety of ways, including but not limited to, “electronic editions,” “virtual archives,” “virtual museums,” “online exhibits,” and other variations on these terminologies. Not all projects that result in the virtual reunification of collections necessarily describe their output as “virtual reunification.” The defining characteristic of virtual reunification is the dispersed nature of the collection being assembled, not the terminology used to refer to the resulting online product.

This study defines virtual reunification as follows: the process of putting together physically dispersed heritage collections in order to produce a consolidated digitized representation of scattered artifacts, literary and artistic works, and/or archival records attributable to a single origin or common provenance.

Although analog collections that have been historically dispersed are the objects of reunification (what some may call the “real” objects of reunification), it is the digital surrogates of analog objects that are actually being put together. Hence, the use of “virtual”

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<sup>32</sup> Clifford Lynch, “Special Collections at the Cusp of the Digital Age: A Credo,” *Research Library Issues* (December 2009): p. 5; Austenfeld (2010), p. 145-154; Jeanette Greenfield, “Homecomings: Real and Virtual,” In *The Return of Cultural Treasures* (Cambridge University Press, 2007): p. 364-443; and Unsworth (2006).

appropriately captures at once the two most common uses of the word: (1) simulated, and (2) in essence or effect.<sup>33</sup> Virtual reunification achieves the re-integration of dispersed collections using digital copies. Thus, in essence, it is not physical reunification of objects, but rather a unification of surrogates.

### 2.1.2. Precursors to Virtual Reunification

The inspiration to gather and represent dispersed pieces of collections precedes the availability of digital technology. The assembly of dispersed artworks, archives, and manuscripts has counterparts in the analog world. In music, several compilations of “complete works” or “monumental editions” of renowned artists and composers have been in publication since the mid-seventeenth century.<sup>34</sup> Similarly, “catalogues raisonnés” are compilations of facsimile copies of works of art and have been widely used in art history.<sup>35</sup> The literary world has “scholarly” or “critical” editions that provide not only the complete text, but also accompanying annotations and cross-references. More familiar to the archival community is the production of “historical” editions that can be traced as early as the 17<sup>th</sup> century in the United States.<sup>36</sup>

Robert Riter designates the years between 1943 and 1970 as the modern period of historical editing, a moment of formalization and maturation.<sup>37</sup> This period witnessed the

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<sup>33</sup> Rob Shields, *The Virtual* (New York: Routledge, 2003): p. 2-4.

<sup>34</sup> See Sydney Robinson Charles, et al, “Editions, Historical,” in *Oxford Music Online*, <http://www.oxfordmusiconline.com.proxy.lib.umich.edu/subscriber/article/grove/music/08552pg1> (Accessed September 30, 2012); Heyer, Anna Harriet, *Historical Sets, Collected Editions, and Monuments of Music: A Guide to their Contents* (Chicago: American Library Association, 1980); and George R. Hill and Norris L. Stephens, *Collected Editions, Historical Series and Sets, and Monuments of Music: A Bibliography* (Berkeley: Fallen Leaf Press, 1997).

<sup>35</sup> See <http://www.catalogueraisonne.org>

<sup>36</sup> Richard Cox, “Archives, Documentary Editing, and the Quarrel About Preserving Our Documentary Heritage,” in *Closing An Era: Historical Perspectives on Modern Archives and Records Management* (Connecticut: Greenwood Publishing, 2000): p. 201-202.

<sup>37</sup> Robert Barnett Riter, *Defining and Contextualizing Modern Historical Documentary Editing: An Analysis of Early Modern Editorial, Theory, Methods, and Their Influence on the Production of Documentary Editions, 1943-1970*, Ph.D. Dissertation, University of Pittsburgh, 2011.



publication of several notable editions, such as Julian P. Boyd's *The Papers of Thomas Jefferson*.<sup>38</sup> That moment also saw sustained production of published or microfilmed historical documentary editions supported by the National Historical Publications and Records Commission (NHPRC)<sup>39</sup> for manuscripts deemed valuable "to further public understanding of American history, democracy and culture."<sup>40</sup>

Proponents of virtual reunification acknowledge that

the creators of any virtual reunification project take upon themselves many of the same responsibilities as the editors of quality facsimile editions of texts or other artifacts, including the obligation to provide clear identification of the content, contextual information for further study of that content, and proper acknowledgment of that owners of the physical originals.<sup>41</sup>

Scholars of historical editions have examined the application of electronic and online publishing in the practice of documentary editing and publications management.<sup>42</sup> The field of critical editing is developing ways to refine its established practices and endeavoring to harness the promise of electronic media as "tools that can efficiently manage large bodies of related literary and artistic objects."<sup>43</sup> Jerome McGann, general editor of the *Rossetti Archive*, regards virtual reunification as means to deliver content online with a capacity to "overcome certain of the key limitations of critical editions organized in book form." Furthermore, he

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<sup>38</sup> Julian P. Boyd, ed., *The Papers of Thomas Jefferson, Volume 1, 1760-1776* (Princeton University Press, 1950).

<sup>39</sup> The NHPRC published in 2000 a list of the publications it supported and endorsed over the years. See: NHPRC, *A Descriptive List of Documentary Publications Supported and Endorsed by the National Historical Publications and Records Commission* (Washington: NHPRC, 2000). (Available at <http://www.nara.gov/nara/nhprc/>)

<sup>40</sup> National Historical Publications and Records, "Forty Years of Publishing" *Annotation* 23 (3) (Fall 2004): p. 1.

<sup>41</sup> Austenfeld (2010), p. 146.

<sup>42</sup> Elizabeth H. Dow, et al., "The Burlington Agenda: Research Issues in Intellectual Access to Electronically Published Historical Documents," *American Archivist* 64 (Fall/Winter 2001): p. 292-307; Rolena Adorno, "The Archive and the Internet," *The Americas* 61(1) (July 2004): p. 1-18; and Martha Nell Smith, "The Human Touch Software of the Highest Order: Revisiting Editing as Interpretation," *Textual Cultures: Texts, Contexts, Interpretation* 2(1) (Spring 2007): p. 1-15; and Andrew Prescott, "The Imaging of Historical Documents," In Mark Greengrass and Lorna Hughes, eds., *The Virtual Representation of the Past* (Ashgate, 2008): p. 7-22.

<sup>43</sup> Jerome McGann, "Visible and Invisible Books: Hermetic Images in N-Dimensional Space," In Peter Stoicheff and Andrew Taylor, eds., *The Future of the Page* (Toronto: University of Toronto Press, 2004): p. 143-158.

argues, “digital tools can execute many of the tasks of scholarly editing much better, much more thoroughly, and much more precisely than books can.”

### **2.1.3. Characteristics of Virtual Reunification**

Digitizing artifacts, literary or artistic works and subsequently making them accessible over the Internet is becoming a platform for inter-institutional cooperative endeavors. It is necessary to emphasize that while digitization is an essential step to virtual reunification, not all digitization and online projects are “reunification” efforts. Certain characteristics distinguish virtual reunification from other digital projects. What sets virtual reunification apart, other than its reliance on digital surrogates and the affordances of digitized images, are several key features such as the technical and expertise required to accomplish the task, processes involved, and expected outcomes discussed further below.

Proponents of virtual reunification projects assume that certain collections are best accessed or experienced in their entirety; that there is great value in experiencing the whole over its scattered parts.<sup>44</sup> Products of reunification, however, do not merely piece together fragments to make them whole again. Other web functionalities and features are afforded to online users. Among features available to digital, online collections are hyperlinks, search and retrieval options, commentaries and annotations, metadata, descriptions of the item’s physical condition, text editing, translations, and historical narratives. Thus, implementing a virtual reunification project requires knowledge and expertise beyond the context, content, and format of the collection. Pursuing this project also requires technical expertise in diverse areas such as conservation, digitization, web design, object description, metadata and online curation. The process also requires equipment and tools, such as scanners, for transforming,

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<sup>44</sup> Helen Shenton, “Virtual Reunification, Virtual Preservation and Enhanced Conservation,” *Alexandria* 21(2) (2009): p. 33-45; and Austenfeld (2010), p. 145-154.

rendering, and visualizing analog materials into digital format. Furthermore, it involves making decisions involving quality, authenticity, and the capacity to make appraisals in the context of online representation and interpretation.

Virtual reunification is more challenging than creating digital editions within one institution. The inter-institutional component of reunification requires coordination among institutions that may have uncommon digitization programs, priorities and strategies. The diversity of repositories involved could also mean divergence in terms of collecting missions and policies for exhibiting, describing and accessing collections. Virtual reunification thus requires complex negotiation among owning institutions and can only proceed through inter-institutional collaboration.

Successful virtual reunification projects typically benefit from multi-institutional funding and support, engage a variety of artifacts of various formats or genres, and often involve several other heritage repositories and stakeholders. Availability of funding is an important aspect of reunification. However, how heritage professionals and administrators consider funding when deciding to proceed with a common digitization project requires further examination. Is cooperation largely driven by the availability of grant funds? Or is it perhaps this type of cooperation that motivates funding agencies to allocate resources for such an endeavor? While there seems to be a characteristically strong correlation between available funding and multi-institutional cooperation, the nature and dynamic of this relationship has not been fully explored.

Reports examining virtual reunification mention its capacity for facilitating digital repatriation. For instance, Helen Shenton of the British Library, notes that virtual reunification projects

do not only enable the virtual reconstruction of cultural heritage but create a different digital entity; enable vastly enhanced general access; enable greatly

enhanced revelation of both the intellectual and physical elements of collections; and engage with *cultural diplomacy*.<sup>45</sup> (Emphasis added)

Clifford Lynch 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.<sup>46</sup>

According to Austenfeld,

The technology available in the 21<sup>st</sup> century offers an opportunity to diffuse the political tensions and logistical problems associated with dispersed collections by allowing us to reunify them virtually.<sup>47</sup>

Thus, the 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<sup>48</sup> around some of the most historically contentious issues of ownership and access to certain cultural objects.<sup>49</sup>

My analysis of literature reveals collaboration to be an important feature of virtual reunification. Collaboration occurs in various configurations. For example, some collaborations are intra-institutional, involving various units within an institution, i.e., conservation, exhibition design, public outreach, and web design. Collaboration could also be discipline-oriented, such as cooperation among art historians and writers, computer scientists and Hebrew scholars. Another collaborative possibility could be field-specific, i.e., conservators, curators, archivists, librarians, as well as literary editors. At times, collaboration takes on an international dimension because some dispersed collections cross national jurisdictions that require legal intervention.

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<sup>45</sup> Shenton (2009), p. 33-45

<sup>46</sup> Lynch (December 2009), p. 5

<sup>47</sup> Austenfeld (2010), p. 153

<sup>48</sup> Greenfield (2007): p. 364-443

<sup>49</sup> Clifford Lynch, "Repatriation, Reconstruction, and Cultural Diplomacy in the Digital World," *EDUCAUSE Review* 43 (1) (January/February 2008): p. 70-71.

In summary, collaborations for virtual reunification are geographic or regional, institutional, professional or field-specific, or disciplinary. The products of cooperative endeavors under reunification are likewise varied, ranging from identification of common metadata elements to design of web interfaces to adoption of bibliographic description standards to creation of digitization protocols.

## **2.2. A MATTER OF GOALS, PROCESS, AND OUTCOMES**

This section outlines an overview of selected virtual reunification projects and the motivations that drive the digital (re)integration of cultural objects. It draws on a number of examples to present common rationales for virtual reunification that illustrate what the process can accomplish. The overview offers perspective on some of the more recent applications of virtual reunification and the corresponding ideas that inspire them. This is important to set my case study in the context of virtual reunification as amore general phenomenon. Although not exhaustive, these examples best represent and illustrate the key ideas that complicate contemporary virtual reunification projects. While each sample is identified under a certain category of purpose, it is not by any means exclusive to that category as one project can exemplify several objectives or concerns at once.

I chose projects based on two criteria. First, the project consolidates a dispersed collection using digital technology. Second, the effort has been recognized as a virtual reunification effort either by those involved in the project or by a third party through reports or publications. The projects discussed here are summarized in Table 2.1.

**Table 2.1.** Sample Virtual Reunification Projects and Their URLs.

DISPERSED COLLECTION	PROJECT NAME	URL
Manuscripts from the Abbey Library of St. Gall	<i>Codices Electronici Sangallenses</i> (Digital Library of St. Gall), and later incorporated in <i>e-codices: Virtual Manuscript Library of Switzerland</i>	<a href="http://www.e-codices.unifr.ch">http://www.e-codices.unifr.ch</a>
Leaves of the <i>Codex Sinaiticus</i>	<i>Codex Sinaiticus</i>	<a href="http://codexsinaiticus.org/en">http://codexsinaiticus.org/en</a>
Fragments of the Cairo Genizah	<i>Penn/Cambridge Genizah Fragment Project</i>	<a href="http://sceti.library.upenn.edu/genizah">http://sceti.library.upenn.edu/genizah</a>
Sculptures of the Parthenon	<i>The Parthenon Sculpture Gallery</i>	<a href="http://gl.ict.usc.edu/parthenongallery">http://gl.ict.usc.edu/parthenongallery</a>
Works of Walt Whitman	<i>Walt Whitman Archive</i>	<a href="http://www.whitmanarchive.org">http://www.whitmanarchive.org</a>
Works of William Blake	<i>William Blake Archive</i>	<a href="http://www.blakearchive.org/blake">http://www.blakearchive.org/blake</a>
Works of Dante Gabriel Rossetti	<i>Dante Gabriel Rossetti Hypermedia Archive</i>	<a href="http://www.rossettiarchive.org">http://www.rossettiarchive.org</a>
Works of Mark Twain	<i>Mark Twain Papers and Project</i>	<a href="http://www.marktwainproject.org">http://www.marktwainproject.org</a>
Works Jane Austen	<i>Jane Austen's Fiction Manuscripts Digital Edition</i>	<a href="http://www.janeausten.ac.uk/index.html">http://www.janeausten.ac.uk/index.html</a>
Quaker antislavery papers	<i>Quakers and Slavery Project</i>	<a href="http://trilogy.brynmawr.edu/speccoll/quakersandslavery/about/index.php">http://trilogy.brynmawr.edu/speccoll/quakersandslavery/about/index.php</a>
King Frederik III Danish Renaissance collection	<i>The King's Kunstkammer</i>	<a href="http://www.kunstkammer.dk/GBindex.shtml">http://www.kunstkammer.dk/GBindex.shtml</a>
Manuscripts and artifacts from Dunhuang	<i>International Dunhuang Project: The Silk Road Online</i>	<a href="http://idp.bl.uk">http://idp.bl.uk</a>
William Muschenheim architectural pictures and drawings	<i>Muschenheim Digital Archive</i>	<a href="http://bentley.umich.edu/exhibits/musch/index.html">http://bentley.umich.edu/exhibits/musch/index.html</a>

These projects pursue virtual reunification for many reasons. I have identified seven major reasons: 1) transcend geographic dispersion for objects that cannot be physically reunited due to vague or contentious ownership concerns, 2) overcome physical limitations of formats and genre, 3) collaborate with institutions holding complementary collections, 4) show how dismantled collections or missing fragments of artifacts appeared in their entirety, 5) preserve or conserve original artifacts, 6) represent or exhibit collections in a new way by means of new and emerging technology, and, finally, 7) open up opportunities for

institutions to work collaboratively with researchers and scholars in making an online product.

At the onset, I wish to note that the motivating reasons enumerated and discussed below are features not necessarily exclusive to virtual reunification. For instance, the capacity to bridge geographic distance, overcome physical limitations, or conserve and preserve fragile items are benefits afforded by digitization in general. Virtual reunification relies on some of the notable characteristics and affordances of digitized images.

### **2.2.1. Bringing Together Objects That Cannot Be Physically Reunited**

Virtual reunification harnesses the capacity of digitized materials to be brought together to overcome geographic distance. Some heritage objects have a vague, if not contested, ownership status that physical reunification under present political or economic conditions is almost impossible. This is complicated by jurisdictional uncertainties and divergent institutional values and priorities. In this case, virtual reunification is implemented as a way to transcend the challenges of separation and distance for objects that cannot be physically re-integrated.

The scattered manuscripts of the Abbey Library of St. Gall offer a prominent example of virtual reunification dealing with vague ownership status. This project is part of the larger *e-codices: Virtual Manuscript Library of Switzerland*, an effort to build a virtual library of medieval and early modern manuscripts held in Swiss repositories.<sup>50</sup> The project, formerly known as the *Codices Electronici Sangallenses* (Digital Library of St. Gall), attempts to reunite scattered parts of several medieval manuscripts formerly held by the Abbey Library of St. Gall, a Swiss scriptorium whose collection found its way into various European institutions

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<sup>50</sup> See <http://www.e-codices.unifr.ch> (Accessed October 16, 2011)

through numerous relocations, theft and looting. Through a unified web portal hosted by the Université de Fribourg, the former collection of manuscripts is now represented in a unified, but virtual, collection. In addition to reuniting the manuscripts, descriptive metadata is provided in German, French, and Italian as well as English.

Another example is the reassembly of the oldest copy of the New Testament Bible, the *Codex Sinaiticus*, whose leaves are divided up in four repositories, the Leipzig University Library, the British Library, the St. Catherine's Monastery in Mount Sinai and the National Library of Russia.<sup>51</sup> Efforts to reunify the manuscript began in March 2005, and since July 2009, all extant copies of the various sections of *Codex Sinaiticus* have been available online. In addition to high-resolution copies of all extant pages of the codex, the site provides transcriptions of its handwritten texts. Visitors to the site are also provided with descriptions of the manuscript's physical condition. A team of researchers is currently compiling and studying archival sources in order to provide a fuller narrative of the manuscript's story of dispersion.

These examples—the manuscripts of the Abbey Library of St. Gall and the *Codex Sinaiticus*—illustrate how virtual reunification can bring together dispersed objects. The compromise avoids conflicts over ownership and control over the physical objects. Whether or not virtual reunification satisfies the need of rightful owners of these collections to gain control over these contested heritage objects is an interesting matter to pursue in future studies.

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<sup>51</sup> See <http://codexsinaiticus.org/en/> (Accessed October 16, 2011)



### 2.2.2. Physical Challenges of Assembling the Original Material

In other cases, virtual reunification responds to challenges posed by the nature and the various components of the objects themselves. Varying formats and diverse genres pose difficulty in assembling dispersed works into one physical product. The works of *William Blake Archive*<sup>52</sup> and the *Dante Gabriel Rossetti Hypermedia Archive* are reunification efforts that respond to these challenges.<sup>53</sup> Both projects focus on renowned auteurs, William Blake (printmaker, engraver and painter) and Dante Gabriel Rossetti (poet, illustrator, painter and translator), who in their lifetimes produced several artistic and literary works of various formats and genre.<sup>54</sup> Both authored diverse multimedia creations, so virtual reunification has been useful to assemble their complete works through a unified, hyperlinked resource.

Texts that appeared in several editions, with each published version bearing some form of revision, present another set of challenges to contemporary editors of critical editions. The *Walt Whitman Archive*<sup>55</sup> aims to gather all editions and versions of the works of the famous American writer. Institutions find the hyperlinking capabilities of the online environment to be the most ideal platform for representing works of Whitman.<sup>56</sup> The online platform also enables users and editors of the site to link up related or contextual archives or documentation to certain works. A letter or a diary entry may provide a pivotal insight into the understanding of a novel or a verse. The *Mark Twain Papers and Project*<sup>57</sup> of the Bancroft Library at UC Berkeley aims ultimately to “produce a digital critical edition, fully annotated, of everything Mark Twain wrote.”<sup>58</sup> Similarly, the *Jane Austen’s Fiction Manuscripts Digital*

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<sup>52</sup> See <http://www.blakearchive.org/blake/> (Accessed October 16, 2011)

<sup>53</sup> See <http://www.rossettiarchive.org/> (Accessed October 16, 2011)

<sup>54</sup> Steven E. Jones, “The William Blake Archive: An Overview,” *Literature Compass* 3(3) (2006): p. 409-416.

<sup>55</sup> <http://www.whitmanarchive.org/> (Accessed October 16, 2011)

<sup>56</sup> Ed Folsom, “Database as Genre: The Epic Transformation of Archives,” *PMLA: Publications of the Modern Language Association of America* 122(5) (October 2007): p. 1571-1579.

<sup>57</sup> See <http://www.marktwainproject.org/> (Accessed October 16, 2011)

<sup>58</sup> See <http://www.marktwainproject.org/> (Accessed October 16, 2011)

*Edition*<sup>59</sup> gathers together around 1,100 pages of fiction written in the writer's own hand.<sup>60</sup> In these projects, networked technology is used to provide transcriptions, sometimes even translations, of written texts alongside images of the actual document.

The online archives of Blake, Whitman, Rossetti, Twain, and Austen all illustrate how virtual reunification is used to manage the geographic dispersion of artistic works of a single individual, while overcoming the limitations inherent in their physical makeup, such as diversity of formats and genre.

### 2.2.3. Combining Complementary Collections

Some virtual reunification projects are simply driven by institutional desires to share complementary collections. The Haverford and Swarthmore Colleges, for instance, are currently coordinating to produce their combined holdings of Quaker antislavery collections in the *Quakers and Slavery Project*.<sup>61</sup> The *Muschenheim Digital Archive* project initiated by the Bentley Historical Library at the University of Michigan brings together selected pictures and drawings of the architectural work of William Muschenhiem.<sup>62</sup> Not all virtual reunification projects aim to deliver comprehensiveness. Sometimes, institutions endeavor to present only representative items from participating repositories for purposes of consistency, focus, and expediency. In this project, select representative samples of Muschenheim's works found at Bentley Library and the Avery Architectural and Fine Arts Library at Columbia University were assembled through in an interactive website.

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<sup>59</sup> See <http://www.janeausten.ac.uk/index.html> (Accessed October 16, 2011)

<sup>60</sup> Kathryn Sutherland and Elena Pierazzo, "The Author's Hand: From Page to Screen," In Marilyn Deegan and Willard McCarty, eds., *Collaborative Research in the Humanities* (Ashgate, 2012): p. 191-212.

<sup>61</sup> See <http://trilogy.brynmawr.edu/speccoll/quakersandslavery/about/index.php> (Accessed October 16, 2011)

<sup>62</sup> <http://bentley.umich.edu/exhibits/musch/index.html> (Accessed October 16, 2011)

#### 2.2.4. “Visualizing” the Whole

Virtual reunification can also be used to create visualizations that illustrate particular aspects or foster analysis of a given collection. For example, a visualization may show how long-lost or dispersed collections may have appeared at a time when they were intact. The *King’s Kunstkammer* recreates the dismantled Danish Renaissance collection of King Frederik III, whose artifacts were subsequently distributed to various public museums in Denmark in early the 1800’s.<sup>63</sup> This project offers the public a way to appreciate collections that were once together but were later distributed to various other museums.<sup>64</sup> The *International Dunhuang Project: The Silk Road Online* is an international collaboration to provide all manuscripts, paintings, textiles and artifacts from Dunhuang and archaeological sites along the Eastern Silk Road.<sup>65</sup> Aside from presenting identifiable objects, the project also attempts to reconstruct the missing parts of certain artifacts.<sup>66</sup> Virtually reconstructing missing pieces of a sculpture can help those trying to locate the institutions where the missing fragments might be found. Visual renderings of archaeological items help institutions verify their provenance by consulting registries of looted artifacts.

Sculptures taken from the Parthenon, one of the most prominent remnant sites of antiquity, have also been subject to virtual reconstruction.<sup>67</sup> Several sculptures of the Parthenon are now held by the British Museum, the Musée du Louvre in Paris, the Vatican Museums in Rome, the National Museum of Denmark, the Kunsthistorisches Museum in Vienna, the University Museum of Würzburg, and the Glyptothek in Munich. Some

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<sup>63</sup> See <http://www.kunstkammer.dk/GBindex.shtml> (Accessed October 16, 2011)

<sup>64</sup> Bente Gundestrup and Tine Wanning, “The King’s Kunstkammer: Presenting Systems of Knowledge on the Web,” In David Bearman and Jennifer Trent, eds., *Museums and the Web 2004: Proceedings* (Toronto: Archives and Museum Informatics, 2004). (Available at <http://www.archimuse.com/mw2004/papers/gundestrup/gundestrup.html>)

<sup>65</sup> See <http://www.idp.bl.uk> (Accessed October 16, 2011)

<sup>66</sup> B. Lutz and M. Weintke, “Virtual Dunhuang Art Cave: A Cave within a CAVE,” *Computer Graphics Forum* 18(3) (1999): p. 257-264.

<sup>67</sup> See <http://gl.ict.usc.edu/parthenongallery/> (Accessed October 16, 2011)

sculptures remained in Greece and are now kept by the Acropolis Museum in Athens. The British Museum, holding a significant portion of the sculptures known as the “Elgin Marbles,” has recently been at the center of the debates over the marbles’ rightful ownership and the legality of their removal from Greece and their subsequent acquisition into the museum.<sup>68</sup>

The Parthenon *Sculpture Gallery*, initiated by the Institute for Creative Technologies of the University of Southern California, involved the scanning of all available casts of the Parthenon sculptures from the Basel Skulpturhalle in Switzerland, which houses a unique collection of plaster casts of all the known Parthenon sculptures.<sup>69</sup> Notably, in spite of the availability of virtually reunified sculptures, the Greek government and its supporters continue to lobby for their return to Greece. In fact, activists advocating for the repatriation of the marbles sometimes use the virtually reunified images of the Parthenon to push the idea of a “complete” or reunified look in their campaigns to repatriate and physically reunify the marbles.<sup>70</sup>

### 2.2.5. Experiment with New Technologies

Virtual reunification also presents the opportunity for institutions to experiment with new and emerging technology to provide novel ways of representing objects. For instance, creators of the *Whitman Archive* cited technology and “new developments in electronic editing and the new digital archives that were only then beginning to appear” in the early

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<sup>68</sup> Christopher Hitchens, *The Parthenon Marbles: The Case for Reunification* (Verso, 2008) and Yannis Hamilakis, “Stories From Exile: Fragments From the Cultural Biography of the Parthenon (or ‘Elgin’) Marbles,” *World Archaeology* 31(2) (1999): p. 303-320.

<sup>69</sup> Jessi Stumpf, et al., “Digital Reunification of the Parthenon and Its Sculptures,” In D. Arnold, A. Chalmers, and F. Niccolucci, eds., *Fourth International Symposium on Virtual Reality, Archeology and Intelligent Cultural Heritage* (2003). (Available at <http://gl.ict.usc.edu/parthenongallery/ParthenonSculptures-Vast03-fin-prt.pdf>)

<sup>70</sup> See, for instance, <http://www.elginism.com> (Accessed September 30, 2012)

1990's as the main impetus of the project.<sup>71</sup> Another example of virtual reunification that was largely motivated by technological experimentation is the *Parthenon Sculpture Gallery*. Produced under the auspices of the University of Southern California's Institute for Creative Technologies (ICT) graphics lab, the online sculpture gallery demonstrates the capability of the 3D scanning technology that ICT had previously developed. In both examples, the desire to explore innovative ways of presenting humanistic works was among the impetus for virtual reunification.

While having the capacity to deliver artifacts in their entirety, virtual reunification also provides enhanced access by adding other services and functionalities. Shenton suggests that virtual reunifications provide “a new digital resource with features that the original could not itself provide.”<sup>72</sup> Manuscript librarians Austenfeld and Shenton are in agreement that virtually reunified collections are best considered as new entities.<sup>73</sup>

### **2.2.6. Preservation and Conservation**

Preservation and conservation concerns are also mentioned as motivating factors for reunification. In some projects dealing with fragile manuscripts, conservation work was deemed a precondition for digitization.<sup>74</sup> In her discussion of the reunification of the *Codex Sinaiticus*, Helen Shenton identifies several “conservation dividends” resulting from the reunification of the oldest existing biblical manuscript.<sup>75</sup> These include the reduction of usage of the original, and facilitating a common condition documentation strategy. In addition, she also noted how digitization could enhance the capacity for viewing surface conditions of the manuscript, thus aiding condition assessment.

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<sup>71</sup> <http://whitmanarchive.org/about/history.html>

<sup>72</sup> Shenton (2009): p. 34

<sup>73</sup> Shenton (2009) and Austenfeld (2010)

<sup>74</sup> Henschke (2007) and Shenton (2009)

<sup>75</sup> Shenton (2009)

### **2.2.7. Opportunities and Necessities of Collaboration**

Collaboration is cited as an important feature of virtual reunification.<sup>76</sup> There are two motivating factors why institutions collaborate. The first is a response to funding and public pressures to engage in cooperative endeavors with similar repositories. Hence, proponents of reunification are motivated by both desire and expectation to collaborate with other institutions. Institutional participation in virtual reunification is an opportunity for heritage institutions to fulfill this sense of obligation. Second, collaboration is necessary for virtual reunification to succeed. Institutions with complementary collections find ways to coordinate, create partnerships, pull their resources together, and create common workflows in order for their collections to be reunited. In virtual reunification, collaboration is both an opportunity and a necessity.

Collaboration in the context of virtual reunification can be geographic or regional, institutional, professional or field-specific, and disciplinary. The product of cooperative endeavors under reunification can be as varied as the types of objects that are targeted for reunification. Collaboration may involve people external to the organization, or another peer institution. It can also be intra-institutional; for instance, between an institution's conservation, exhibition design, public outreach, and web design departments. Collaboration may also be disciplinary-oriented, such as cooperation among art historians and writers, computer scientists and Hebrew scholars. Other collaborative formations could be across functional roles, e.g., conservators, curators, archivists, librarians, as well as literary editors. At times, collaboration takes on an international dimension as some collections are scattered across national jurisdictions and will require legal intervention.

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<sup>76</sup> Shenton (2009), Austenfeld (2010), Henschke (2007), Shenton (2009), and Lynch (January/February 2008).

The *Penn/Cambridge Genizah Fragment Project*<sup>77</sup> is a collaborative endeavor that aims to ultimately reunite about 220,000 fragments of various documents recovered from the Cairo *Genizah*. A *genizah* is a site for the storage of texts that mention the name of God, which in the Jewish tradition cannot be destroyed. The fragments are currently found across seventeen repositories in the U.S., the U.K., France, Russia, Austria, Hungary, Ukraine, and Israel. Selected fragments digitized from the combined holdings of the University of Pennsylvania, Cambridge University and Jewish Theological Seminary of America libraries are now available online. Metadata experts, manuscripts curators, web designers, and Hebrew scholars were involved in this reunification project.

Several experts from various domains were likewise involved in the reunification of the manuscripts of the Abbey Library of St. Gall, the Whitman Archive, and the Cairo *Genizah* projects. All three projects consist of scholars, manuscripts librarians, conservators, and digitization experts. The same holds true in varying degrees for other reunification efforts cited above.

Collaboration happens at a variety of levels, contexts or settings. As suggested earlier, the convergence of several entities and expertise presents a critical factor in the success of virtual reunification. Thus, collaboration could be at the level of several owning institutions forming an inter-institutional collaboration to coordinate the digitization and bibliographic description, like the *Penn/Cambridge Genizah Fragment Project*. It could also be several institutions with complementary expertise and resources converging to produce a unified online product. Such is the case of the *Mark Twain Papers and Project*, which involves the UC Berkeley Bancroft Library, the California Digital Library and the UC Press.<sup>78</sup>

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<sup>77</sup> See <http://sceti.library.upenn.edu/genizah/> (Accessed October 16, 2011)

<sup>78</sup> Dayna Holz, "Technologically Enhanced Archival Collections: Using the Buddy System," *Journal of Library Organization* 4(1/2) (2006): p. 29-44.

### 2.2.8. Summary

Products of reunification do not simply reassemble various fragments to become whole again. As the foregoing discussion shows, virtual reunification serves various purposes and objectives. Table 2.2 summarizes the variety of motivations exemplified by the projects discussed here.

**Table 2.2.** Common Characteristics of Selected Virtual Reunification Projects

PROJECT NAME	MOTIVATIONS						
	Bridge geographic distance	Limitations of analog formats and genres	Combine Complementary Collections	“Visualize” the Whole	Preservation/ Conservation	Experiment with New Technologies	Collaboration
<i>Codex Sinaiticus</i>	x				x	x	x
<i>Dante Gabriel Rossetti Hypermedia Archive</i>		x				x	x
<i>e-codices: Virtual Manuscript Library of Switzerland</i>	x				x	x	x
<i>International Dunhuang Project: The Silk Road Online</i>	x			x			x
<i>Jane Austen’s Fiction Manuscripts Digital Edition</i>		x				x	x
<i>Mark Twain Papers and Project</i>		x	x			x	x
<i>Muschenheim Digital Archive</i>		x	x			x	x
<i>Penn/Cambridge Genizah Fragment Project</i>	x	x			x	x	x
<i>Quakers and Slavery Project</i>			x				x
<i>The King’s Kunstkammer</i>	x			x		x	
<i>The Parthenon Sculpture Gallery</i>	x			x		x	
<i>Walt Whitman Archive</i>		x				x	x
<i>William Blake Archive</i>		x				x	x

Attributes of successful virtual reunification projects can be gleaned from available projects and literature. The overview of these projects indicates that their success is



measured by whether or not they achieved the goal of creating a common online product that integrates or showcases a dispersed collection. Successful reunification efforts share in common the following attributes: institutional collaboration, development of common procedural protocols, adherence to established technical standards, funding support, scholarly and research demands, and involvement of various experts.<sup>79</sup>

### **2.3. LIMITATIONS OF THE LITERATURE**

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 images or photographic materials. In addition, barriers are posed by the sociotechnical challenges of standards and processes as well as the stakeholders driving development. Finally, collaboration efforts between large institutions are difficult to manage and require significant planning and management of collaboration.

#### **2.3.1. Lack of Focus on Photographic Collections**

The majority of extant virtual reunification projects, or planned projects, focus on literary works, manuscripts, works of art, and archaeological artifacts. There is no significant literature that deals with photographs and their needs in virtual reunification projects. Photographic materials have not been explored in terms of their potential or challenges in virtual reunification projects.

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<sup>79</sup> Austenfeld (2010); Jones (2006); Zeki Mustafa Dogan and Alfred Scharsky, "Virtual Reunification of the Earliest Christian Bible: Digitisation, Transcription, Translation and Physical Description of the Codex Sinaiticus," In B. Christensen-Dalsgaard, et al., eds., *EDCL 2008: Proceedings of the 12<sup>th</sup> European Conference on Research and Advanced Technology for Digital Libraries* (Denmark, 2008): p. 221-226; Jessi Stumpfel, et al. (2003); Ekkehard Henschke, "Digitizing the Hand Painted Bible: The Codex Sinaiticus, Its History and Modern Presentation," *Libri* 57 (2007): p. 45-51; Elisabeth Eide, "Dispersed Collections Virtually Rejoined?" *World Library and Information Congress: 76<sup>th</sup> IFLA General Conference and Assembly* (Gothenburg, Sweden, August 10-15, 2010) (Available at <http://www.ifla.org/files/hq/papers/ifla76/99-eide-en.pdf>).

There is ongoing discussion about the challenges of describing photographs in archival collections.<sup>80</sup> Still, no model exists for the virtual reunification of a photographic collection. Thus, the challenges of representation, metadata, and description for archival images present significant issue for a prospective virtual reunification project dealing with this type of collection.

### **2.3.2. Problematic Nature of 'Return'**

Various reports and projects tout the possibility of “returning” materials to source communities.<sup>81</sup> Shenton, Lynch, and Austenfeld argue that virtual reunification can offer the unique affordance to return complex and fragile objects more easily through digital surrogates than does physical repatriation. Objects of virtual repatriation focus largely on archaeological artifacts, medieval manuscripts or literary works that may have entirely different set of concerns than indigenous collections. There are studies around community outreach and physical repatriation as well as the impact of these practices on institutional

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<sup>80</sup> Allen C. Benson, “The Archival Photograph and Its Meaning: Formalisms for Modeling Images,” *Journal of Archival Organization* 7 (2009): p. 148-187; Joan M. Schwartz, “Coming to Terms with Photographs: Descriptive Standards, Linguistic ‘Othering’ and the Margins of Archivry,” *Archivaria* 54 (2000): p. 142-171; Jeffrey Mifflin, “Visual Archives in Perspectives: Enlarging on Historical Medical Photographs,” *American Archivist* 70 (Spring/Summer 2007): p. 32-69; Tim Schlak, “Framing Photographs, Denying Archives: The Difficulty on Focusing on Archival Photographs,” *Archival Science* 8 (2008), p. 85-101; Brian Stewart, “Getting the Picture: An Exploratory Study of Current Indexing Practices in Providing Subject Access to Historic Photographs,” *The Canadian Journal of Information and Library Science* 34(3) (2010): p. 297-327; and Nancy Bartlett, “Diplomatics for Photographic Images: Academic Exoticism?,” *American Archivist* 59 (Fall 1996): p. 486-494.

<sup>81</sup> Shenton (2009), Austenfeld (2010), and Lynch (January/February 2008).

and community relations.<sup>82</sup> In recent years, authors paid attention to digitization of indigenous artifacts and online representation of indigenous cultures.<sup>83</sup>

Digital repatriation is a relatively recent possibility, but the practice has gained some attention from scholars, owning institutions, and source communities.<sup>84</sup> While members of the LAM community have begun to address the issues surrounding repatriation practices,<sup>85</sup> more work needs to be done to understand the effectiveness of return via digital methods. In particular, the field needs more empirical research on the adoption of virtual reunification as a strategy for repatriation, including the logistics and negotiations of contacting and working with source communities.

### 2.3.3. Emphasizing Successes Over Barriers and Challenges

Reports cited in this chapter 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

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<sup>82</sup> Laura Peers and Alison K. Brown, *Museums and Source Communities: A Routledge Reader* (New York: Routledge, 2003); Alison K. Brown and Laura Peers (with members of the Kainai Nation), *Pictures Bring Us Messages: Photographs and Histories From the Kainai Nation* (Toronto: University of Toronto Press, 2006); and Elazar Barkan, "Amending Historical Injustices: The Restitution of Cultural Property," In Elazar Barkan and Ronald Rush, eds., *Claiming the Stones, Naming the Bones: Cultural Property and the Negotiation of National and Ethnic Identity* (The J. Getty Trust, 2002): p. 16-46.

<sup>83</sup> Saskia Vermeylen and Jeremy Pilcher, "Let the Objects Speak: Online Museums and Indigenous Cultural Heritage," *International Journal of Intangible Cultural Heritage* 4 (2009): p. 60-78; Martin Naka, et al., Indigenous Digital Collections: An Early Look at the Organisation and Culture Interface," *Australian Academic and Research Libraries* 39(4) (December 2008): p. 223-236; Lorraine Roy and Mark Christal, "Digital Repatriation: Constructing Culturally Responsive Virtual Museum Tour" *Journal of Library and Information Science* 28(1) (April 2002): p. 14-18; Jeremy Pilcher and Saskia Vermeylen, "From Loss of Objects to Recovery of Meanings: Online Museums and Indigenous Cultural Heritage," *M/C Journal* 11(6) (2008) (Available <http://journal.media-culture.org.au/index.php/mcjournal/article/viewArticle/94>, Accessed October 1, 2012); and Peter Dawson, Richard Levy, and Natasha Lyons, "Breaking the Fourth Wall: 3D Virtual Worlds As Tools for Knowledge Repatriation in Archaeology," *Journal of Social Archaeology* 11(3) (2011): p. 387-402.

<sup>84</sup> David A. Smith, "From Nunavut to Micronesia: Feedback and Description, Visual Repatriation and Online Photographs of Indigenous Peoples," *Partnership: the Canadian Journal of Library and Information Practice and Research* 3(1) (2008): 1-19; and Kate Henessy, "Virtual Repatriation and Digital Cultural Knowledge," *Anthropology News* (April 2009): p. 5-6.

<sup>85</sup> Kimberly Christen, "Opening Archives: Respectful Repatriation," *American Archivist* 74 (Spring/Summer 2011): p. 185-210; Ivan Boserup, "The Manuscript and the Internet: Digital Repatriation of Cultural Heritage," *IFLA Journal* 31(2) (2005): p. 169-173; and Jane Lyndon, "Return: The Photographic Archive and Technologies of Indigenous Memory" *Photographies* 3(2) (2010): p. 173-187.

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.<sup>86</sup>

### **2.3.4. Open Distinctions Between Drivers and Technical Challenges**

#### ***Researcher-Driven vs. Institutionally-Driven Projects***

Given their technical requirements and systems-based nature, virtual reunification projects would seem to be more institutionally driven than projects in the realm of print editions. Previous projects and analyses, however, have not paid close attention to possible distinctions between researcher-driven and institutionally-driven concerns in virtual reunification projects. While the role of an editor of a critical edition, for example, has typically been filled by a scholar whose work specifically focused on a body of work by a particular writer, the editorial role in digital scholarship has been more diffused and, often, included technical responsibility.<sup>87</sup> In a print-based project, access models typically emphasized provision of copies and reproduction rights, whereas in digital projects, concerns regarding digital infrastructural support, knowledge of metadata standards, and long-term preservation and hosting are required. Virtual reunification projects have seemingly featured more active and engaged participation from institutions. Thus, virtual reunification projects may be seen to require more institutional efforts than previous editorial projects. For example, editors of the Mark Twain Project Online describe learning the challenges posed by learning the “mysteries of electronic editing,” and ultimately (after

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<sup>86</sup> Shenton (2009); Austenfeld (2010); Lynch (January/February 2008); and Lerner and Jerchow (2006)

<sup>87</sup> Folsom (2007) and McGann (2004).

experimenting with near-obsolete SGML in 2002) collaborated with the California Digital Library to supply the “expertise of a kind the very experienced editors could not hope to acquire for themselves” around text-encoding, database construction and architecture, and digital preservation.<sup>88</sup> The literature, however, does not make clear distinctions between institutional and researcher roles, and it is not clear how these changes may affect project outcomes and products.

### *The Role of Standards*

Standards often influence workflow processes, but their relationship to product outcomes is unclear. It is difficult to tell how much the process of assembling and building virtual reunification projects relies on standards. Many project reports discuss, for example, how metadata standards were adopted, adapted, and ultimately appropriated. In the *Penn/Cambridge Genizah Fragment Project*, a great deal of effort was put into adapting and appropriating the *MARC 21 Format for Bibliographic Data* for cataloguing and metadata consolidation.<sup>89</sup> It is not clear, however, how much the content and nature of the *genizah* fragments determined this choice or if it was due to the participation of numerous librarians in the project. One wonders, for example, how the outcomes may have differed if the project proponents chose to implement archival description standards such as ISAD(G) or DACS using *MARC 21*. Even though virtual reunification projects have relied on the implementation and appropriation of existing standards in relation to the objects of reunification, target outcomes, and processes involved, no clear model of how to conceptualize these relationships has been proposed.

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<sup>88</sup> “Mark Twain Project: Project History,” available at [http://www.marktwainproject.org/about\\_projecthistory.shtml](http://www.marktwainproject.org/about_projecthistory.shtml), and “Mark Twain Project: The making of MTPO,” available at [http://www.marktwainproject.org/about\\_makingMTPO.shtml](http://www.marktwainproject.org/about_makingMTPO.shtml) (both accessed 1 October 2012).

<sup>89</sup> Lerner and Jerchow (2006)

### 2.3.5. Lack of Attention to Inter-Institutional Collaboration

One major insight of the literature surveyed is that virtual reunification often involves the collaboration of institutions with varied sizes, expertise, resources, and priorities. Yet, few studies give a detailed perspective on how the collaborations of institutions involved play out in a given project. There is significant literature regarding how the structure and dynamics of inter-institutional collaboration can lend insight into inter-organizational cooperation.<sup>90</sup>

Particularly relevant to virtual reunification are the determinants of inter-organizational cooperation,<sup>91</sup> such as the dynamics of power and influence in the negotiation of goals, values, and missions,<sup>92</sup> challenges of communication and coordination,<sup>93</sup> trust in alliances and cooperation,<sup>94</sup> appropriation and use of technology,<sup>95</sup> sharing of resources and expertise,<sup>96</sup> and the physical proximity of institutions involved.<sup>97</sup> Here, distinctions are made

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<sup>90</sup> Donna J. Wood and Barbara Gray, "Toward a Comprehensive Theory of Collaboration," *Journal of Applied Behavioral Science* 27(2) (1991): p. 139-162; Anne Marie Thompson and James L. Perry, "Collaboration Processes: Inside the Black Box," *Public Administration Review* (Special Issue) (December 2006): p. 20-32; and Chris Huxham and Siv Vangen, "Ambiguity, Complexity and Dynamics in the Membership of Collaboration," *Human Relations* 53(6) (2000): p. 771-806.

<sup>91</sup> Alnoor Ebrahim, "Institutional Preconditions to Collaboration: Indian Forest and Irrigation Policy in Historical Perspective," *Administration and Society* 36(2) (May 2004): p. 208-242 and John R. Schermerhorn, Jr., "Determinants of Interorganizational Cooperation," *Academy of Management* 18(4) (December 1975): p. 846-856.

<sup>92</sup> Nelson Philips, Thomas B. Lawrence, and Cynthia Hardy, "Inter-Organizational Collaboration and the Dynamics of Institutional Fields," *Journal of Management Studies* 37(1) (January 2000): p. 22-43.

<sup>93</sup> Eva-Maria Kern and Wolfgang Kersten, "Framework for Internet-Supported Inter-Organizational Product Development Collaboration," *Journal of Enterprise Information Management* (20)5 (2007): p. 562-677; Charlotte P. Lee, "Boundary Negotiating Artifacts: Unbinding the Routine of Boundary Objects and Embracing Chaos in Collaborative Work," *Computer Supported Collaborative Work* 16 (2007): p. 307-339.

<sup>94</sup> Xiaowei Luo and Lina Deng, "Do Birds of a Feather Flock Together? The Effects of Partner Similarity on Innovation in Strategic Alliances in Knowledge-Intensive Industries," *Journal of Management Studies* 46(6) (2009): p. 1005-1030;

<sup>95</sup> Kern and Kersten (2007) and Judith S. Olson, et al., "A Theory of Remote Scientific Collaboration," In Gary M. Olson, Ann Zimmerman and Nathan Bos, eds., *Scientific Collaboration on the Internet* (Cambridge: MIT Press, 2008): p. 73-97.

<sup>96</sup> Richard A. Longoria, "Is Inter-Organizational Collaboration Always a Good Thing?," *Journal of Sociology and Social Welfare* 32(3) (September 2005): p. 123-137.

<sup>97</sup> J. Knoben and L.A.G. Oerlemans, "Proximity and Inter-Organizational Collaboration: A Literature Review," *International Journal of Management Review* 8(2) (2006): p. 71-89; and Olson et al. (2008)

among various configurations of cooperative endeavors.<sup>98</sup> Partnerships, consortia, mergers, and federations are distinguished in terms of the level interactions they require from participants and the structure necessary for them to work together.<sup>99</sup> Furthermore, the impact of collaboration on institutional dynamics and structures also requires further attention. These areas are rarely mentioned in the current reunification literature. More detailed connection with inter-institutional collaboration literature could help shed light on the contingencies involved in conducting an inter-organizational virtual reunification project.<sup>100</sup> This is important because successful reunification rests on effective collaboration, clear goals, well-defined purpose and audience, and technical wherewithal to gather, consolidate and represent various pieces of dispersed collections.

Another underexplored implication of virtual reunification is the absence of discussion around how virtual reunification might be situated within longstanding calls for collaboration among members of the LAM community.<sup>101</sup> The topic of convergence of the LAMs has a long history reaching its peak in the last twenty years with the introduction of

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<sup>98</sup> Henry Adobor, "Inter-Firm Collaboration: Configurations and Dynamics," *Competitiveness Review* 16(2) (2006): p. 122-134.

<sup>99</sup> Daniel W. Wang, "A Lexicon of Inter-Institutional Cooperation," *Higher Education* 44 (2002): 153-183.

<sup>100</sup> Cynthia Hardy, Nelson Philips, and Thomas B. Lawrence, "Resources, Knowledge and Influence: The Organizational Effects of Interorganizational Collaboration," *Journal of Management Studies* 40(2) (2003): p. 321-347; Trevor Williams, "Cooperation By Design: Structure and Cooperation in Interorganizational Networks" *Journal of Business Research* 58 (2005): p. 223-331; Wesley Shrum, Joel Genuth, and Ivan Chompalov, *Structures of Scientific Collaboration* (Cambridge: MIT Press, 2007); Thomas B. Lawrence, Cynthia Hardy and Nelson Philips, "Institutional Effects of Interorganizational Collaboration: The Emergence of Proto-Institutions" *Academy of Management Journal* (45)1 (2002): p. 281-290; and Walter W. Powell and Paul J. Dimaggio, eds., *The New Institutionalism in Organizational Analysis* (University of Chicago Press, 1991).

<sup>101</sup> Zorich, Diane M., Gunter Waibel and Ricky Erway, "Beyond the Silos of the LAMs: Collaboration Among Libraries, Archives and Museums" (OCLC, 2008); Nancy Chaffin Hunter, Kathleen Legg and Beth Oehlerts, "Two Librarians, an Archivist, and 13,000 Images: Collaborating to Build a Digital Collection" *Library Quarterly* 80(10) (2010): p. 81-103; Martin R. Kalfatovic, et al., "Smithsonian Team Flickr: A Library, Archives and Museums Collaboration in Web 2.0 Space," *Archival Science* 8 (2008): p. 267-277; and Jennifer Trant, "Emerging Convergence?: Thoughts on Museums, Archives, Libraries, and Professional Training," *Museum Management and Curatorship* 24(4) (December 2009): p. 369-387.

information in the electronic form.<sup>102</sup> For instance, W. Boyd Rayward argues that “the distinctions between all of these apparently different types of institutions eventually will make little sense” in what he calls the “electronification” of many of the materials held by traditional repositories.<sup>103</sup> There has been sustained and growing expectation among various sectors for the LAM institutions to find ways to aggregate overlap and coordinate digitization efforts and meet user needs.<sup>104</sup> The impact of virtual reunification on the continuing convergence of institutional roles and identities remains unexplored.

#### **2.4. VIRTUAL REUNIFICATION: TOWARD AN INTEGRATED MODEL**

In examining the projects and the literature cited above, I identified three approaches for understanding virtual reunification. This section discusses each and concludes by proposing a model that combines all three.

The first framework, the Linear and Goal-Oriented Approach, looks at reunification as a linear process that begins with a dispersed collection and ends with a digitally reunified product. The second framework, the Product and Process Approach, considers virtual reunification as the iterative interaction between process and product. This model considers how preconceived ideas of a final product will likely influence the steps to pursue in order to achieve online reunification. However, it also acknowledges that the same process can also shape the product in profound ways. This approach focuses on the negotiation between two interacting elements, process and product, that mutually shape the outcomes of virtual reunification. The third model, the Stakeholder Approach, identifies the various parties

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<sup>102</sup> Margaret Hedstrom and John Leslie King, “Epistemic Infrastructure in the Rise of the Knowledge Economy,” In Brian Kahin and Dominique Foray, eds., *Advancing Knowledge and the Knowledge Economy* (Cambridge, MA: MIT Press, 2007): p. 113-134.

<sup>103</sup> W. Boyd Rayward, “Electronic Information and the Functional Integration of Libraries, Museums, and Archives,” In *History and Electronic Artefacts* (Oxford: Oxford University Press, 1998): p. 207-225.

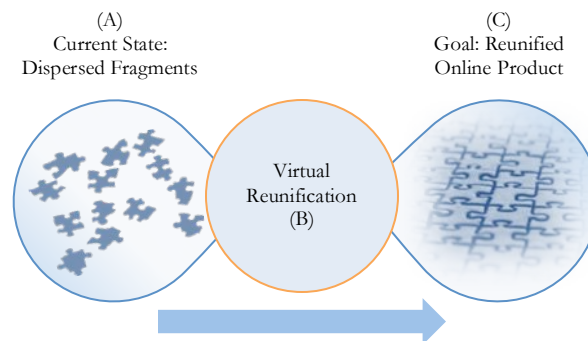
<sup>104</sup> Paul F. Marty, An Introduction to Digital Convergence: Libraries, Archives, and Museums in the Information Age,” *Library Quarterly* 80(1) (January 2010): p. 1-5.



involved in the process of reunification. Virtual reunification involves intra- and inter-institutional negotiations, funding support, multidisciplinary expertise, and user demands. The process might be best seen as a common convergence point for all stakeholder groups.

### 2.4.1. Virtual Reunification: A Linear and Goal-Oriented Approach

Virtual reunification can be modeled as a linear process of accomplishing targets and goals. Figure 2.1 illustrates this approach. The model identifies the main elements involved in accomplishing the ultimate goal of providing complete digital versions of artifacts. The process begins with the identification of collections and ends with the production of complete and comprehensive collections online. In this setup, virtual reunification (B) is seen as the necessary process for scattered collections (A) to become digitally reunified (C).



**Figure 2.1.** Virtual Reunification: A Linear and Goal-Oriented Approach

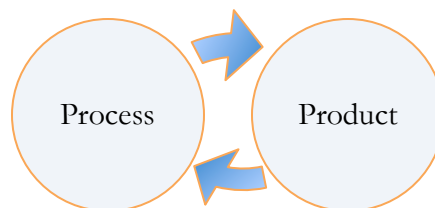
Given its emphasis on the linear movement of accomplishing institutional targets and goals, this approach assumes that the process of reunification follows a simple and straightforward path. The strength of this model is its focus on virtual reunification as the necessary step for achieving consolidation and reunification of scattered or fragmented collections. The model is particularly useful if the aim is to discover the goals and objectives

that motivate institutions to pursue virtual reunification. Furthermore, the approach also seeks to account for the state of the collection prior to reunification and relate this with visions of the final reunified product.

Using this perspective, however, can also be limiting. For instance, the model does not account for the iterative and interactive nature of reunification decision-making. As indicated in the analysis of sample projects and the literature on reunification, the collaborative nature of reunification requires negotiation and coordination among institutions with divergent priorities and strategies. In this regard, capturing how key conflicts and barriers are resolved can provide crucial insight into the reunification decision-making process. Second, it tends to place the entire reunification process into a black box. Thus, the model fails to account for the contingencies and challenges of virtual reunification.

#### **2.4.2. Virtual Reunification: A Process and Product Approach**

A second model for virtual reunification is as both (1) *process* and (2) *product* and the interaction between these two elements. This approach assumes that certain preconceived notions of a final product will likely dictate the steps necessary to accomplish reunification. The illustration below (Figure 2.2) emphasizes the link between procedural steps and rules in the creation of a reunified product.



**Figure 2.2.** Virtual Reunification: A Process and Product Approach

In this model, the products of reunification are shaped by the means of their creation. Thus, both process and product of virtual reunification are in a mutually constitutive relationship. The ongoing efforts to reunite the Cairo *genizah* through the *Penn/Cambridge Genizah Fragment Project* illustrate how virtual reunification can be understood as a product-process relationship. The project presents a web-based image database that scholars can use to locate or identify the individual fragments of the dispersed collection. This online database allows for searches by title, author, language, physical characteristics, subject, and bibliographic history. One functionality enables side-by-side comparison of various digitized fragments. The integration of the digitized fragments and all the functionalities provided on the site are all products of virtual reunification. The product is designed specifically to address the expectations of scholars and owning institutions of having a unified bibliographic control of the dispersed fragments.<sup>105</sup>

Much effort in the *genizah* reunification went towards ensuring that cataloguing and descriptive practices are performed consistently across all participating repositories. Consequently, this required the adoption and development of descriptive protocols, metadata, as well as the uniform use of controlled vocabulary for both physical condition assessment and bibliographic description. The digitization for reunification as well as the production of this website necessitated expertise not only in digitization technology and web interface design, but also bibliographic description and metadata standards and knowledge of Hebrew and Jewish manuscripts. Reunification of the Cairo *genizah* meant producing a web-based image database and this in turn required consideration of descriptive protocols and involvement of expertise from various domains. Because of the expected output, the process coalesced around bibliographic description. The focus on cataloguing and description also

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<sup>105</sup> Heidi G. Lerner and Seth Jerchow, "The Penn/Cambridge Genizah Fragment Project: Issues in Description, Access, and Reunification," *Cataloging & Classification Quarterly* 42(1) (2006): p. 21-39.

dictated which expertise to involve and what services and functionalities to include on the website.<sup>106</sup> Highlighting how the iterative relationship between process and product helps reveal key decisions made and the expertise involved in the reunification of the *genizah*.

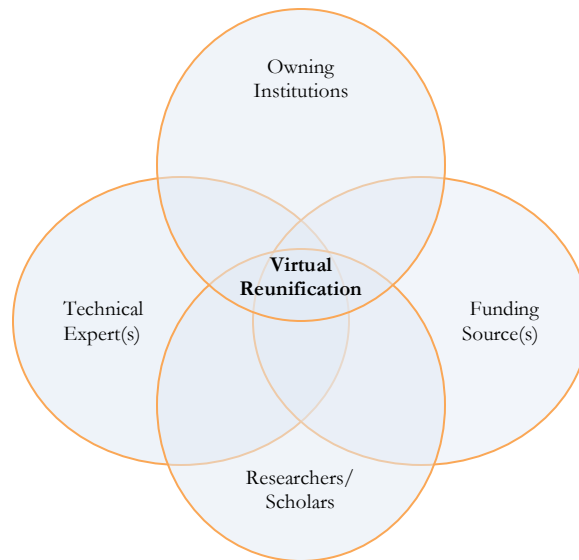
An appreciation of the process-product relationship is important since both processes and outcomes involved in reunification vary. While almost all reunification projects seem to aspire for comprehensiveness and completeness, what a reunified product does, the services it provides, and how it looks depend on a variety of factors as previously indicated. The model is helpful in accounting for the process of creating an online reunified product. However, it leaves out the actors who determine the procedures to pursue, the priorities to emphasize, and the product to create.

#### **2.4.3. Virtual Reunification: Stakeholders Approach**

A third approach to examine virtual reunification is identifying the various stakeholders involved in development, design and implementation. Negotiations and decisions also shape virtual reunification processes and outcomes. In my review of the literature and sample projects, I indicated the importance of leveraging scholarly demands or research requirements with technological capacity on one hand and institutional limitations and expertise on the other. I also noted how funding requirements can dictate reunification outcomes and goals. Figure 2.3 illustrates virtual reunification as a result of the convergence of various groups with overlapping interests: heritage professionals and administrators in owning institutions, sources and providers of funding support, researchers and scholars who access and use the dispersed collection, and experts that provide technical knowhow in the interpretation of content or design of online platforms.

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<sup>106</sup> Lerner and Jerchow (2006)



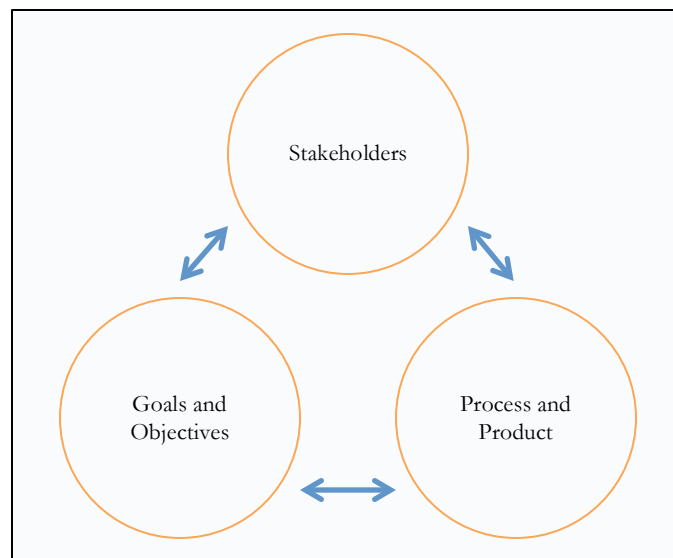
**Figure 2.3.** Virtual Reunification: Stakeholders Approach

The *Rosetti Archive*, for instance, can illustrate the involvement of several stakeholders in a successful virtual reunification project. The project received support from several sources: main sponsorship came from the Institute for Advanced Technology in the Humanities (IATH) at the University of Virginia; partial funding came from the National Endowment for the Humanities and the Andrew W. Mellon Foundation; equipment grants came from IBM Corporation; and research associated with the project was supported by grants from the University of Virginia, the University of Michigan Press, and the J. Paul Getty Trust. From its inception in 1992 to its completion in 2008, the project involved several editors, research assistants, programmers and analysts, and external consultants. While the project gathered items from several institutions and private collections, the reunification of these items did not emanate from any of the owning persons or institutions.

Third party researchers, housed by a university research unit (IATH), facilitated production of the *Rossetti Archive*.

#### 2.4.4. Virtual Reunification: A Consolidated Approach

Each model presented above emphasizes different aspects of virtual reunification: the stakeholders involved, the iterative relationship between process and product, and the goals and objectives that motivate institutions to pursue reunification. In this dissertation, I propose to combine all three approaches in examining the challenges and barriers to virtual reunification. As illustrated in Figure 2.4, the resulting consolidated model goes beyond the integration of all three approaches and situates each approach in dynamic relationship with each other. Taken together, these models represent a more holistic perspective of virtual reunification.



**Figure 2.4.** Virtual Reunification: A Consolidated Approach

## 2.5. CONCLUSION: REQUIREMENTS, CONSIDERATIONS, LIMITATIONS

In the last few years, much of the discourse about the relationship between cultural heritage and digital technology has been descriptive and introspective, focusing on successful projects and technical considerations. An IMLS study on digitization proposes several factors to consider in pursuing digitization projects.<sup>107</sup> From a survey of digitization literature, Laurie Lopatin identifies project management, funding, selection and identification of materials for digitization, legal concerns, metadata elements and creation, interoperability, and preservation as some of the most critical components of digitization.<sup>108</sup>

Fewer sources address virtual reunification specifically, and those that do are often celebratory. Austenfeld and many others underscore the importance of institutional cooperation, development of procedural protocols, adherence to established technical standards, funding support, scholarly and research demands, and involvement of various experts as key ingredients to successful reunification projects.<sup>109</sup> These works are mostly in the form of reports detailing exemplars of successful digitization and reunification projects. They therefore tend to reflect on the key elements that led to certain projects' successes. These sources also enumerate the technical decisions made and the procedures that repositories followed, for instance the rules regarding format and transcription, the web features utilized to represent and structure the collections online, or the scanning technology used. Many of these are self-reported reflections after the fact.

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<sup>107</sup> Institute for Museum and Library Services, *Status of Technology and Digitization in the Nation's Museums and Libraries* (Washington, D.C.: IMLS, January 2006).

<sup>108</sup> Laurie Lopatin, "Library Digitization Projects, Issues and Guidelines: A Survey of Literature," *Library Hi Tech* 24(2) (2006): p. 273-289.

<sup>109</sup> Austenfeld (2010); Jones (2006); Zeki Mustafa Dogan and Alfred Scharsky, "Virtual Reunification of the Earliest Christian Bible: Digitisation, Transcription, Translation and Physical Description of the Codex Sinaiticus," In B. Christensen-Dalsgaard, et al., eds., *EDCL 2008: Proceedings of the 12<sup>th</sup> European Conference on Research and Advanced Technology for Digital Libraries* (Denmark, 2008): p. 221-226; Jessi Stumpf, et al. (2003); Ekkehard Henschke, "Digitizing the Hand Painted Bible: The Codex Sinaiticus, Its History and Modern Presentation," *Libri* 57 (2007): p. 45-51; Elisabeth Eide, "Dispersed Collections Virtually Rejoined?" *World Library and Information Congress: 76<sup>th</sup> IFLA General Conference and Assembly* (Gothenburg, Sweden, August 10-15, 2010) (Available at <http://www.ifla.org/files/hq/papers/ifla76/99-eide-en.pdf>).

Missing in this literature is a nuanced account of the decision-making process and the non-technical factors institutions had taken into consideration as they decide to embark on a virtual reunification project. This study aims to fill this gap by producing a more nuanced characterization of the determinants of virtual reunification by considering and examining two sources: first, those emanating from scholarly papers and project reports; and second, from themes that emerge within the specific context of ten institutions on the verge of reunifying the dispersed ethnographic images of Dean C. Worcester.

Challenges and barriers to using digitization as a strategy to reunify dispersed collections online have not been closely examined. Doing so takes a step towards fuller appreciation of how institutions reach consensus, negotiate internal digitization programs and priorities in the context of a larger inter-institutional arena, and how a cooperative project can impact a repository's policies, procedures, and attitudes towards a set of collection.<sup>110</sup> A fuller characterization of the preconditions of virtual reunification must take into account not only those cited in reports and publications, but must also consider how those factors previously discussed may play out in context.

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<sup>110</sup> Paul Conway, "Best Practices for Digitizing Photographs: A Network Analysis of Influences," *Archiving 2008 Proceedings* (Bern, Switzerland): p. 94-102.



## **CHAPTER 3**

### **RESEARCH DESIGN**

In the previous chapter, I examined the various elements that constitute virtual reunification gleaned from sample projects, published papers, and project reports. I also presented some of the considerations as well as factors that have been attributed to the success of online reunification. The literature review concluded with the observation that a fuller understanding of virtual reunification is still missing.

This chapter discusses the research design and the qualitative methods I adopted in examining the case of Dean C. Worcester's dispersed ethnographic images and the ten heritage institutions that keep them. I will discuss the characteristics that make the Worcester collection a compelling case that sheds light on the barriers to reunification. I will also describe the procedures implemented in data gathering, interpretation, and analysis.

A number of factors lend interest to my investigation into the virtual reunification of the Worcester photographs. In summary, the dispersed Worcester images and the institutions that house them present a good case because of the visual and ethnographic nature of the collection, the various levels and stages of digitization, diversity of formats, the potential collaboration among libraries, archives and museums, and a definable group of stakeholders. The nature and context of their dispersion, content (ethnographic) and format (prints, negatives, copy negatives, etc.) are among the factors that make the collection an interesting case and, in many ways, unique compared to previous examples of reunification efforts.

### 3.1. A CASE STUDY

This dissertation examines a suitable candidate for virtual reunification—the dispersed ethnographic photographs of Worcester—and proceeds by identifying the major challenges that can potentially impede its implementation. In doing so, I outline the barriers to online reunification that are drawn from the context of a specific case. The project takes the Dean C. Worcester photographs as its central case in order to identify barriers to reunification, as well as to account for “why” and “how” these barriers pose challenges to projects given current institutional conditions. This dissertation encompasses case study as a method in all aspects, including research design, data collection techniques, and approaches to analysis of data. This research utilizes the case study as a framework to identify the scope of the study and its process of inquiry. This study follows two of the defining aspects of the case study method delineated by Robert K. Yin:

(1) A case study is an empirical inquiry that

- investigates a contemporary phenomenon in depth and within its real-life context, especially when
- the boundaries between phenomenon and context are not clearly evident.

(2) The case inquiry

- copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result
- relies on multiple sources of evidence, with data needing to converge in a triangulation fashion, and as another result
- benefits from the prior development of theoretical propositions to guide data collections and analysis.<sup>1</sup>

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<sup>1</sup> Robert K. Yin, *Case Study Research: Design and Methods* (Los Angeles: Sage, 2009): p. 18.

The case study approach to research facilitates the exploration of a problem examined in detailed context. The case study method best addresses questions that require understanding complex social phenomena in their technical and contextual detail.<sup>2</sup> This dissertation employs two data gathering methods, interviews and archival research (further detailed in section 3.3). Chapters 4 and 5 present the results from a variety of data sources and their implications are discussed in chapter 6. The following sections outline the research design, the implementation of two data gathering methods, as well as the analysis and triangulation of the data in relation to published literature on virtual reunification.

### **3.1.1. Defining the Case**

Every case study must delineate the “bounded system” or define the case under scrutiny.<sup>3</sup> In other words the central task is to answer the categorical question: “What is this case a case of?”<sup>4</sup> This project identifies and explains the barriers to virtual reunification as strategy to gather together the dispersed Worcester images that are currently held in several repositories. The focus of the dissertation is on one shared collection that is a suitable candidate for virtual reunification and characterizes the elements that make it difficult to do so. In this sense, this research project is what Robert E. Stake classifies as an “intrinsic case study” because of its focus on a single case to gather insight into the complexity of online reunification and to generate the kinds of questions to consider in pre-reunification decision-making.<sup>5</sup> While it is possible to generate theory from a single case,<sup>6</sup> in this dissertation, I provide a nuanced illustration of the complexity of the barriers to virtual reunification.

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<sup>2</sup> Yin (2009).

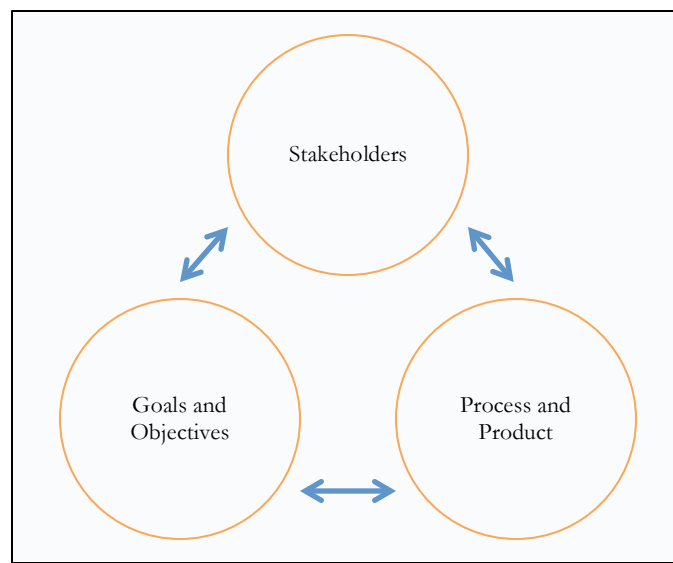
<sup>3</sup> John W. Creswell, *Qualitative Inquiry and Research Design: Choosing Among Five Approaches* (Sage, 2007): p. 73.

<sup>4</sup> Bent Flyvbjerg, “Five Misunderstandings About Case Study Research,” *Qualitative Inquiry* 12(2) (April 2006): p. 238.

<sup>5</sup> Robert E. Stake, *The Art of Case Research* (California: Sage Publications, 1995).

A case is “a phenomenon of some sort occurring in a bounded context.”<sup>7</sup> The case is “in effect the unit of analysis.”<sup>8</sup> For Yin, the case study approach is useful when the research problem attempts to explain why certain elements, issues or concerns exist in a given situation where the researcher cannot control the environment and behavior of study participants. It is best used when the research attempts to unearth contextual conditions and when researchers attempt to understand the relationship between context and phenomenon.<sup>9</sup>

### 3.1.2. Conceptual Framework



**Figure 3.1.** Virtual Reunification: A Consolidated Approach (reproduces Figure 2.4)

This study developed a framework for a Consolidated Approach for examining virtual reunification, as laid out in section 2.4 of the previous chapter (see Figure 2.4, reproduced as Figure 3.1). The model combines three distinct, but not mutually exclusive,

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<sup>6</sup> See Kathleen M. Eisenhardt, “Building Theories from Case Study Research,” in A. Michael Huberman and Matthew B. Miles, eds., *The Qualitative Researcher’s Companion* (Sage, 2002): p. 5-35 and Flyvbjerg (2006).

<sup>7</sup> Matthew B. Miles and A. Michael Huberman, *Qualitative Data Analysis* (Californian: Sage Publication, 1994): p. 25.

<sup>8</sup> Miles and Huberman (2005), p. 25.

<sup>9</sup> Yin (2009)

approaches for understanding virtual reunification. These are: Stakeholders Approach (Figure 2.3), Process and Product Approach (Figure 2.2), and Linear and Goal-Oriented Approach (Figure 2.1). The framework accounts for the various processes, motivations, products and actors behind virtual reunification. It also demarcates the essential elements, as identified from extant literature and sample projects surveyed in chapter 2, for assessing online reunification. Figure 3.1 identifies the main components of virtual reunification and their relationships.<sup>10</sup>

I used this framework to guide the recruitment of interview participants and the design of interview protocols. In my analysis of both archival and interview data, I utilized this framework to compare and organize the information and responses among and between stakeholder groups in the study; for example, in triangulating interview responses from heritage professionals and administrators in ten owning repositories as well as comparing responses from distinct stakeholder groups, such as funders and heritage workers. The discussion below further explains the operationalization of each element in the Consolidated Approach:

### *Stakeholders*

The focus on “stakeholders” helps identify the major groups likely to be engaged in virtual reunification planning. This dissertation involved three major stakeholder groups with interests in the Worcester photographs: heritage professionals and administrators, funding institutions, and researchers who were the targets of my interviews. During interviews, I asked these respondents to identify potential audiences and to describe how virtual

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<sup>10</sup> Miles and Huberman (2005), p. 25.

reunification might serve various user groups. Section 4.4 of chapter 4 discusses the various stakeholders beyond the three groups initially identified.

### *Process and Product Dynamic*

The second element considered in assessing virtual reunification is the dynamic relationship between process and product. This element draws attention to a consistent theme in the literature in which I noticed virtual reunification projects are assessed not only on the resulting outcomes and digital collections, but also processual steps, including administrative outcomes, planning stages, priorities, collection control, and decision making. As consistently noted in the study's findings, this is an area in which significant "institutional work" is (or can be) accomplished in gathering comprehensive and authoritative data regarding the Worcester images. In interviews, I queried respondents about what processes would be required to attain desired products determined in part by project goals and planning.

### *Goals and Objectives*

From the literature on virtual reunification examined in chapter 2, I observed that reunification project outcomes take shape in a dynamic relationship with what key decision-makers identify as the goals of gathering and consolidating various parts of a dispersed collection. By focusing on "goals and objectives," this study aims to account for how initial goals for a reunification project interact with pre-reunification planning and decision-making. In the case of the Worcester images, I asked respondents what goals they would like to meet in consolidating the Worcester collection in a unified, online project.

Guided by the proposed consolidated approach, data gathering took into account the goals and objectives as well as the potential process and product of reunifying the Worcester

photographs. Section 3.2 further discusses the recruitment of respondents and the details of their background. In Chapters 4 and 5, the sense of purpose, process and product of virtual reunification are discussed considerably.

### 3.2. WORCESTER'S ETHNOGRAPHIC PHOTOGRAPHS<sup>11</sup>

Dean C. Worcester (1866–1924), pictured in Figure 3.2, was an American zoologist and naturalist who studied and later taught at the University of Michigan. He also served as curator of the University Museum. His first two visits to the Philippines were associated with his training as a zoologist. The first was in 1887 to 1888 as an undergraduate student under the direction of University of Michigan professor of zoology, Joseph B. Steere. His second visit, from 1890 to 1893, was as head of another expedition to gather zoological specimens. With growing interest in the United States regarding Spain's governing of Cuba and the Philippines, Worcester seized on the American fascination with Spanish colonialism in the Philippines as an opportunity to publish a travel book, *The Philippine Islands and Their People* (1899). The book incorporated several photographic images that Worcester had taken during his zoological studies in the islands. Upon the U.S. annexation of the Philippines in 1898, Worcester had already established himself as the foremost authority of its history, geography, and natural resources.

Worcester played a significant role in the American annexation and the formation of the colonial administration of the Philippines. He was member of the influential Philippine

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<sup>11</sup> Any effort aimed at understanding the various Worcester photographic collections must start by looking at the person behind their creation and dispersion. Historian Rodney J. Sullivan's biography offers the most authoritative and extensive account of the life and colonial career of Dean C. Worcester; see Rodney J. Sullivan, *Exemplar of Americanism: The Philippine Career of Dean C. Worcester* (University of Michigan Press, 1991). Also of note is: Karl L. Hutterer, "Dean C. Worcester and Philippine Anthropology," *Philippine Quarterly of Culture and Society* 6(3) (September 1978): p. 125-156. Hutterer's essay discusses Worcester's seminal contributions to American anthropological study in the Philippines and relationship to subsequent researchers. Given the comprehensive nature of these sources, the following discussion of Worcester's colonial career and anthropological work in the Philippines will be brief.

Commission, a committee tasked by President William McKinley to investigate and make recommendations on the extent of the U.S. involvement in the former Spanish colony in the Pacific. Worcester oversaw the compilation of the first Commission's final report that eventually recommended and laid out the American annexation of the archipelago. In 1901, Worcester was appointed Secretary of the Interior of the Philippine Islands, a position he held until his retirement from government in 1913. Worcester remained in the Philippines as a businessman until his death in Manila in 1924.



**Figure 3.2.** Worcester beside a Negrito, ca. 1902. (Citation: University of Michigan Museum of Anthropology)

### **3.2.1. Complicated Context, Content, and Format**

The complicated historical context of the Worcester images, their anthropological content, and diversity of their format are challenges facing heritage professionals and administrators responsible for Worcester images in repositories included in this study. Chapters 4 and 5 of this dissertation touch upon various sensitivity issues that concern curators, archivists, collections managers, and librarians.



The Worcester images were created and circulated at the height of U.S. colonial administration of the Philippines. As previously noted, Worcester assumed various roles as a colonial administrator of the archipelago between 1899 and 1913.<sup>12</sup> But his colonial career was punctuated by his concern for the plight of indigenous groups of the Philippines and his conviction that indigenous Filipinos required greater American tutelage.<sup>13</sup> He broadly divided peoples of the Philippines into Christian and non-Christian groups. This categorization of peoples and regions of the Philippines remains prevalent today. He categorized Christian groups into civilized and semi-civilized subgroups, while he considered non-Christians as whole to be savages in need of education and American benevolence. Despite granting Christian Filipinos credit for “civilization,” Worcester doubted the capacity of the Filipino elite to govern the indigenous population and believed that this responsibility rightfully and morally fell to the United States. He saw Christian Filipinos as posing the greatest threat to the welfare of indigenous tribes, and his lifelong passion was to convince the American authorities of the necessity to intervene on behalf of non-Christian Filipinos. Driven by this paternalistic impulse, he created the Bureau of Non-Christian Tribes. Through this Bureau, and with other government photographers, he carried out a series of ethnological survey expeditions to understand indigenous habitat, life-ways, natural resource use, and the possible impact of the American pacification attempts to civilize and educate various Philippine tribal groups.<sup>14</sup>

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<sup>12</sup> Sullivan (1991)

<sup>13</sup> Lars Fogelin, “Dean C. Worcester, Race and the Philippines,” In Chapter 3, *Imperial Imaginings: The Dean C. Worcester Photographic Collection of the Philippines, 1890-1913*, edited and compiled by Carla M. Sinopoli and Lars Fogelin [CD-ROM] (Museum of Anthropology, University of Michigan, Ann Arbor, 1998).

<sup>14</sup> Carla M. Sinopoli, “Dean Worcester and the Philippines,” In Chapter 1, *Imperial Imaginings: The Dean C. Worcester Photographic Collection of the Philippines, 1890-1913*, edited and compiled by Carla M. Sinopoli and Lars Fogelin [CD-ROM] (Museum of Anthropology, University of Michigan, Ann Arbor, 1998).

The photographs generated from the surveys are now considered to be the most comprehensive set of historical images of indigenous peoples in the Philippines.<sup>15</sup> These visual artifacts have shaped contemporary notions of indigenous groupings and identities, land distribution as well as Philippine colonial history in profound ways.<sup>16</sup> The photographs themselves have been objects of controversy and study in terms of how they constructed and continue to construct biased and racist views of Filipinos.<sup>17</sup>

The series of photographs in Figure 3.3 is perhaps the most iconic of all Worcester's photos. Over the years, the sequence has come to be known within Philippine studies circles as the "Igorot Sequence." Published and re-published in several articles, it was often accompanied by a caption depicting the "evolution" of a "savage" Igorot warrior into a "civilized" and disciplined constabulary officer.<sup>18</sup>



**Figure 3.3.** The "Igorot Sequence" (From the University of Michigan Museum of Anthropology)

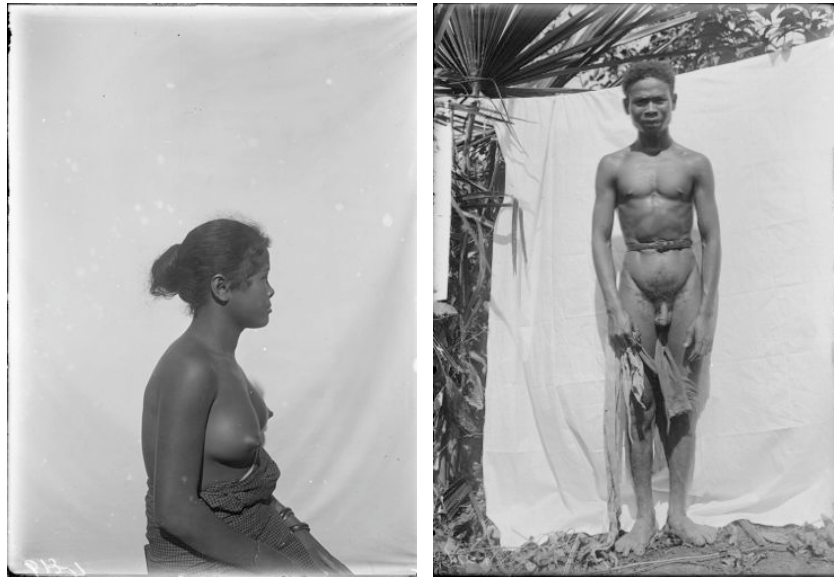
<sup>15</sup> M. Bianet Castellanos, "Photography and the Philippines" In Chapter 2, *Imperial Imaginings: The Dean C. Worcester Photographic Collection of the Philippines, 1890-1913*, edited and compiled by Carla M. Sinopoli and Lars Fogelin [CD-ROM] (Museum of Anthropology, University of Michigan, Ann Arbor, 1998).

<sup>16</sup> Karl L. Hutterer, "Dean C. Worcester and Philippine Anthropology," *Philippine Quarterly of Culture and Society* 6(3) (September 1978): p. 125-156.

<sup>17</sup> Analyn Salvador-Amores, "Breaking Barriers of Ethnocentrism: Re-examining Igorot Representation Through Material Culture and Visual Research Methods," *The Cordillera Review* 1(1) (March 2009): p. 47-79.

<sup>18</sup> Mark Rice, "His Name Was Don Francisco Muro: Reconstructing an Image of American Imperialism," *American Quarterly* 62(1) (2010): p. 49-76.

Worcester's ethnographic photographs contain nude subjects, such as the ones shown in Figure 3.4., that can potentially raise representational questions. He collected ethnographic information in a period when it was not routine practice to obtain permissions from research subjects. It is not known whether or not the people in the images gave permission to have their photograph taken and if they were informed or understood Worcester's intention. Some sets of images feature the same people with and without clothing in various poses, which appear to go beyond the anthropometric convention that predominate in the images of indigenous people. Moreover, some of the poses of women appear to mimic erotic photography of the period or imitate classical odalisque paintings.



**Figure 3.4.** Examples of nudity in Worcester's photos (From the University of Michigan Museum of Anthropology)

The Worcester images can be appreciated as important artifacts of early anthropology. In fact, there is an argument to be made about how Worcester merely adhered to the prevailing scientific conventions of his time. It is nevertheless important to note that

his images of indigenous Philippines cannot be divorced from the colonial circumstances that afforded their making.

Aside from their complicated historical and colonial context, two other factors contribute to the complexity of the Worcester images. The first centers on the subject and content of the photographs, i.e., the depiction of indigenous communities. The other pertains to the material component of photographic collections, as a reproducible medium that can come in diverse formats. Section 5.1.4 *Material Dispersion: Seeing the Images in Their Various Formats* provides a more extensive discussion on the various formats in which the Worcester images appear. Figure 4.2 and Table 5.1 also illustrate this variety of media.

In making decisions about the Worcester images, heritage professionals and administrators not only consider the complications presented by the historical conditions in which the Worcester images were created, but they also ponder the sensitivity of their content and the diversity of their format. Curators, archivists, collections managers and librarians responsible for the Worcester images face representational and ethical dilemmas in making decisions about digitization and reunification. This dissertation considers these concerns at the outset in order to understand how these issues will affect pre-reunification decision-making in the Worcester collection in order to avoid repeating colonial practices and also to include the voices of sources communities.

Contemporary anthropologists and historians often use Worcester's images to draw interpretations about the subjects and content matter depicted. In addition, many use these images more generally as a springboard to discuss colonial representational practices and knowledge production.<sup>19</sup> However, no critical attention is given to the fact that the

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<sup>19</sup> Melissa Banta and Curtis M. Hinsley, *From Site to Sight: Anthropology, Photography, and the Power of Imagery* (Cambridge, Mass.: Peabody Museum Press, 1986); Eric Breitbart, *A World on Display: Photographs from the St. Louis World's Fair, 1904* (Albuquerque: University of New Mexico Press, 1997); Rice (2010); Julie A. Tuason,

Worcester images, though understood as related, are dispersed among at least ten institutions rather than existing as a unified collection in one repository. The impact of this situation on the interpretation of their content is never discussed. Curatorial decisions made about the images as collections may shape the narratives and representations of indigenous history and culture, perhaps even into the present. This research does not enter into the details of the subject and content of the Worcester images, it captures the attitudes of heritage professionals in charge of the photographs as well as other stakeholders in light of how they decide to digitize and represent the Worcester images online.

### **3.2.2. Owners All: The Worcester Images In Ten Institutions**

This project investigated the extent, nature, and organization of fragments of the Worcester images in ten institutions.<sup>20</sup> I identified these ten institutions through published accounts, finding aids and referrals from heritage professionals and researchers. Three of the sites are located at the University of Michigan campus in Ann Arbor: the Museum of Anthropology, the Bentley Historical Library and the Special Collections Library. Two are in Chicago: the Newberry Library and the Field Museum of Natural History. The Smithsonian Institution's National Anthropological Archives (which is under the Department of Anthropology of the National Museum of Natural History) in Suitland, Maryland holds a subset of images. Another site is the Peabody Museum of Archaeology and Ethnology at Harvard University in Cambridge, Massachusetts. A subset is also found at the Rautenstrauch-Joest Museum, an anthropological museum in Cologne, Germany. The last

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"The Ideology of Empire in National Geographic Magazine's Coverage of the Philippines, 1898–1908," *The Geographical Review* 89 (1) (1999): p. 34-53; and Benito M. Vergara, *Displaying Filipinos: Photography and Colonialism in Early Twentieth-Century Philippines* (Manila: University of the Philippines Press, 1995).

<sup>20</sup> Although the exact number of repositories that have the Worcester images in their collection is still unknown.

institution in the study is the University of Pennsylvania Museum of Archaeology and Anthropology in Philadelphia, Pennsylvania.

These institutions vary greatly in terms of the overall nature of their main collections, their practices of collecting, and the way they facilitate access to their holdings. They also differ in terms of institutional placement. The Newberry Library is an independent cultural institution that focuses on rare books, maps, and manuscripts. The Special Collections Library at the University of Michigan holds similar type of collections and it exists as a unit under the University Library. While the Field Museum, the University of Pennsylvania Museum of Archaeology and Anthropology, and the American Museum of Natural History (AMNH) all specialize in natural history collections, they differ in terms of their institutional placement. The Field Museum is a private institution, the University of Pennsylvania Museum of Archaeology and Anthropology is under a private university, and, finally, AMNH is a private organization.

The University of Michigan Museum of Anthropology, the Rautenstrauch-Joest Museum, and Harvard's Peabody Museum of Archaeology and Ethnology primarily deal with anthropological and archaeological artifacts. University of Michigan Museum of Anthropology is a research and collection museum (which primarily means that its main thrust is not public exhibition, but collecting for academic research) under the School of Literature Science and the Arts. The Rautenstrauch-Joest Museum is a municipal museum under the auspices of the City of Cologne. The Peabody Museum of Archaeology and Ethnology operates under a private university.

The National Anthropological Archives (NAA) and the Bentley Historical Library are archival repositories. NAA is a unit under the Smithsonian Institution, a U.S. federal

agency. The Bentley Historical Library functions under the University of Michigan, a state university.

At this point, it is important to emphasize that what I discuss here are Worcester’s photographic images. His papers and manuscripts are held in three institutions: The University of Michigan Bentley Historical Library (records relating to Worcester’s administrative positions in the Philippine Islands), Thetford Historical Library in Worcester’s hometown, Thetford, Vermont (Worcester’s personal papers and correspondence relating to his family), and the University of Michigan Special Collections Library (mainly Worcester’s personal collection of books and manuscripts about the Philippines).

An overview of the institutions is offered in Table 3.1. A more detailed description of each follows.

**Table 3.1.** Research sites, including their collections, types and locations

<b>NO.</b>	<b>INSTITUTION</b>	<b>COLLECTION</b>	<b>TYPE</b>	<b>LOCATION</b>
<b>1</b>	American Museum of Natural History	Natural History Museum	Private	New York, NY
<b>2</b>	Field Museum of Natural History	Natural History Museum	Private	Chicago, IL
<b>3</b>	National Anthropological Archives	Archives	Public	Suitland, MD
<b>4</b>	Newberry Library	Special Collections Library	Private	Chicago, IL
<b>5</b>	Peabody Museum of Archaeology and Ethnology	Anthropology and Archaeology Museum	University (Private)	Cambridge, MA
<b>6</b>	Rautenstrauch-Joest Museum	Anthropology and Archaeology Museum	Public	Cologne, Germany
<b>7</b>	U. Michigan Bentley Historical Library	Archives	University (Public)	Ann Arbor, MI
<b>8</b>	U. Michigan Museum of Anthropology	Anthropology Museum	University (Public)	Ann Arbor, MI
<b>9</b>	U. Michigan Special Collections Library	Special Collections Library	University (Public)	Ann Arbor, MI
<b>10</b>	U. Pennsylvania Museum of Archaeology and Anthropology	Anthropology and Archaeology Museum	University (Private)	Philadelphia, PA

### *1. Newberry Library, Chicago, IL*

The Worcester images at the Newberry Library are comprised of about 5,000 photographs accompanied by a 5-volume typewritten index provided by Worcester himself. The photographs are known today as the “Ayer Collection of Philippine Photographs.” These images carry that name due to their provenance in the massive corpora of manuscripts donated to the library by Edward E. Ayer (1841–1927), a business magnate and an avid collector of Native American artifacts and manuscripts.<sup>21</sup> Ayer collected numerous manuscripts on indigenous Americans that included tribes from Central America. Ayer’s interest in the Philippines started when the U.S. acquired the Islands as a result of a treaty that ended the Spanish-American War in 1898. The annexation of the Philippines in December 1898 presented an opportunity for Ayer to expand his collection to include the indigenous inhabitants of the new territory. Having served as a charter trustee of the Newberry Library upon its establishment in 1892, Ayer gradually donated his collections of books, maps, photographs, and manuscripts to the Library from 1897 to 1911. It is still unknown exactly when Ayer acquired the Worcester images and when the photographs actually became part of the library collection. His published biography mentions that Ayer visited the Philippines and met Worcester. In addition, biography claims that Worcester sold Ayer around 8,000 prints, plus accompanying indexes for a sum of four thousand dollars.<sup>22</sup> None of these prints and indexes have been microfilmed or digitized. The Worcester photographs at this institution can be accessed on site at the library’s Department of Special Collections Services.

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<sup>21</sup> See Frank C. Lockwood, *The Life of Edward E. Ayer* (Chicago: A. C. McClurg & Co., 1929) and Carolyn Kastner, “Collecting Mr. Ayer’s Narrative,” In Leah Dilworth, ed., *Acts of Possession: Collecting in America* (New Brunswick: Rutgers, 2003): p. 138-162.

<sup>22</sup> From my own counting of the images, however, I found that the prints at the Newberry only totals 5,340. I was unable to find any explanation for the discrepancy.



## *2. Field Museum of Natural History, Chicago, IL*

The Worcester images at the Field museum were copy-negatives of selected prints from the Newberry Library. It is unclear when the copy-negatives were created. A widely accepted story is that when private collector and philanthropist Edward E. Ayer became President of the Field Museum, he ordered to have the images at Newberry copied so that the Museum would have its own collection. From these copy-negatives, the museum also produced several prints that were consequently bound in scrapbooks. The prints, however, have been intermixed with other Philippine photos taken at the St. Louis World's Fair (or the Louisiana Purchase Exposition) of 1904. The exact number of images kept in this museum is still unknown; but there are approximately 4,000 negatives and prints in the collection. Not all images have been digitized, and those that have been scanned are in low resolution. The negatives are currently under the responsibility of a photo archivist who reports to the Museum Library. The prints, however, are under the care of the collections manager of the museum's Department of Anthropology. The Curator of Pacific Anthropology is the person ultimately responsible for both the negatives and prints, thus all digitization projects involving the Worcester images require permission from this curator.

## *3. University of Michigan Museum of Anthropology, Ann Arbor, MI*

The glass negatives at the University of Michigan's Museum of Anthropology were first offered for sale to the University in the sum of \$5,000 by Frederick Worcester, son of Dean. When the University's Board of Regents (in its December 6, 1926 meeting)<sup>23</sup> decided not to accept the offer of purchase, Frederick placed the negatives on long-term deposit at the American Museum of Natural History (AMNH) in New York. By the late 1950's Frederick Worcester and his sister, Alice W. Day, began adding more manuscripts to the

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<sup>23</sup> The University of Michigan Board of Regents, *Proceedings of the Board of Regents*, December 1926, p. 116.

existing Worcester collection at the University of Michigan. Alice Day indicated in a letter to Lewis G. Vander Velde, director of the Michigan Historical Collections, that Frederick had plans to send her “father’s collection of pictures and negatives” to the Library.<sup>24</sup> The negatives left AMNH in February 1957, and by April of the same year, the negatives arrived at Michigan. It is still unknown exactly why the Michigan Historical Collections decided to pass the negatives on to the Anthropology Museum, when the transfer to the Museum took place, and the administrative details of the transfer.

Following their arrival at the University, the negatives went through several stages of handling and processing. In 1967, a project to catalog and produce an inventory of the negatives was initiated. This produced a thick volume of descriptions transcribed from the original envelopes that held the negatives. In 1977, the Museum received a grant from the National Endowment for the Humanities (NEH) to preserve the negatives and to support further scholarly research on the history of the photographs. When the project closed in June 1980, positive prints had been produced and the accompanying descriptions of the glass negatives had been transcribed, amended and elaborated. Another significant milestone in the history of the negatives at Michigan was the production in 1998 of the CD-ROM, *Imperial Imaginings: The Dean C. Worcester Photographic Collection of the Philippines, 1890–1913*, which showcased selected images from the Museum of Anthropology’s collection. All 4,775 glass negatives and around 500 lantern slides derived from these negatives have been digitized. The Worcester images in this museum are under the direct responsibility of the Curator of Asian Archaeology. One collections manager provides support and advice on the collection. The collections manager reports directly to the Museum director and works closely with all curators of the Museum.

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<sup>24</sup> Alice Day to Lewis G. Vander Velde, January 2, 1957, Accession Files, Bentley Historical Library, University of Michigan.

#### *4. University of Michigan Special Collections Library, Ann Arbor, MI*

The prints at this library came directly as a donation from Worcester himself. In 1914, Worcester donated a sizeable portion of papers he accumulated while serving his colonial posts in the Philippines. This donation included around 800 prints in bound scrapbooks. In his letter to University Librarian Theo W. Koch, Worcester describes the albums as containing photos taken while serving in the Philippine Commission.<sup>25</sup> The prints have been digitized as part of the online resource made available in 2001, *The United States and Its Territories: Age of Imperialism, 1870–1925*.<sup>26</sup> The prints in this library are under the auspices of a curator who works closely with the director of the Special Collections Library.

#### *5. University of Michigan Bentley Historical Library, Ann Arbor, MI*

The Bentley Historical Library holds an extensive collection of Worcester's papers and manuscripts. The images in this library came in the late 1950's when Dean's children, Alice W. Day and Frederick Worcester donated the remaining papers of their late father. The photographs at the Bentley Library were copies of the images that appeared in Worcester's book, *The Philippines, Past and Present* (New York: Macmillan, 1914).<sup>27</sup> This book came out the year after Worcester resigned from his colonial post. There are approximately 150 photographs at the Bentley Library and they are not catalog at the item level. The images are not digitized, following the Library's general policy of digitizing upon demand. The head of reference services is the primary personnel to contact on matters related to the images. While all digitization projects require approval from the director of the library, the head of

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<sup>25</sup> Dean C. Worcester to Theo W. Koch, 28 May 1915, Library (University of Michigan) Records, Bentley Historical Library, University of Michigan.

<sup>26</sup> Available at <http://quod.lib.umich.edu/p/philamer/> (Accessed September 29, 2012)

<sup>27</sup> Finding Aid, Dean C. Worcester Papers, Bentley Historical Library, University of Michigan (Available <http://quod.lib.umich.edu/b/bhlead/umich-bhl-86354?rgn=main;view=text>, Accessed October 24, 2012).

reference will most likely be consulted on key decision matters, including purpose and audience, timeframe, coordination and processing, and personnel support.

#### *6. National Anthropological Archives, Suitland, MD*

The photographs at the National Anthropological Archives (NAA) of the Smithsonian came directly from Worcester himself as a donation. According to its accession file, Worcester's "collection of 279 photographs of the Native Filipinos" were received by the museum on October 4, 1902.<sup>28</sup> In his letter of donation to the Museum, Worcester included a typewritten list that described every image.<sup>29</sup> Scientists at the U.S. National Museum, later renamed as the National Museum of Natural History (NMNH), subsequently divided up the images between its major divisions, the Division of Physical Anthropology and the Division of Ethnology. When NMNH established the NAA, all the images were consequently transferred to this new unit in Suitland, Maryland. The images, however, remain divided up to this day. Some of the prints have been digitized, but in low resolution. The photo archivist of NAA assumes responsibility over the prints.

#### *7. American Museum of Natural History, New York, NY*

In 1926, Frederick Worcester, placed his father's negatives on long-term deposit to the museum. In 1957, the museum transferred the negatives to the University Michigan, as per Frederick's instruction. The museum currently has a two-volume scrapbook of prints, with accompanying typewritten captions describing the photos. The images in these scrapbooks are from a set of slides provided by Worcester and subsequently used by the

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<sup>28</sup> Accession Record, National Anthropological Archives, Smithsonian Institution.

<sup>29</sup> Dean C. Worcester to W.H. Holmes, June 18, 1902, US National Museum, Department of Anthropology, Manuscript Pamphlet File Box 71-A #767, National Anthropological Archives, Smithsonian Institution.

museum for public educational purposes.<sup>30</sup> Images that appeared in the slides and their accompanying descriptions were chosen and prepared by Worcester himself. There are also a number of individual prints, presumably copied from the glass negatives that are now at Michigan's Museum of Anthropology. The prints found in this museum have not been digitized. The images are under the responsibility of the museum archivist and head of the library special collections of the Museum's Research Library.

#### *8. Peabody Museum of Archaeology and Ethnology, Cambridge, MA*

In 1912, Cameron Forbes, Governor-General of the Philippines from 1908 to 1913, donated his personal Philippine ethnographic collection to the museum. The Worcester images at the Peabody are accessioned, labeled and attributed to Forbes. The museum has a total of 5,175 prints, with the original accompanying two-volume index supplied by Worcester himself. The content of this index is similar to the ones at the Newberry. The museum is currently planning to have the images digitized. The index has already been manually transcribed into digital format. A senior archivist who specializes in photographic materials is directly responsible for the collection.

#### *9. Rautenstrauch-Joest Museum, Cologne, Germany*

Georg Küppers-Loosen was a German collector of ethnographic artifacts. He visited the Philippines in 1906, and there he met Dean Worcester. Küppers-Loosen purchased over 3,700 prints directly from Worcester that same year. The nature of their acquaintance and details of the sale are still largely unknown. In 1911, after Küppers-Loosen's death, his sister donated the purchased images to the Rautenstrauch-Joest Museum.

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<sup>30</sup> Dean C. Worcester, *Notes on the Philippines: Memoranda Relating to Negatives of Photographs Taken in the Islands*, Department of Ethnology, Box 66 (757), National Anthropological Archives, Smithsonian Institution.

The museum's website describes the photographs as having been produced by the Bureau of Non-Christian Tribes. This was an agency created to survey Philippine indigenous populations under Worcester's watch. The images that are in this museum have all been digitized, but are not accessible online. A photo archivist manages this collection.

*10. University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia, PA*

This natural history museum has a set of about 200 lantern slides as well a silent film attributed to Worcester. A senior archivist oversees both collections. In addition, a film archivist on staff reports to the senior archivist and manages the moving image. The lantern slides and moving image have been digitized. The materials in this institution were purchased from Charles Martin in 1914. Martin served as government photographer in the Philippines from 1902 to about 1914. From 1915 to 1946, Martin served as staff photographer, and later, chief of the *National Geographic Magazine* photography laboratory. As government photographer, Martin was involved in numerous photographic projects, presumably under Worcester's supervision.

Table 3.2 provides a summary of each institution's photographic holdings, who donated them, and when

**Table 3.2.** Summary of Holdings, Their Donors, and Dates of Donation by Institution

<b>NO.</b>	<b>INSTITUTION</b>	<b>IMAGES AND ACCOMPANYING TEXTS</b>	<b>DONOR</b>	<b>YEAR OF DONATION</b>
1	American Museum of Natural History	Two-volume scrapbooks 83 Lantern slides	Dean C. Worcester	Ca. 1913
2	Field Museum of Natural History	Over 4,000 Copy-Negatives (of Newberry Prints) and positive prints from these copy-negatives, glued on scrapbooks	Edward E. Ayer	Ca. 1911
3	National Anthropological Archives	279 Positive prints Typewritten index	Dean C. Worcester	1902
4	Newberry Library	5,340 Positive prints Five-volume typewritten index	Edward E. Ayer	Ca. 1911
5	Peabody Museum of Archaeology and Ethnology	5, 175 Positive prints Two-volume index	Cameron Forbes	1912
6	Rautenstrauch-Joest Museum	3,778 Positive prints Typewritten index	Georg Küppers-Loosen	1911
7	U. Michigan Bentley Historical Library	About 200 positive prints	Alice W. Day	Ca. 1950
8	U. Michigan Museum of Anthropology	4,662 Glass negatives Acetate copy-negatives Lantern slides Two-volume typewritten index Prints from glass negatives	Frederick Worcester	1957
9	U. Michigan Special Collections Library	About 800 positive prints on scrapbooks	Dean C. Worcester	1914
10	U. Pennsylvania Museum of Archaeology and Anthropology	About 200 lantern slides Silent film	Charles Martin	1914

### 3.2.3. A Suitable Candidate for Virtual Reunification

The Worcester photographs present a compelling case for virtual reunification. All respondents interviewed for this study voiced some desire to provide greater and wider access to this dispersed collection. There have been a number of specific attempts to

distribute digitized copies of the images and efforts to link the collections. Since the 1970's, the University of Michigan Museum of Anthropology (UMMA) has tried to reconnect the images through a proposed union catalog. More recently, UMMA and Field Museum began talks of collaborating to create an online project that aims to link both collections.

Heritage professionals and administrators in charge of the collection indicate steady growth of interest in the collection evidenced by the number of requests for copies at the University Michigan Museum of Anthropology since production in 1998 of the CD-ROM, *Imperial Imaginings: The Dean C. Worcester Photographic Collection of the Philippines, 1890–1913*, and the inauguration in 2001 of the online resource, *United States and Its Territories: Age of Imperialism, 1870–1925* by the University of Michigan Special Collections Library. Note that these are two independent digitization efforts by two units within the same university.

Worcester's photographs are divided among museum, libraries, and archives, and these institutions are independently pursuing different digitization strategies. As indicated in the overview of institutional holdings, not all images have been digitized. Scanning projects that have been undertaken, however, did not adhere to a single standard, nor conformed to a unified process. Some institutions provide online access to some images, such as the Special Collections Library at the University of Michigan and the National Anthropological Archives of the Smithsonian Institution. Others choose to keep their digital copies for in-house use only, such as the Field Museum in Chicago and the Rautenstrauch-Joest Museum in Germany.

### **3.3. DATA COLLECTION, ANALYSIS, AND INTERPRETATION**

This project draws on data gathered from two qualitative data gathering methods: archival research and semi-structured interviews. Table 3.2 summarizes the two data



gathering methods. The left column illustrates the period when archival research was conducted as well as the most common forms of records consulted. The right column illustrates the details of the interviews, namely the period they were conducted, the number of participants and their breakdown by groups, and finally the data generated from of these interviews. I then triangulated these in relation to the literature on virtual reunification and the conceptual framework of the study

**Table 3.3.** Data Collection and Timeframe

ARCHIVAL RESEARCH	SEMI-STRUCTURED INTERVIEWS
July 2010–May 2012 10 Institutions 9 On-Site / 1 Off-Site	November 2011–June 2012 25 Respondents Heritage workers in-charge of the collections (19) Researchers (2) Representatives from funding agencies (4)
Institutional records, i.e., accession files, correspondence and reports Worcester photographs and indexes Worcester correspondence, publications, reports, and notes	Interview transcripts Field notes Memos

### 3.3.1. Archival Research

I conducted archival research between July 2010 and May 2012. During this time, I conducted site visits to all repositories, except the Rautenstrauch-Joest Museum, which is located in Cologne, Germany. Each visit involved access to the Worcester images and their accession records, which include correspondence, deeds of donation, and projects reports detailing previous actions on the Worcester holdings. The archival research aimed to understand the overall scope and general physical condition of the collection. In the nine site

visits, the Worcester images were requested for examination to account for their content, format, and condition. I examined available accession files and reports to verify the context of their accession. Whenever available, I also consulted project reports, data on user requests, and strategic plans around digitization.

At the time of data gathering, the collection in Germany was inaccessible due to staff unavailability and storage renovation. It proved unfeasible to arrange a visit on account of geographic distance, difference in time zones, and holiday breaks, which posed major limitations to coordinating a site visit. Access to this collection was done online through email correspondence as well receipt of digitized copies of all images, accession information and a complete listing of accompanying metadata transcribed on Excel spreadsheet.

I also compared the holdings of two institutions from June to July 2010. This activity encompassed comparing approximately 2,000 prints at the Newberry Library with the digital versions of the negatives from the University of Michigan Museum of Anthropology to establish correspondence between two collections.

During the archival visits, I wrote field notes and memos that were later triangulated with findings from the interviews. In some cases, interview questions were adapted to accommodate information discovered from archival research such as the context of accession, previous digitization projects done on the images, and the frequency of research requests. Significant themes were identified during my archival visits: context and story of dispersion, variation of image formats and arrangements, relative number and versions of images, and varied attribution of ownership and provenance.

My effort to locate the various institutions that house the Worcester collection, while not exhaustive, involved consulting several sources. In searching for the Worcester collections, I examined archival finding aids and Worcester's manuscript collections at the

Bentley Historical Library, read published sources about Worcester and his images, and followed referrals from heritage professionals and researchers. In order to verify possible heritage repositories that may keep copies of the Worcester images in the Philippines, I visited leading repositories in Manila in July 2011. These institutions included the leading state heritage institutions of the Philippines: the National Archives, National Museum, and National Library. I also visited two private museums, the Lopez Museum and Ayala Museum, and a private library, the Filipinas Heritage Library. Finally, I conducted research in three leading university archives, the University of the Philippines, Ateneo de Manila University, and the University of Santo Tomas. I verified that none of these Philippine institutions hold Worcester's negatives or prints.

### **3.3.2. Semi-Structured Interviews**

The three major groups of stakeholders involved in the study are 1) heritage workers from the ten owning institutions, 2) representatives from funding agencies, and 3) researchers. The interview questions primarily focused on eliciting responses about the interviewee's idea on product, process, expertise, and resources necessary to pursue virtual reunification. I also asked participants to describe what they foresee as potential challenges to reunification and inter-institutional collaboration. After each interview, I prepared field notes detailing the highlights of the conversation. The interview protocols are reproduced in Appendixes 1, 2, and 3.

I conducted semi-structured interviews using interview protocols designed for each of the three stakeholder groups. Interview sessions lasted about one to two hours at a location of the interviewee's choosing. Consequently, all face-to-face interviews transpired at the respondents' respective institution. All in-person and phone interviews were digitally

recorded, with consent of the interviewee, and were later transcribed. Questions were open-ended, and allowed for follow up on interesting points with additional questions as well as prompt for details as necessary.

### **3.3.3. IRB Matters**

My research is exempted from Institutional Review Board (IRB) oversight. Prior to conducting face-to-face or phone interviews, I sought verbal consent for the session to be audiotaped. Respondents were also notified that whenever they felt uncomfortable to answer any question, they are free to say so and not respond. All interview participants were told that interview sessions may be terminated at any point if they wish to do so. In order to protect the identities of my interview respondents I removed all identifying markers in all the transcripts, memos, analysis and reports.

### **3.3.4. Recruitment of Respondents**

To recruit interviewees, I contacted each of the ten owning institutions and asked: “Who is the person in charge of making decisions over the Worcester image collection?” I identified further respondents through referrals from the initial interviews. Direct responsibility over the images generally fell on more than one individual; for instance, when a photo archivist, a collections manager, and a curator all share responsibility over the collection. In such cases, all responsible individuals were interviewed. Table 3.4 summarizes the number of interviewees per heritage repository and the job description of each interviewee.

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. These four were the 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. Table 3.5 provides the respondents from funding institutions and their job descriptions.

**Table 3.4.** Respondents from Heritage Repositories

<b>NO.</b>	<b>INSTITUTION</b>	<b>JOB DESCRIPTION</b>	<b>TOTAL (N=19)</b>
1	American Museum of Natural History	<ul style="list-style-type: none"> <li>• Head of Special Collections and Photo Archivist</li> </ul>	1
2	Field Museum of Natural History	<ul style="list-style-type: none"> <li>• Photo Archivist</li> <li>• Collections Manager</li> <li>• Curator</li> </ul>	3
3	National Anthropological Archives	<ul style="list-style-type: none"> <li>• Archives Team Leader and Photo Archivist</li> </ul>	1
4	Newberry Library	<ul style="list-style-type: none"> <li>• Bibliographer of Americana and Director of Reader Services</li> </ul>	1
5	Peabody Museum of Archaeology and Ethnology	<ul style="list-style-type: none"> <li>• Head of Archives and Photo Archivist</li> </ul>	1
6	Rautenstrauch-Joest Museum	<ul style="list-style-type: none"> <li>• Photo Archivist</li> </ul>	1
7	U. Michigan Bentley Historical Library	<ul style="list-style-type: none"> <li>• Head of University Archives Program</li> <li>• Head of Reference Division</li> </ul>	2
8	U. Michigan Museum of Anthropology	<ul style="list-style-type: none"> <li>• Curator</li> <li>• Collections Manager</li> <li>• Past Curator</li> </ul>	3
9	U. Michigan Special Collections Library	<ul style="list-style-type: none"> <li>• Curator and Outreach Librarian</li> <li>• Past Director, Curator and Outreach Librarian</li> <li>• Associate Director</li> <li>• Consultant Librarian (Southeast Asian Bibliographer)</li> </ul>	4
10	U. Pennsylvania Museum of Archaeology and Anthropology	<ul style="list-style-type: none"> <li>• Head of Archives</li> <li>• Film Archivist</li> </ul>	2

**Table 3.5.** Respondents from Funding Agencies

<b>No.</b>	<b>INSTITUTION</b>	<b>JOB DESCRIPTION</b>	<b>NO. OF PARTICIPANTS (N=4)</b>
1	The Andrew W. Mellon Foundation	Program Officer, Scholarly Communications and Information Technology	1
2	Institute of Museum and Library Services	Senior Library Program Officer, Library Services Discretionary Programs	1
3	National Endowment for the Humanities	Senior Program Officer, Division of Preservation and Access	1
4	National Historical Publications and Records Commission	Executive Director	1

### *Interview Participants*

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. Table 3.6 summarizes the interview participants by stakeholder groups and job description.

Nineteen interview participants came from the ten owning institutions. These respondents were archivists, curators, librarians, and collections managers.<sup>31</sup> 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.

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<sup>31</sup> “Collections manager” is a job title specific to the museum community. The collections manager is responsible for the planning and implementation of activities that ensure the long-term preservation of museum collections. This responsibility encompasses keeping track of all museum objects, maintaining records of ownership and borrowing, and monitoring the safety and condition of objects on display. See: Anne Fahy, *Collections Management* (New York: Routledge, 1995) and Susanna Hillhouse, *Collections Management: A Practical Guide* (Cambridge, England: Collections Trust, 2009).

**Table 3.6.** Interview participants by stakeholder groups and job description

<b>INTERVIEW PARTICIPANTS (n=25)</b>		
<b>Stakeholder Group</b>	<b>Job Description</b>	<b>No. of Participants</b>
<b>Heritage Professionals from Owning Institutions (n=19)</b>	Archivists	10
	Curators	6
	Collections Managers	2
	Librarian	1
<b>Funding Agency Representatives (n=4)</b>	Executive Director	1
	Program Officers	3
<b>Researchers (n=2)</b>	Professor	1
	Exhibit Intern	1

The two additional groups included representatives from funding institutions and two researchers. The group from funding institutions comprised four program officers and one executive director. The two researchers included one professor of American Culture in a liberal arts college in the U.S. currently writing a book about the Worcester photographs and one undergraduate student of history working as an exhibition intern for a special collections library in another liberal arts college.

### *Coding and Analysis of Emergent Themes*

Field notes and transcripts of interviews were coded to identify processes and themes in the data and their attendant properties.<sup>32</sup> In this project, analysis was an iterative process. Previously coded transcripts and notes were recoded as necessary as new themes and codes emerged. As data accumulated for a given code, memos were composed to capture emergent understanding of the theoretical aspects of the code and remaining questions regarding the code that deserve additional data collection and analysis. Memos were prepared for each significant theme. These memos provided the basis of the findings reported in Chapters 4 and 5.

<sup>32</sup> Barney G. Glaser and Anselm L. Strauss, *The Discovery of Grounded Theory: Strategies for Qualitative Research* (New Brunswick: Aldine, 1967 [2009 reprint edition]) and Miles and Huberman (1994): p. 50-89.

### 3.3.5. Triangulation of Archival Data and Interview Data

The research draws on two complementary data sources. As Chapters 4 and 5 illustrate, documentary sources can verify, supplement, or further illustrate claims made in interviews. At some points, interview questions clarified information gathered from correspondence and reports. Records can trace and capture information beyond the knowledge or memory of any single respondent. In this sense, archival sources provide historical details about the collection. In addition, actual use of the images reveal the extent of the collection beyond what finding aids and catalogs can provide. Similarly, interview responses provided more contextual detail and explanation to recorded information and archival documentation. Findings from the two data sources were analyzed in relation to virtual reunification literature and the conceptual framework this research (see Figure 3.2).

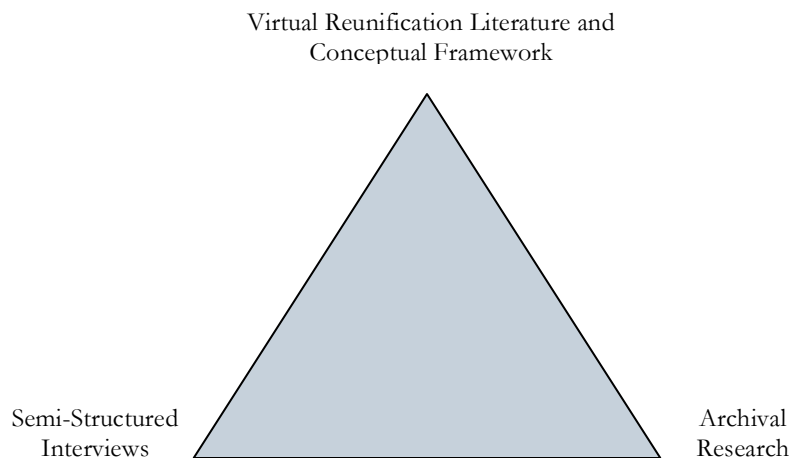


Figure 3.5. Triangulation of Data

### 3.3.6. Scope and Limitations

This dissertation analyzes virtual reunification projects through the lens of the Worcester ethnographic photographs. I identified and analyze the challenges and barriers that prevent this collection from being reunified. To do this, my research explores the concerns of potential participants about virtual reunification by asking key stakeholders to



speculate on a prospective Worcester reunification project in relation to current funding opportunities, digitization priorities and strategies, anticipated product and process of reunification as well as availability of resources and personnel. Since some questions posed hypothetical situations, respondents were unable to describe in detail the specific steps to a process that has yet to be undertaken. The responses reflect this in a certain tentativeness and obvious contingency. Nonetheless, this study is designed to capture the considerations of those strategically positioned to articulate the barriers and limitations that prevent a dispersed collection from being reunified.

Participants from owning institutions outnumber those from other stakeholder groups, i.e., funding institutions and researcher users of the Worcester images. This study captures the attitudes and perspectives of heritage professionals and administrators who tend to articulate local needs and priorities. A majority of the interview participants work as archivists, curators, librarians, or collections managers across ten heritage institutions. Members of this group vary considerably in terms of professional training and areas of responsibilities. Yet, they are best positioned to express the concerns of undertaking a digital project in their respective units. The participants have not worked together on any previous collaborative endeavor, nor have they met as a group to discuss virtual reunification. Most study participants have the desire to pursue virtual reunification, but their knowledge of the dynamics of inter-institutional collaboration is fairly limited. The study also notes a lack of expertise in digitization and web interface design among these heritage administrators. Data interpretation shows that this group will likely pursue virtual reunification if it benefits the pursuit of traditional heritage function of description, collections management, repatriation, and access.

Virtual reunification is a relatively new strategy and means different things to different people. This project adopted an open approach to this by not endorsing any specific definition and by simply stating that virtual reunification is a strategy to gather together dispersed collection using digital technology. This viewpoint presents challenges and opportunities. Virtual reunification is a challenge in the sense that study participants ended up providing several visions of what the product of reunification would do and the process required to accomplish the task. But it is also an opportunity to map out areas of convergence and divergence and how these relate to institutional tasks and responsibilities.

Interviewees from the four funding institutions represent diverse missions and priorities. Nonetheless, they provide significant perspectives on what constitutes a fundable reunification project. The findings presented in chapter 4 consolidate the perspectives offered by representatives from funding institutions. While section 4.3 of this dissertation characterizes which aspects of virtual reunification will most likely generate funding support, it does so without specifying which agency will likely do so.

The two researchers interviewed for the study have academic interests in the Worcester collection.<sup>33</sup> Both researchers were actively accessing the collections in various repositories during the period of data gathering for this dissertation. As researchers only represent one category of users, other user categories (such as genealogists) that access the collection were not included in this research.

In the presentation of data, I offer nuanced and specific details of the problems and issues particular to the dispersed Worcester collection and the ten institutions that house

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<sup>33</sup> While academic and scholarly use constitutes a significant user category for the Worcester collection, anecdotal evidence stress that majority of actual users of the collection are non-academic users whose interests lie in genealogical and heritage concerns. The researcher group in the study does not represent the communities documented in the photographs nor have any affiliations with the Philippine community. This appears most striking in light of the perceived utility of virtual reunification in accomplishing digital repatriation by owning institutions.

them. However, detailed examination of a single case can speak to other cases facing similar conditions.<sup>34</sup> Institutions confronted by the challenges of dispersed collections may derive important lessons about the issues facing heritage professionals and administrators responsible for the Worcester collection. In particular, the barriers to reunification in light of the story and context of dispersion, the problems of versions and formats, and the challenges of diverse metadata motivate institutional respondents to pursue virtual reunification. In addition, many collections contain ethnographic photographs that will face challenges similar to the Worcester images. Considerations and questions regarding culturally sensitive content may be instructive for institutions dealing with photographic materials, whether or not they are scattered or dispersed.

This study's insights, therefore, will resonate with other institutions and collections with dispersed holdings, institutions with photographic collections that are ripe for digitization, and libraries, archives, and museums with sensitive materials. My findings are most useful to other libraries, archives, and museums that share dispersed archival image collections containing ethnographic photographs. For those seeking to understand the challenges and barriers of virtual reunification, this study provides contextual depth on pre-reunification decision-making.

As I will discuss in the next section, I achieved rigor in my data gathering and analysis to guarantee that conclusions and recommendations are based on a consistent approach and are reflective of actual conditions of the case.

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<sup>34</sup> Flyvbjerg (April 2006) and Yin (2009).

### 3.3.7. Evaluation Considerations, Reliability, and Validity

Ideas around rigor in qualitative research are different from quantitative studies. One proponent of grounded theory, Kathy Charmaz, encourages researchers to develop ways to ensure the credibility, originality, resonance, and usefulness of their work.<sup>35</sup> Janice M. Morse, et al. recommend verification strategies to ensure that such evaluation is done iteratively throughout the research process rather than *post hoc*.<sup>36</sup> In order to attain optimal reliability and validity, I made every effort to achieve congruence among the questions formulated by following a consistent interview protocol, the relevant literature engaged, the theoretical framework developed, the participants recruited, and the data collected, analyzed and interpreted.

To ensure a trustworthy and credible analysis, I triangulated between multiple data sources. These included interviews and archival research, relevant archival and virtual reunification literatures, as well as the theoretical framework developed in the study. My goal was to harness the strengths of each while responding to the limitations that each present.<sup>37</sup>

Interviews are effective only if the questions are clearly articulated and that respondents are encouraged to openly express their thoughts and attitudes. The interview protocols I used employ open-ended questions and this allowed participants to articulate their ideas freely. Participants were assured of anonymity in write-ups and reports to further encourage them to be genuine and candid. I sought to augment inaccuracies due to poor recollection through archival research and examination of available documentation and reports.

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<sup>35</sup> Kathy Charmaz, *Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis* (London: Sage, 2008): p. 181-183.

<sup>36</sup> Janice M. Morse, et al., "Verification Strategies for Establishing Reliability and Validity in Qualitative Research," *International Journal of Qualitative Methods* 1(2) (Spring 2002): p. 13-22.

<sup>37</sup> Uwe Flick, *Managing Quality in Qualitative Research* (London: Sage, 2008).

The interview protocol guaranteed that data from all respondents addressed similar topics. Using respondents' articulation of ideas on similar matters, I was able compare multiple perspectives between and among groups of participants. I intentionally recruited participants belonging to three stakeholder groups situated in various institutional settings (heritage professionals and administrators, representatives from funding institutions, and researchers). This allowed me to capture of a variety of responses and perspectives on a given issue. I wrote research memos during and after my data gathering activities to ensure that analysis was iterative and emergent. In writing memos, I sought out conflicting data, keeping in mind the natural variation that exists in a multidimensional and socially constructed world.<sup>38</sup>

My engagement with this research project spans over two years. This prolonged involvement provided enough time for me to develop deeper understanding of the issues at hand, acquaint myself with the institutions involved, and gain greater familiarity with the dispersed Worcester images. My sustained engagement in the project gave me extended opportunity to reflect on what I was learning.

Resonance is the capacity to speak to the degree to which the work makes sense to others who inhabit or study the world examined.<sup>39</sup> This term may reflect a qualitative approach to validity, and I aimed to make this research resonant in two ways. First, I made sure that my data analysis and interpretation accurately reflected the views of the respondents. My analysis of interview data began with an initial set of codes developed to reflect the themes of the interview protocol. However, as coding of interview transcripts advanced, new codes emerged while others had to be refined or disregarded. Second, I made sure that the themes forming from previous interviews get to be verified by asking follow up

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<sup>38</sup> Charmaz (2008)

<sup>39</sup> Charmaz (2008), p. 181.

questions by phone or email. Field notes composed immediately following each interview were useful in capturing initial observations and insights. Throughout my analysis, I shared emerging conceptual insights by soliciting reactions and feedback from interviewees.

This case study adopts a qualitative approach and its underpinning assumption is based on a constructivist paradigm. As a philosophical approach, constructivism acknowledges the value of subjective human creation of meaning while accepting some levels of objectivity. In this regard, according to Benjamin F. Crabtree and William L. Miller, “pluralism, not relativism, is stressed with focus on the circular dynamic tension of subject and object.”<sup>40</sup> The premise of constructivism is that reality is socially constructed and that actors in specific settings articulate and interpret the meaning of social phenomenon from their particular perspectives.

A qualitative approach benefits from the dynamic between the researcher and participants. As the researcher solicits responses from respondents, he or she enables them to tell their version of reality. Through these articulations, a participant describes his or her view of reality and this enables the researcher to better understand the participant’s outlook.<sup>41</sup> The analysis presented in this research therefore is my interpretation of what I have come to understand as the ideas of those who participated in this study. Characteristic of interpretivist work, I do not claim absolute objectivity, but I nevertheless endeavored to present the multiple perspectives of these participants as authentically and as accurately as I could while simultaneously bringing my own insights.

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<sup>40</sup> Benjamin F. Crabtree and William L. Miller, eds., *Doing Qualitative Research* (California: Sage, 1999), p. 10.

<sup>41</sup> Pamela Baxter and Susan Jack, “Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers,” *The Qualitative Report* 13(4) (December 2008): p. 544-559 and Creswell (2007), p. 73.

### **3.4. DATA PRESENTATION CONVENTIONS**

Chapters 4 and 5 present many quotes and excerpts from various data sources. On certain occasions, I incorporated long passages and quotations. I do this for two reasons. First is to provide evidence and to demonstrate how I interpreted and identified the themes that emanated from the data. Second to allow my readers to analyze the data for themselves, to generate their own insights, and to develop their own conclusions. In order to make the data incorporated in this study easier to distinguish, I used the following conventions consistently throughout Chapters 4 and 5:

#### **3.4.1. Participant ID numbers**

I designated each respondent with a unique alphanumeric code to promote the anonymity of interview respondents, i.e., CM2, R1, A6. Each participant was assigned a unique ID, which is used in all transcripts and field notes generated in the study. I cite quoted passages from interviews using this ID, for example: “What is Virtual Reunification?” (A4)

All ID numbers begin with a letter that indicates the general category of the interviewee. Throughout this dissertation, A stands for archivists, F for funding administrators, C for curators, CM for collections managers, R for researchers, and L for librarians. The number following a letter tracks down the number of respondents within that specific participant category. Thus, A4 means the fourth archivist interviewed. Table 3.7 provides a summary of the ID’s.

Table 3.7. Participant ID's

<b>PARTICIPANT CATEGORY</b>	<b>ID</b>
<b>Archivists (A) n=10</b>	A1
	A2
	A3
	A4
	A5
	A6
	A7
	A8
	A9
	A10
<b>Funding Administrators (F) n=4</b>	F1
	F2
	F3
	F4
<b>Curators (C) n=6</b>	C1
	C2
	C3
	C4
	C5
	C6
<b>Collections Managers (CM) n=2</b>	CM1
	CM2
<b>Researchers (R) n=2</b>	R1
	R2
<b>Librarians (L) n=1</b>	L1
<b>Total Respondents, 25</b>	

### 3.4.1. Block quotes

Block quotations are provided for two sources of data: interviews and archival records. Quotations are linked to respondents using ID numbers. I provide the participant ID number following a quotation, for example: (C2). I cite archival data in footnotes.

### 3.4.2. Quotation marks

I use double quotation marks to indicate a direct quote (i.e., “for example”). This means the interviewee actually said the words quoted or the text presented was a direct



passage from an archival or published source (i.e., correspondence, reports, accession record).

### **3.4.3. Emphasis**

I use italics to highlight certain words, phrases or sentences within a quote. In certain quotes, this is necessary in order to help the readers focus on essence of the quotation. Whenever I use italics or boldface type within quotes, I note it with “emphasis added” following the respondent ID. For example: (L2, emphasis added).

### **3.4.4. Ellipses**

I use ellipses whenever I omit a word, phrase, or small portion of a sentence in a quote. An ellipsis enclosed in square bracket (i.e., [...]), implies longer passages have been omitted. In such cases, I made every effort to guarantee that the original meaning of the quote was retained.

### **3.4.5. Square brackets**

I also use square brackets for words that I inserted to a quote in order to clarify meaning and avoid revealing the identity of the speaker or writer. For example:  
[interviewee’s name].

## CHAPTER 4

### GATHERING THE 'WHOLE': FUNCTION, AUDIENCE, INNOVATION

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.

This chapter identifies major themes that capture the various ways that stakeholders describe and understand virtual reunification. The first theme describes motivations for pursuing virtual reunification as identified in interview responses. The second describes stakeholders' ideas about audience and product. The third theme identifies features of innovation that funding agency representatives suggest that virtual reunification projects should pursue.

In presenting these themes, I shed light on the complex nature of virtual reunification as an institutional endeavor. I also reveal the various challenges of online reunification that emanate from multiple visions of online reunification's purpose and outcome in handling medium and format diversity and in representing the collections' context and content. Another challenge discussed arises from divergent sense of audience and access control. Using the combined elements of the proposed models of understanding virtual reunification—Linear and Goal-Oriented Approach (Figure 2.1), Process and Product Approach (Figure 2.2), and Stakeholders Approach (Figure 2.3)—I found that virtual reunification has several motivating potentials that effectively signify multiple visions of what the reunification process will achieve. In this chapter, I unpack these motivations and analyze interview data to isolate various motivations that participants offer for pursuing virtual reunification. These reasons are structured around functions that appear to inspire institutions to pursue virtual reunification; however, within each theme there are divergent visions that create tensions within and between respondent groups. My analysis suggests that the potential purposes of reunification projects ally closely with institutional functions and raise the appeal of projects for institutional respondents. Funders, on the other hand, articulate different goals and tend to emphasize the innovation and novelty of pursuing potential virtual reunification projects. Within and among these groups there are divergent

notions of access, audience, utility, and ultimately, varied approaches to valuing aspects of the project.

Thus, this chapter makes three contributions to the dissertation. First, it presents important themes surrounding product, process, and motivation for reunifying the Worcester collections. Second, the chapter highlights potential areas of conflict and tension emergent from these ideas. Third, taking into consideration the first two contributions, this chapter reexamines the models that make up the conceptual framework of this study.

#### **4.1. PURPOSE AND MOTIVATION**

Heritage professionals and administrators interviewed hold several ideas and priorities for virtual reunification. These perspectives can be organized into four major areas. Virtual reunification has been described as a strategy that will facilitate institutional functions around: 1) description; 2) repatriation; 3) collections management; and, 4) digitization and online access. Overall, reunification may be described as a collaborative partnership to create an online representation of the Worcester images that simultaneously:

- manages and exchanges metadata and other information related to the Worcester photographs;
- handles the challenges and limitations of images that appear in various formats; and
- provides access to source communities and other designated communities.

##### **4.1.1. Description**

Archivists, librarians, collections managers, and curators responsible for managing the Worcester images have access to various forms of metadata (further enumerated below). For them, virtual reunification offers the potential to address the limitations of descriptive

tools that are currently in place among owning institutions. To this end, reunification becomes a strategy for consolidating metadata and for facilitating the creation of an integrated finding aid.

Using virtual reunification to aid descriptive work figured prominently in responses of archivists. Respondent A4, a photo archivist, voiced frustration about the relaxed application of archival principles of provenance and original order when it comes to the treatment of photographic collections:

When it comes to photographs, I'm talking about what archivists do with photographs, there's a lot of stuff that they do that basically flies in the face of archival principles and practices ... It's because they're not regarding photographs as archival documents. I don't know what they're regarding photographs. But if we're going to say that this is an archival photograph collection, then we need to apply the same principles and practices to it that we do to other materials. Now, there are certain things that are going to be different because of the nature of the material and how it's used and the way it conveys information. *But for instance, the principle of original order and provenance should not be just thrown out the window because it's photos, right?* So, what you'll find a lot of people do with photo collection is, "Oh, we need to make this accessible, so we'll just digitize it." So they'll digitize the collection, and then they'll catalogue it on an item level (A4, emphasis added).

For A4, digitization for virtual reunification must adhere to the principles of provenance and original order. A4's statement also reveals potential tensions in developing a common representational tool for the Worcester collection: the purpose and function of description across diverse stakeholder groups may not be commonly shared nor practiced the same way. One virtue of digitization is that it can create the effect of many different orders, as indicated in section 4.1.3, *New Ways of Discovery and Interaction*. The insistence of favoring one mode of representation over others might become a source of tension among heritage professionals and administrators.

Consolidation of metadata from across multiple institutions achieves several objectives in the eyes of heritage workers. These objectives include better understanding of

the collection, tracing the story of their dispersion, as well as establishing the provenance of the images. This section further expands these points, beginning with the enumeration and description of the categories of metadata identified by this group interview participants.

### *Categories of Metadata*

The variety of available metadata on the Worcester collections requires further organization and rationalization. It is important to note that metadata is institution specific. Some came with the collection, some later added to augment it. In the context of the Worcester images, most metadata were created before descriptive standards as emerged. Institutional participants mentioned three main categories of metadata that are necessary to distinguish and capture: institutionally generated metadata, Worcester-created metadata that came with the images, and, finally, secondary sources such as published works that consulted and used the images.

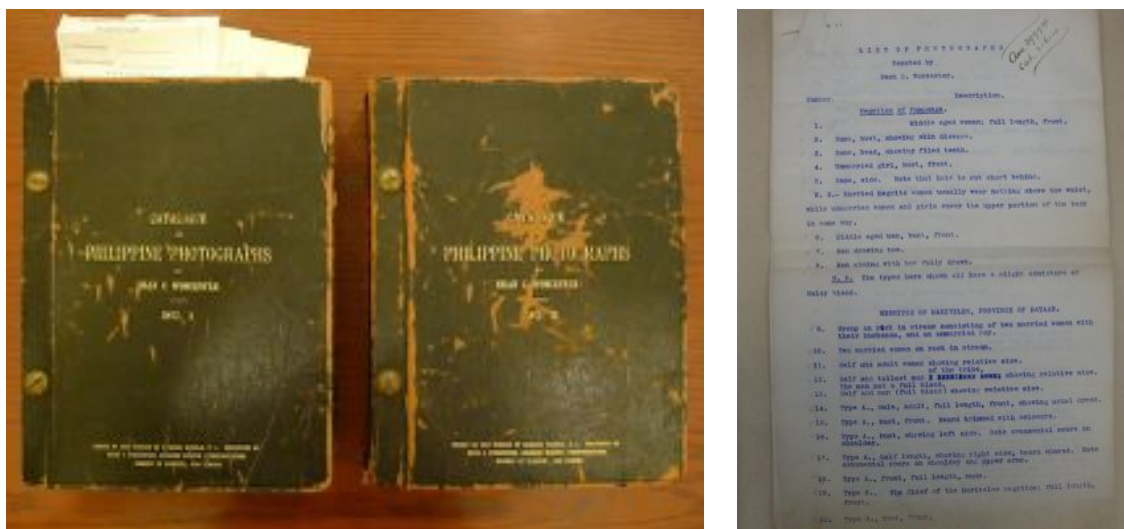
### *Administrative Metadata*

Institutionally created metadata includes descriptive tools such as finding aids, catalogues and indexes, and other information that emanate from institutional actions. Records found in accession files, such as correspondence relating to the donation, donor agreements, including notes or reports about the history of the collection in the institution are also part of this category of metadata. Respondents emphasized the importance of institutional metadata in understanding the custodial history of the collection. They also mentioned its value in accounting for decisions that each institution made about the materials in its possession. For example, A1 foresaw future utility of institutional metadata:

People in the future will be interested in how people in our time dealt with collections, how they researched collections. Not necessarily about what's in

the collections themselves, but how they were used, or how they were stored (A1).

This quote reveals a common sentiment among interview participants regarding the significance of metadata consolidation. The respondent equates the value of institutional metadata with the collections they document. Such metadata reveal two types of information. The first provides insight on how institutions managed and kept their respective Worcester collections over the years. The second considers documentation of institutional use and how the image collections figure in internal research activities.



**Figure 4.1.** Worcester-created metadata come in a variety of lengths and formats such as the two-volume catalogue at the Peabody Museum (left) and the typewritten list that came with the prints he donated to the U.S. National Museum (now kept by the National Anthropological Archives) in 1902.

### *Worcester-Created Metadata*

The accompanying listings and captions created by Worcester himself form another source of metadata. This includes his descriptions and classifications of indigenous groups that came as captions for the images. These vary in length and format. Sometimes these are multi-volume, typewritten indexes such as the ones held in at least three institutions: the Newberry Library, Peabody Museum and Rautenstrauch-Joest Museum. In some sites, they

appear as captions pasted beside the photos on scrapbooks like the volumes at the American Museum of Natural History or a simple list like the one at the National Anthropological Archives. (See Figure 4.1)

Heritage professionals and administrators want to emphasize this category of metadata above others because these accompanying textual materials provide evidence of Worcester's own interpretation of images. They also provide insight into Worcester's classification and representation of the various cultures documented by his photos.

Respondent A8 captures this sentiment:

Over the years, we [museum staff] have done several things to this collection that I argue provided important layers of knowledge and history to the images. But think we should also endeavor to find Worcester's voice in all of this, no matter how offensive they may be. I am especially curious about the racial classification evident in his descriptions. I think the best way to this is to isolate his captions that may have been buried in museum actions or inactions ... We need to see the colonial mind at work (A8).

In some of the captions and indexes, Worcester also identified other parties involved in the creation or preparation of the images. Hence, these metadata can help institutions to retrace provenance and provide correct attribution for images that have been disassembled for various reasons. In addition, metadata consolidation helps in understanding the custodial context of the images and their original order.

#### *Secondary and Published Sources*

Heritage professionals and administrators considered works that cite the Worcester images as part of the collection's history. For one respondent, work built on the Worcester images form part of the archivist's responsibility:

The next step is linking work that's produced from studying these collections. So, linking research reports, linking publications, linking source community comments. (A1)



Secondary works by researchers, including Worcester's various published articles, that draw on or discuss the collections supply a third source of information about the Worcester images.<sup>1</sup> Respondents pointed to other sources, such as published works as another significant source of metadata that can be captured in reunification efforts. Institutions see the value of capturing this body of information because they provide another context for image interpretation:

My impression is that the Worcester collection is often consulted [by Philippine scholars]. Researchers publish out of these sources. I think I'd want to see those publications consolidated with the photos. I think my colleagues will agree that these additional sources add another layer to the meaning of the images in our collection (C5).

The three categories of metadata—administrative metadata, Worcester-created metadata, and secondary and published sources—provide a range of information dispersed across institutions. The identification of these sources suggests that reunification efforts will depend greatly on the benefits of consolidation and management of metadata and the willingness of institutions to share them with one another.

In recent years, much attention has been given to making metadata more accessible to wider audiences.<sup>2</sup> It is notable from the interview data that representatives from owning institutions rarely discussed the needs of outside users in regards to metadata. The consolidation of administrative metadata will likely serve the needs of institutions in discovering their respective holdings.

For heritage professionals and administrators interviewed in this study, metadata consolidation and management effectively aid several other local objectives, including greater

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<sup>1</sup> Sullivan (1991) provides a detailed listing of Worcester's publications, which totals 45 titles. This list is also available at the University of Michigan Museum of Anthropology website: <http://webapps.lsa.umich.edu/umma/exhibits/Worcester%202012/publications.html>.

<sup>2</sup> Jennifer Schaffner, *The Metadata is the Interface: Better Description for Better Discovery of Archives and Special Collections, Synthesized from User Studies* (Ohio: OCLC, May 2009): p. 1-18.

knowledge of the collection, provenance identification, and the creation of an integrated finding aid. The discussion below describes these objectives in detail.

### *Improving Knowledge of the Collection*

Compared to other materials in their respective holdings, respondents from heritage institutions characterized the Worcester images to be less known (both internally and externally) and consequently less used but nevertheless a significant body of work:

We're keeping good care of the photos but they're not how we want them to be. They're not even used how we want them to be because they're not known ... So, institutionally, it's one of these nagging issues that we have a resource that is not being maximized (C5).

Interviewees largely attributed this lack of visibility to their own limited knowledge of the collection. Thus, the acquisition of in-depth knowledge of the collection figures significantly among the benefits institutions see of online reunification. Respondents from institutions regarded metadata management as one important step toward better understanding the Worcester collection.

For heritage professionals and administrators interviewed, virtual reunification efforts should come in the form of institutional metadata consolidation and management. As stated earlier, information on how institutions have managed, treated, and circulated the images in their respective collections provides contextual information that benefits both repositories and researchers alike. Having all metadata information in one virtual location facilitates the comparison and exchange of information across repositories:

[N]ot knowing what they have and what kind of information they have, even for information per photo is pretty limited. He might have a title. He might have given us a title or a quick little description, location of where it was taken. But it would be interesting if any of our materials overlapped, do the other institutions have additional information than what we have? Right now the database that we have set up is based on [Worcester's] original numbering that was assigned to each of the negatives. I don't know how the other

institutions have numbered theirs or identified theirs ... Did he [Worcester] reuse the same system multiple times? But you know, if there was some kind of unique identifier between all of them that could match up, but that's what I just don't know (CM2).

For some, the purpose of consolidating metadata and description is to facilitate better understanding of the history and movement of the collection among various institutions. As one photo archivist explains:

It's important to provide the context that the different descriptions came from ... For instance, if Joe Blow's Worcester photos and he had these descriptions I think it would be important to include the context of all the collections that you were getting the information from (A4).

Respondents, however, are not only interested in capturing and comparing institutionally created metadata. They also want to be able to distinguish Worcester's peculiar system of image ordering and classification. In the following statement, a researcher emphasizes how Worcester's system of description and indexing reveal the context of the images' creation:

It would be nice to see if you had a particular image to know how was that image cataloged in one archive versus another archive. Or is it absent in a particular archive. So seeing the gaps in the overlaps, seeing the close but not quite kinds of things. I mean those are all important, potentially very important, questions in terms of trying to understand more fully the creation of these photographs and sort of Worcester's intent in terms of allowing certain people to see certain images, but not allowing them to see other images (R1).

Thus, metadata consolidation helps to uncover Worcester's practices of image representation and organization and provides the basis of comparison for what otherwise appears as idiosyncratic. For researchers and heritage workers, Worcester's classification system goes beyond the practical utility of image ordering and arrangement. In the following quote, a curator relates image organization and arrangement with early anthropological practices of racial classification:

Many of the images with people were categorized according to certain kinds of racial types, a typology that I've never been able to match to anything else in the literature. His racial categorization, plainly speaking, was meaningless. The racial typology, however, may very well be meaningful for somebody who is doing the research into the question of racial typology itself ... A particular kind of anthropological issue and so having all those information available is really important as much as we may object to the intellectual currents behind it (C4).

Metadata consolidation, therefore, enables researchers and heritage professionals examine how the ordering of the images reflects practices of racial categorizations.<sup>3</sup>

### *Identifying Creators and Tracing Provenance*

Reunification can be a potential avenue to retrace the provenance of the photos. All respondents are aware of the involvement of other photographers that Worcester hired. They see reunification as a way to gather the pieces of the collection and correctly attribute images to various photographers. One collections manager describes the impossibility of attributing the various images to their rightful photographers by analog means:

I know that [Worcester] was very prolific with his photography. And I know he hired people to help him do some of the photography ... To me the idea of getting all that information into one spot would be just impossible [to do manually] (CM2).

Another provenance concern centers on how some institutions organize and file their photographic collections. In some repositories, such as the Field Museum and the American Museum of Natural History, the Worcester prints are indexed at the item level then, subsequently, organized by subject and intermingled with other photographic collections. Furthermore, at the Newberry Library, the Peabody Museum, and the

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<sup>3</sup> There is a rich body of literature that examines the relationship between racial classification and archives, in particular the role of archival images in racial profiling and anthropometry. See: Geoffrey Bowker and Susan Leigh Star, *Sorting Things Out: Classification and Its Consequences* (MIT Press, 2000); Allan Sekula, "The Body and the Archive," *October* 39 (Winter 1986): p. 3-64; Christopher Pinney, *Photography and Anthropology* (London: Reaktion Books, 2011); Elizabeth Edwards, "Tracing Photography," In Markus Banks and Jay Ruby, eds., *Made to be Seen* (Chicago: University of Chicago Press, 2011): p. 159-189; John Tagg, *The Burden of Representation: Essays on Photographies and Histories* (University of Minnesota Press, 1988); Elizabeth Edwards, *Raw Histories: Photographs, Anthropology and Museums* (Oxford: Berg, 2001).

Rautenstrauch-Joest Museum, the photographs are primarily grouped with donor papers rather than Worcester's materials (as discussed further in chapter 5). Thus, technical tools are seen to allow for comparison and attribution of provenance and ownership. As one interviewee observed,

And now with spreadsheets, and computers, and programming and hopefully down the road with linked data, *we're going to be able to restore the Provenance to these collections* (A1, emphasis added).

As A1 indicated, gathering the whole can facilitate the recovery of provenance, as well as a providing a way to represent the images by provenance.

### *Enhancing the Finding Aid*

The potential reunification of the Worcester images opens up some of the lingering challenges of describing and representing archival photographs that have been previously noted in the archival literature.<sup>4</sup> In his examination of descriptive practices of archival photographs, Allen C. Benson observes: "The archivist's approach to archival representation and item-level description of photographs is limited because it generally does not describe the photographs in photographic terms, and in the case of finding aids, it is common to exclude information about photographs at the item level."<sup>5</sup> Through this statement, Benson echoes the arguments of previously made by Joan M. Schwartz: in their current state, both

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<sup>4</sup> Allen C. Benson, "The Archival Photograph and Its Meaning: Formalisms for Modeling Images," *Journal of Archival Organization* 7 (2009): p. 148-187; Joan M. Schwartz, "Coming to Terms with Photographs: Descriptive Standards, Linguistic 'Othering' and the Margins of Archivry," *Archivaria* 54 (2000): p. 142-171; Jeffrey Mifflin, "Visual Archives in Perspectives: Enlarging on Historical Medical Photographs," *American Archivist* 70 (Spring/Summer 2007): p. 32-69; Tim,, "Framing Photographs, Denying Archives: The Difficulty on Focusing on Archival Photographs," *Archival Science* 8 (2008); p. 85-101; Brian Stewart, "Getting the Picture: An Exploratory Study of Current Indexing Practices in Providing Subject Access to Historic Photographs," *The Canadian Journal of Information and Library Science* 34(3) (2010): p. 297-327; and Nancy Bartlett, "Diplomatics for Photographic Images: Academic Exoticism?," *American Archivist* 59 (Fall 1996): p. 486-494.

<sup>5</sup> Benson (2009), p. 173.

practices of item-level and collection level descriptions are inadequate forms of representation for archival images.<sup>6</sup>

The Worcester images are described in a variety of access tools. Owning institutions use a combination of finding aids, catalogs, and indexes as access points to their collections. When Worcester images appear in finding aids, they provide very few details about the photographs. This confirms Benson's observation of the limited way that finding aids represent photographic information. For example, the finding aid for the Worcester Papers at the Bentley Historical Library states: "The Photographs series represent an accumulation of images documenting Philippine life and culture. Many of these photographs were used in Worcester's book *The Philippines, Past and Present*."<sup>7</sup> This finding aid provides a general listing of the photographs by subject, but does not enumerate the items within each.

Some institutions, such as the Peabody Museum and the Newberry Library, the primary access points to the images are online catalogs. The two-volume index accompanying the Worcester prints at the Peabody Museum called "Catalogue of Philippine Photographs," appears in HOLLIS (Harvard Online Library Information System). This online catalog, however, does not describe the prints. The same is true with CARLI (Consortium of Academic and Research Libraries in Illinois) entry of Newberry's "Index to Philippine Photographs." These online catalogs point to the indexes, but not to the images themselves.

Both the National Anthropological Archives and University of Michigan Special Collections Library provide thumbnail images, with Worcester's captions, in their online catalogs. The same is true with the Field Museum, except this institution's database can only

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<sup>6</sup> Joan M. Schwartz (2000), p. 142-171.

<sup>7</sup> Finding Aid, Dean C. Worcester Papers, Bentley Historical Library, University of Michigan (Available <http://quod.lib.umich.edu/b/bhlead/umich-bhl-86354?rgn=main;view=text>, Accessed October 24, 2012).

be accessed on site. Likewise, the American Museum of Natural History has logbooks and lists accessible only at the repository.

In my experience, as well as that of the two researchers interviewed (R1 and R2), access to the collection in various repositories relied heavily on “word of mouth” and social networks.<sup>8</sup> These networks include referrals from other researchers, librarians, curators, or archivists.

No site featured a finding aid solely dedicated to Worcester’s photographs. As discussed above, the images were either subsumed under larger collections or catalogued and indexed by item. Yet, when asked about what they foresee as the method for providing access to the reunified collection, archivists used the finding aid as the frame of reference. Consequently, they referred to the finding aid structure as a way to represent and consolidate the Worcester image collections metadata. For instance, one archivist underscores how the finding aid already addresses the issue of split or dispersed collections:

[The] standard in our archives is finding and equating interrelated materials. There's a section in finding interrelated materials or section for separated materials spelled out in current archival standards index ... I use that a lot to explain in finding aid, “Okay we have this collection, but here's the other parts of the material here, here and here.” What you're talking about is somehow just enhancing that perhaps, fleshing that out ... I mean are you going to create a completely separate online domain that's got this information and how is that going to be persistent and I just think that looking at the tools that we do have, for instance, a finding aid, to put that information out (A4).

In the following quotes, two archivists revealed their preference of the finding aid as a structure to follow in representing the Worcester images online:

But institutionally, I think we might as well stick with finding aids unless somebody can give me a better idea. I'm always open to other ideas (A1).

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<sup>8</sup> This finding has fairly been established in archives. See, for example, Elizabeth Yakel, “Listening to Users,” *Archival Issues* 26 (2) (2002): p. 111-127.

I would have a sort of detailed finding aid ... if there could be links to images, if we could put images in findings aids. I know places that are sort of being able to do that (A4).

Archivists anticipate what the virtual reunification of Worcester's ethnographic images might mean for archival image description. While they do not specifically explain or provide details on what they foresee as the kind of difference the project will bring in archival representation, they nevertheless see its potential in rethinking the finding aid for other dispersed ethnographic image collections.

Archivists and curators and librarians working in special collections indicated the flexibility of the finding aid to structure and represent the various metadata and information from various repositories while simultaneously presenting the images. These respondents endorsed working within the finding aid structure. In contrast, one museum curator revealed:

The goal is to bring these materials to researchers and source communities, I am not particularly looking at any structure or format to do this. I am more inclined to explore the most optimal way of presenting the images without being restricted by standards and rules that may not even be in sync with the nature of the collection (C2).

Museum collections managers and curators, while not necessarily opposed to adopting the finding aid, are not recommending any particular descriptive structure.

To a large extent, interviewees in this study articulated how they will respond to challenges and limitations of their respective descriptive tools: by consolidating the various metadata from existing finding aids, indexes, and catalogs, including those generated by Worcester himself. Their vision of the finding aid that would result from reunification builds from preexisting or older descriptive tools. This integration and consolidation of content from various descriptive tools into one online structure as well as the goal to recover provenance and represent original order may be similar to Yakel's discussion of "archival



pentimento.” Yakel defines pentimento as “the (re)discovery of a[n] overdrawn representation under a newer one.”<sup>9</sup> Similar to the layers of a painting, we can use the “pentimento” idea to explain virtual reunification as a potential iteration of the finding aid. Respondent archivists articulated creating an infrastructure that consolidates the imperfect descriptive tools that Benson, Schwartz and others noted.<sup>10</sup>

### *Summary*

The analysis of interview data shows that virtual reunification can be described as a process that will result in the creation of an online tool that will aid, and even enhance, archival image description. Heritage professionals and administrators see the completion of an online descriptive product as a strategy to consolidate and manage metadata. Here, the incentive for establishing partnerships comes in the form of metadata exchange and consolidation, creation of a common finding aid, and addressing the limitations of current descriptive practices in owning repositories.

#### **4.1.2. Repatriation**

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)

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<sup>9</sup> Elizabeth Yakel, “Archival Representation,” *Archival Science* 3 (2003): p. 12.

<sup>10</sup> Benson (2009), p. 148-187; Schwartz (2000), p. 142-171; Schlak (2008), p. 85-101.

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)?

CM 1 identified specific concerns like images showing nudity, physical modification like teeth filing and scarring, and body modifications such as tattoos and piercings. They also indicated uneasiness over photos of indigenous rituals and ceremonies, the killing or slaughter of animals, and depictions of death or funerary rites. Thus, heritage professionals and administrators consider virtual reunification as a strategy to bring descriptive products to “source communities,” which in the case of the Worcester images are the people whose culture is documented and interpreted in the images. This section draws together quotes from heritage workers about facilitating repatriation by means of digitization.

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” as an option to bringing collections closer to communities:

There are other examples of other institutions where they sort of have this virtual way of bringing objects to people. It's not the same thing as the tangible object but it's a start and, I think, it's one way of providing access that can lead up, open up even more access to the actual physical objects that creates an awareness of what's out there which, I think, is a good thing rather than sort of behind locked doors and obscure journals (CM1).

Complex legal and ownership issues often complicate physical repatriation. For institutions that have previous experience with the return of Native American collections following the requirements of the Native American Graves Protection and Repatriation Act (NAGPRA), repatriation implies compliance with established legal rules for the actual return of cultural objects and human remains. I found, however, that with virtual reunification, repatriation acquires a particular sense distinct from the actual and physical return of objects.

### *Return by Surrogacy*

Kimberly Christen 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.”<sup>11</sup> 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 can make copies. And they can share them. This is the joy of it (A1).

Institutional respondents regard the Worcester images as ideal candidates with which to explore the possibilities of digitally repatriating collections to source communities. One

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<sup>11</sup> Kimberly Christen, “Opening Archives: Respectful Repatriation,” *American Archivist* 74 (Spring/Summer 2011): p. 187.

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.

### *Access for Source Communities*

More recent efforts to expand archival notions of provenance, ownership, and custody speak to the responsibility of giving source communities greater access to Worcester collections.<sup>12</sup> Jeanette Bastian for instance, noted the potential role of descriptive standards and online access in the process:

Standards such as Encoded Archival Description now offer the potential of virtually reuniting fragmented collections and relating distributed collections through the on-line linking of finding aids.<sup>13</sup>

Photo archivists and collections managers in natural history museums consider virtual reunification as an opportunity for creating a platform for source communities to identify the locations of the images and establish what materials are held in which institutions. For these respondents, virtual reunification is a way to facilitate a more concerted effort to link and share surrogate images to source communities. Here, one respondent describes preference for reunification as a mode of reconnecting the images with the communities being documented:

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<sup>12</sup> Jeanette Allis Bastian, "Reading Colonial Records Through an Archival Lens: The Provenance of Place, Space and Creation," *Archival Science* 6 (2006): p. 267-284; Tom Nesmith, "The Concept of Societal Provenance and Records of Nineteenth-Century Aboriginal-European Relations in Western Canada: Implications for Archival Theory and Practice," *Archival Science* 6 (2006): p. 351-360; and Joe Wurl, "Ethnicity as Provenance: In Search of Values and Principles for Documenting the Immigrant Experience," *Archival Issues* 29(1) (2005): p. 65-76.

<sup>13</sup> Jeanette Allis Bastian, "A Question of Custody: The Colonial Archives of the United States Virgin Islands," *American Archivist* 64 (Spring/Summer 2001): p. 114.

At one point, we were calling it cultural repatriation ... Reunification, I think, sounds better actually, a lot better. Also, then it doesn't get confused with the repatriation law. There's not really too much bad that can happen from doing this. We don't want to offend them doubly, though. We offended them once when we collected the stuff and then hopefully they won't find again some of these photos offensive and actually get upset at us for trying to share them back with them. I don't know but we'll see (A8).

While respondents noted that there have been requests for copies from various groups in the Philippines, no community has made any formal petition to have the images repatriated. Indigenous groups of the Philippines are not covered by NAGPRA. Hence, American institutions are not legally mandated to implement the repatriation of Philippine artifacts.<sup>14</sup> Even more uncertain is whether or not archival images are indeed considered “returnable” objects. Thus, heritage professionals and administrators are motivated by the goal to reconnect the images with their source communities. Establishing linkages with indigenous groups may have been inspired by repatriation concerns in profound ways, but respondents indicate that they do this not because of any legal compulsion. NAGPRA may primarily cover Native American human remains and religious objects, but in effect it serves as the “mental model” of repatriation among heritage professionals and administrators interviewed.

### *Linking Indigenous Knowledge*

When asked about why the Worcester images should be digitized and represented online, respondent C2 explains:

So looking at photographs from the Philippines or looking at specimens from the Philippines, objects from the Philippines, cultural objects, I see digitalization as a way of breaking down the sort of barrier that in a sense, the doorway to [the museum] represents. You can come here, you can walk through it, you have to pay a fee maybe and you can see some stuff. But you really don't have access to what we've got. So digitization is in a sense trying

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<sup>14</sup> Other applicable federal and state laws or international treaties might exist. The respondents, however, did not mention any other legal mandate except NAGPRA.

to both share access with the rest of the world, but also for payoffs. If we are in the global cultural heritage management business, we are in fact in the role of managing other people's heritage. How do we do that? Who's responsible? How do we make statements about it? What should be seen and not seen? It seems to me that *we need to be partnering with the people whose heritage we are managing wherever they are* (C2, emphasis added).

Respondents saw these avenues of communication with source communities as offering new modes of engagement and repatriation. Through the possibilities afforded by online tools, reunification can offer a way for source communities to become more involved, and interact directly with institutions by contributing metadata or information about the images. Thus, respondents viewed virtual reunification as not only offering the potential to reach source communities, but also for museum and archival records to be improved and for heritage workers to learn from source communities.

This harkens to the more recent discussion around “participatory” approaches to practices of archival and museum representation. Katie Shilton and Ramesh Srinivasan argue for the incorporation of community voices to mediate and structure institutional functions of appraisal, arrangement and descriptions.<sup>15</sup> Using an online hub, they propose a model for encouraging marginalized groups to provide culturally specific knowledge. The museum community has long been in the thick of exploring alternative ways to reach out to communities beyond traditional exhibitions and displays. Saskia Vermeylen and Jeremy Pilcher, for instance, noted that institutions must go beyond uploading digital surrogates in virtual museums but instead create interfaces and platforms for dialogues between indigenous groups and curators.<sup>16</sup>

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<sup>15</sup> Katie Shilton and Ramesh Srinivasan, “Participatory Appraisal and Arrangement for Multicultural Archival Collections,” *Archivaria* 63 (Spring 2007), p. 87-101.

<sup>16</sup> Saskia Vermeylen and Jeremy Pilcher, “Let the Objects Speak: Online Museums and Indigenous Cultural Heritage,” *International Journal of Intangible Cultural Heritage* 4 (2009): p. 60-78.

Participatory efforts cluster around notions of gaining access to alternative or divergent expertise.<sup>17</sup> One curator saw reunification as an opportunity to not only make the images available, but also as a mechanism to hear what people from outside the institution thought about the Worcester collection. In the following statement, the curator explains how digitization should achieve this particular aim:

It's not just digitizing stuff but digitizing stuff for a purpose, and my purpose is co-curation... not having to pretend that I know everything about what we've got, it's finding out what other people have to say about what we've got (C2).

Getting the images online may be regarded as an effort to make the collections accessible to various communities. Interviewees envisioned a platform that can facilitate dialogue and exchange among institutions and communities, but they lack specific recommendations on how they intend to facilitate such interactions. Thus, these hopes around exchanges between and among institutions and communities require further examination in light of existing evidence on the limitations of web features and functionalities. For instance, from a study conducted by Magia Ghetu Krause and Elizabeth Yakel, providing interactive features to an online platform that delivers archival content does not necessarily mean that users of the site will utilize these functionalities.<sup>18</sup> Furthermore, Sue McKemmish, Shannon Faulkhead, and Lynette Russel, citing years of colonization experience and divergent epistemic cultures, raise the issue of mistrust as a barrier for indigenous Australians to participate in technologically mediated archival projects.<sup>19</sup>

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<sup>17</sup> Ramesh Srinivasan, Robin Boast, Katherine Becvar and Jim Enoto, "Diverse Knowledges and Contact Zones within the Digital Museum," *Science, Technology, & Human Values* 34(3) (2009): p. 735-768.

<sup>18</sup> Magia Ghetu Krause and Elizabeth Yakel, "Interaction in Virtual Archives: The Polar Bear Expedition Digital Collections Next Generation Finding Aid," *American Archivist* 70 (Fall/Winter 2007): p. 282-317.

<sup>19</sup> Sue McKemmish, Shannon Faulkhead, and Lynette Russel, "Distrust in the Archive: Reconciling Records," *Archival Science* 11 (2011): p. 211-239.

### *Summary*

Facilitating the repatriation of images using digital surrogates is another benefit of virtual reunification. Heritage professionals and administrators appreciated online reunification as a mechanism to potentially establish linkages with source communities. For this group, another outcome of reunification is the establishment of a platform for interaction, knowledge exchange, and dialogue between owning institutions and indigenous source communities. With virtual reunification, the return of objects takes on a different dimension with its reliance on digital surrogacy.

Respondents from owning institutions regarded virtual reunification as an effort to augment several limitations related to repatriation concerns. They articulated challenges such as the perceived lack of culturally specific knowledge among heritage professionals in charge of collections, the absence of formal channels of communication between Philippine indigenous groups and owning institutions, and the ambiguous legal instruments that might govern the return of ethnographic images. As a way of circumventing legal, physical, financial, and intellectual challenges facing physical repatriation, virtual reunification seem to be a viable compromise to achieve what Clifford Lynch and Helen Shenton call “cultural diplomacy.”<sup>20</sup> I discuss these issues and the challenges to their implementation in chapter 5.

#### **4.1.3. Collections Management**

Owning institutions see the potential of virtual reunification for developing a common approach to collections management concerns. Collections management, although a terminology shared across libraries, archives and museums, is not uniformly defined and done by these institutions. In this section, the term collections management is used to

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<sup>20</sup> Clifford Lynch, “Repatriation, Reconstruction, and Cultural Diplomacy in the Digital World,” *EDUCAUSE Review* 43 (1) (January/February 2008): p. 70-71 and Helen Shenton, “Virtual Reunification, Virtual Preservation and Enhanced Conservation,” *Alexandria* 21(2) (2009): p. 33-45.



encompass institutional responsibilities for the intellectual and physical control of collections, which means accounting for their location, ownership, and physical condition.

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.

#### *Attribute Which Set of Images are Kept Where*

Knowing “who has what” (C5) counts as a possible outcome of reunification that will benefit both researchers and institutions:

First step would be an overview of *who has what*, a census, so to speak, of where they overlap, where and I think, the hunch is that we know there's a lot of overlap between these. If you're in Ann Arbor and you're interested in a certain portion of the Worcester photos, and then, you think you have to go to the Newberry, but then ... you realize it's all in Ann Arbor for that area of interest. It's that kind of thing, where you don't have to be running from institution to institution, hoping to find another pocket of new material. So, really, a lot of the bibliographic apparatus to let researchers know who has what (C5, emphasis added).

Locating the images has been a primary motivation that drives many to pursue online reunification. By tracing the location of the images, owning institutions and researchers wish to uncover the dispersion story. The creation of a common digitization strategy rests partly in knowing other institutions that house complementary Worcester collections. Repositories wish to have a comparative understanding the collection by considering the diversity of institutions that house them as well as their divergence or commonalities of institutional practices and priorities.

### *Discovery of Unique Items*

Among owning institutions, virtual reunification will help distinguish the “original” and “unique” images in their respective collections. Consolidating every item in various institutions will assist in accomplishing this goal. In this quote, a collections manager expresses this capacity as a significant functionality:

I think it would be great to know what's out there ... that would be the most important thing and to know do we have duplicates of each other's material? Are they all originals (CM2)?

Identifying unique items helps an institution to set a preservation agenda for the collection and to determine resource allocation. One respondent characterizes uniqueness as “the one and only” (A2) or items that are only found in one’s collection. The “original” version on the other hand is associated with the negative, described as the true source of subsequent images. In the case of the Worcester collection, however, notions of uniqueness and originality can be more complicated than they seem. The relative notion of uniqueness and its application in the case of the Worcester images are further discussed in the next chapter.

### *Determine the Universe of the Images*

The actual number of images constituting the Worcester collection may be determined by gathering all the copies of the images in digital form. No detailed or authoritative information exists to show how many Worcester images survived to the present day. Respondents saw reunification as a strategy to facilitate a comprehensive accounting of the images. In the following quote, one archivist proposes a process of determining the universe of the Worcester photos:

There's two ways you're thinking about it in terms of images and in terms of objects. But to understand what's the totality of Worcester images out there, you're going to be looking at the prints and the negatives. If you don't have the negative you're going to fill in the blank with the print or vice versa. And then you understand the totality of images that he made (A4).

This motivation is closely linked with the goals of many institutions to identify unique items in their collections. One respondent (A2), however, articulated his or her institution's strong preference to digitize only items that are known to be unique. This makes a strong contrast to the eighteen heritage professionals and administrators (out of the nineteen respondents from owning institutions) who believe that digitizing each item, including duplicates, is the best strategy for discovering the unique image. In addition, this group also believes that digitizing everything can lead to the determination of the "totality" of the Worcester images.

### *Identify the Variety of Image Formats*

An image can appear in several formats (i.e., as a lantern slide, positive print, copy negative, etc.). Online reunification can track down all possible variations of formats that a particular image can exist in. In the following quote, one archivist expresses a sentiment shared by many owning institutions:

What's more important is to know that one particular image exists as a negative in that museum, and exists as a print in two other museums, and exists as a lanternslide somewhere else (A1).

For many institutional respondents, the ability to distinguish the various images from their material carrier can help researchers identify which repository will best provide the kind of material they are seeking. In some cases, the best version of an image may be a positive print, if for example the glass negatives have deteriorated, or been shattered or lost.

From a collections management standpoint, gathering the various versions of the images can enable a more complete survey of the collections, either by format or by physical condition. One collections manager reveals:

I think it would be great to know what's out there ... To me that would be the most important thing and to know do we have duplicates of each other's material. Are they all originals? I know that he was very prolific with his photography (CM2).

Several questions stimulate respondents' curiosity. For instance, how many positive prints were produced out of the set of copy negatives at the Field Museum? How many copy negatives are in collections? How many lantern slides survived? How many prints are in albums versus mounted on board? How many prints have corresponding glass negatives? Respondents consider virtual reunification as a strategy to provide answers to such questions.

### *Understand Modes of Arrangement and Presentation*

The Worcester images do not only appear in multiple formats, they are also laid out, presented, and organized in various modes. Depending on the repository, images may be found in scrapbooks, mounted on boards, or appearing as a series of lantern slides. For instance, the ordering of images in a scrapbook might reveal a story different from another

mode of presentation, such as a series of lantern slides (see Figure 4.2). This context can be useful in understanding not only the images but also early practices of representation.

In the following quote, a photo archivist recommends the digitization of entire pages of scrapbooks in order to aid discovery:

What I would like to do with those scrapbooks that we do have is actually photograph every page, not just every image, but every page so you can reproduce the actual scrapbook for... And I think, for the most part, the scrapbooks were not arranged in any meaningful way. But you never know until you start investigating it. But those scrapbooks are not going to last, and it's interesting to literally be able to turn the pages and see what they look like to people who did paste them in, and then, later go back and look at them. So there's a value to digitizing the pages in the scrapbook (A1).

Both institutional respondents (A1, A5, C1, C2 and C4) and researchers (R1 and R2) express interest in what Worcester's various modes of presentation might reveal about the practices of racial classification in particular and how that classification might figure in the early years of ethnological studies in general. However, these respondents did not elaborate how the desire to capture the variation in Worcester's mode of image presentation could translate in actual of digitization practice. Respondents from owning libraries, archives and museums (Archivist 1, 3, 4, 5, 7, and 9; Curator 1, 2, 4, 5 and 6; and Collections Manager 1 and 2) find value in understanding the mode of image presentation. Of these interviewees, however, only A1, CM1, CM2, and C1 feel strongly about capturing this feature in the digital realm.



**Figure 4.2.** 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.

### *Summary*

Collections management, then, benefits from virtual reunification. This underscores a consistent finding of this research: that the value of reunification is judged according to the institutional processes it can support. For heritage institutions, achieving collections management priorities and targets will outweigh the importance of online product.

Interview respondents saw reunification as having the potential to improve specific management features. It will allow owning institutions to understand the extent of the Worcester collection as well as facilitate both physical and intellectual control of the images. The variety of image formats and their dispersed locations generate questions about how to best approach the materials from a collections management standpoint. Gathering the dispersed images allows for the capacity to account for the locations, conditions, formats and modes of presentation and other material aspects of the images. Heritage professionals and administrators from owning institutions thus regard virtual reunification as a process that can achieve collections management goals.

#### **4.1.4. Digitization and Online Access**

Digitizing collections and organizing online digital projects, such as web exhibitions and online catalogs, are related endeavors. Sixteen of the nineteen participants from owning institutions, are either involved in or have been involved in developing and implementing some form of digitization programs or web projects within their respective organizations. The interview data suggests that twelve of these heritage professionals and administrators engage in collaborative online projects with other institutions, while the rest are aware of similar efforts in their field. In the following quote, a photo archivist (A4) describes a previous collaborative exchange between his or her institution with another respondent (A1):

I have sent finding aids that I have written to places that hold [complementary] material. For instance, A1, they have a collection of glass negatives and at a previous job. We paid to have them all scanned because they were relevant to our project and I actually arranged them and described them for our project and then I sent A1 a finding aid for that. I don't know if it's useful, hopefully it's useful to them ... We can still share that kind of information. We can even post it, we can even have if we have an online finding aid or some kind of digital thing where we can either link to the other archive or just include all that information (A4).

Motivating factors for pursuing reunification among these interview participants model after, if not learn from, ongoing or existing digital efforts, which may or may not involve the Worcester images, within their respective institutions. For some, virtual reunification is yet another method of providing access that will complement already existing digital projects:

We're providing better access to our collections via the Internet and we already do that with our image bank, with exhibits we do, with our subject guides. [Virtual reunification] is just yet another way (A9).

A9, together with respondents A1, A3, CM2, and L1 express strong enthusiasm over the potential benefits of putting information on the web. My interview analysis revealed a general belief among these institutional workers that once online, potential audiences and uses for the images can be limitless. These heritage professionals, therefore, correlate online availability with increase in access and research requests. In the following quote, a photo archivist describes how mere mention of the Worcester images in the institution's website led to a positive consequence:

Once it's on the web, you name it. Somebody's going benefit from it ... When our website got redone ... I had to rewrite the sort of section on the photo archives. I just mentioned Dean Worcester and I started getting requests ... That's just a small mention in a paragraph on a larger webpage (A3).

Other than its capacity to support traditional institutional functions, appreciation for virtual reunification also emanates from the potential for both heritage workers and



researchers to interact with the Worcester images in a new way. In this sense, reunification becomes the primary justification in prioritizing the collection for digitization. In addition, reunification provides opportunities for making the collection more accessible to other expertise and departments within an organization.

### *New Ways of Discovery and Interaction*

Archivist 1, 3, 4, 5, 7, and 9; Curator 1, 2, 4, 5 and 6; Collections Manager 1 and 2; and Librarian 1 consider the digital environment for opening up opportunities to create platforms that can enable different forms of interaction with images of diverse format. Institutional respondents anticipate having the ability to perform tasks that are difficult, if not impossible, to do with analog materials, such as the capacity to easily regroup and reorganize images. For heritage professionals enumerated above, including the two researchers interviewed (R1 and R2), virtual reunification could allow them to see the images in an integrated manner. One archivist describes the possibility of lining up all the images together to discover links and continuities:

It's like an evidence trail. You could have access to all of the pictures. So you can say, "Okay, this is what's happening before this shot happened," and "this is what happened before." And you can almost make a chronology (A5).

For respondent archivists, following the archival principle of original order means organizing their respective set of images in accordance with Worcester's system of arrangement. Thus, original order can be determined using indexes or Worcester's numbering scheme that came with the images. The quote above, however, implies possible determination of original order for the consolidated images. A chronological arrangement of all photographs could reveal the sequence in which the images were produced. Features like

the one described above are anticipated to open up other modes of analysis for the images that may be difficult, if not be impossible, using the original analog materials.

### *Justification for Digitization*

Respondents A1, A3, A5, A6, A9, C3, C5, and CM1 want to use reunification to justify further digitization or higher quality digitization of their collections. For repositories such as the Bentley Historical Library, the American Museum of Natural History, and the Field Museum with no compulsory mandate for digitizing entire collections, digitization is based on demand. For these heritage professionals and administrators, initiating a virtual reunification project elevates the status of the collection to a level of importance within the organization and beyond. As one photo archivist puts it, virtual reunification will give them “a little bit of street cred” (A3) within the institution. For some institutions, wider support within the institutional structure can only help in setting up digitization priorities. Here, a photo archivist spoke at length on the several interrelated advantages of pursuing the project:

Something like virtual reunification to me would mean instant approval for, let's say, for a thousand Worcester photos that would go on the web. And then, something like that would, I think, maybe prompt other departments, the scientific collections to be a little less fearful of the big bad world wide web because, when used properly, it's great for research. And it's green because you're saving on airfare. People from far away can type in words and photos come up. I think, the recognition factor would be in the plus column. I think being able to collect information, get updated or new information from a collective group of users who didn't know about us before. And then internally, *I think it would give us a little bit of street cred*, as they say. And then, also within the participating institutions, I am in touch with all of the other ones, but it would be nice to have sort of a *consortium of photo archives*. There are a lot of library consortiums out there but for the archives, there aren't that many ... I think the benefit of having, let's just say, a consortium, is that our IT department is really good, but they, like everybody else, is overworked. And they probably, I think universities, big universities in particular, may have more, I'll say, computer resources, so that maybe we could get, by *pooling our resources*, by *coming up with a workflow* for this, is that we

could use what gets developed for this and use some of it on our own for, as I said, our current webpage. The photo gallery module is really pretty, but in my opinion, it's non-researchable. It's not very good for discovery ... And if I could work with others to develop one that is, and then end up using it here, that would be great (A3, emphasis added).

The prospect of collaborating with other prominent repositories also contributes to the importance of the collection and, thus, makes a justification for improved digitization. As with the statement above, having “a consortium of photo archives” to facilitate “pooling resources” and “coming up with a workflow” specific to image reunification, something uncommon in contemporary archival practice, will not only benefit the Worcester collection, but other collections as well. Embarking on reunification can be an opportunity for exploration of new systems or tools, an institutional equivalent of “research and development” (A7).

### *Involving Other Expertise within Institutions*

For interviewees in large, multi-department institutions such as the Field Museum and the American Museum of Natural History, reunification can open up access to other units and expertise within their respective institution. One collections manager enumerates the benefits of access to the images beyond the department responsible for the collection. This includes other units within the museum all the way to conservation efforts in the Philippines:

You can make this multidisciplinary that goes just beyond anthropology ... Because we do have colleagues in the other departments, for instance Zoology, do fieldwork in the Philippines ... And so, there are images of the landscape that Worcester would take in areas in which they work that might be important to them, too ... We are not only seeing cultural customs from back over 100 years ago but you're seeing maybe how the landscape has changed. One area that the museum likes to focus on is our conservation programs, which anthropologists and biologists go and do rapid inventories and work with the local groups in these areas to try to see what's there, to make sure that these areas are preserved and not overtaken by corporate

interests ... So maybe these photographs can help, not just here at the museum, but throughout the Philippines with people that are working towards conservation efforts. So that might be one way of making the persuasive argument why digitizing these photographs would be important and making these available. It would be an important consideration (CM1).

The respondent above partly speaks to a particular category of use identified in this study: in-house institutional use. While often overshadowed by outside research demand, internal utilization of the images over time figures in institutional determination of significance. This type of use, and why it matters to reunification, is further discussed in chapter 5 as *Internal Use*.

### *Summary*

Participants from owning institutions regard virtual reunification as strategy that can complement existing digitization and online projects. What motivates participants to engage in reunification is that the project seems to resonate with already existing digital programs and infrastructures. For some institutions, reunification can open up the opportunity to develop further a product that can incorporate and account for the limitations of previous projects. Reunification offers an argument in support of digitizing the images and an opportunity to be involved in a collaborative project that can in turn raise the prominence of both the Worcester collection and the units that house them.

All interview participants from heritage institutions agreed that reunification can be a way of developing an innovative platform to represent dispersed image collections. Some respondents from this group see the project as a way of using digital means to overcome the limitations of the analog and creating new ways of interacting with the collection. Given the collection's record of in-house use, embarking on reunification can become a strategy to involve expertise in other departments within the organization or from outside.

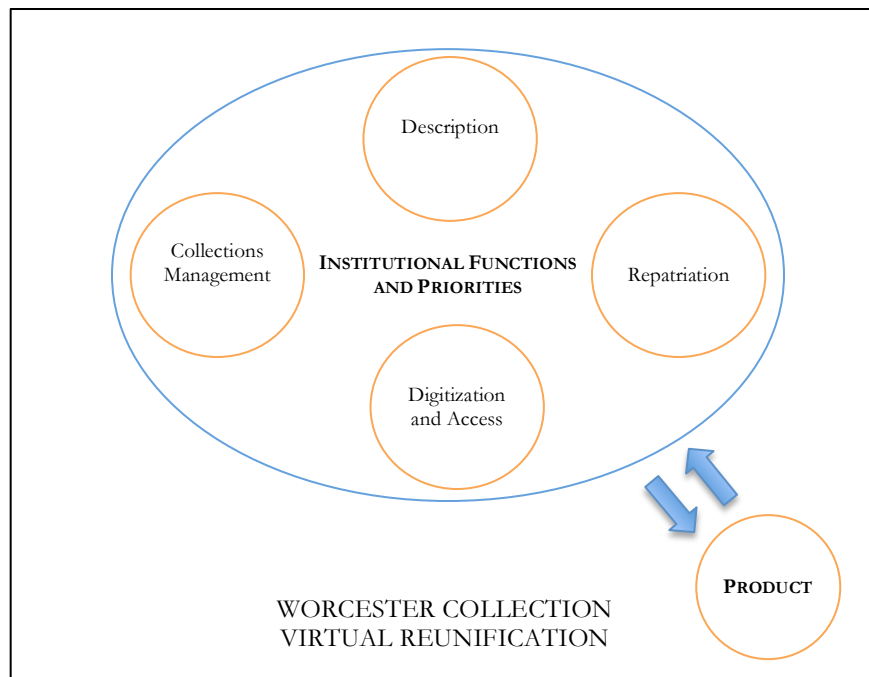
#### **4.1.5. Implications: Multiple Visions and Diverse Format/Medium**

Respondents from owning institutions regard virtual reunification as a strategy that ultimately results in the consolidated representation of the various dispersed pieces of the Worcester images. However, the gathering of the “whole” is not just an end in itself but a way to achieve certain institutional functions that those responsible for the collection have determined. In the case of the Worcester collection, these functions include cataloguing and description, collections management, as well as digitization and access. To a large extent, this determination responds to the challenges arising from representing and managing the medium (photography) and the consequent versions or formats (negatives, prints, lantern slides, etc.) as well as the complicated history and sensitive content of the images. If virtual reunification is cast in discussions as a strategy that supports those institutional functions and responsibilities, then the ultimate goal of reunification is not necessarily the presentation of the “whole” collection. Gathering the whole becomes a means to achieve an end.

Heritage professionals and administrators appreciate the potential outcome of reunification to the degree it will advance processing and descriptive work as well collections management and access priorities. This concern illustrates the importance of the dynamic relationship between process and product modeled in Figure 2.2. The analysis in this section reflects a more refined relationship between institutional processes and functions and the potential results of virtual reunification. Figure 4.3 illustrates how institutional priorities and functions will likely influence the potential outcomes of virtual reunification.

The findings illustrated in this section advance two ideas about the challenges of virtual reunification. The first pertains to the close relationship between institutional functions and responsibilities with the perceived product of virtual reunification. As a consequence of this dynamic, institutions articulate multiple visions of the specific

institutional functions that virtual reunification will support. The second relates to the diversity of the materials and versions of the dispersed collection. This reveals the role of medium and format in shaping virtual reunification actions and decisions.



**Figure 4.3.** Virtual Reunification: Relationship Between Institutional Functions and Product

The Worcester photographic collections appear in multiple versions and diverse formats, which constitutes another source of challenge to virtual reunification. Heritage professionals and administrators respond to the difficulty emanating from version and format concerns by proposing a number of activities, including exchanging and consolidating metadata, tracing image locations and versions, and accounting for physical arrangements of the images. These proposed actions index how the material condition of the collection contributes to the difficulty of pursuing reunification.

Institutional respondents assess the potential of virtual reunification in diverse ways. Heritage professionals and administrators indicate the value of virtual reunification in as

much as it can support institutional responsibilities of facilitating description, collections management, repatriation, digitization and access. This focus on institutional responsibilities—from managing and exchanging metadata to transcending the challenges and limitations of duplication, variety and format to bringing the images closer to their source communities—reveal that virtual reunification is valued for achieving certain institutional ends. Thus, efforts at gathering the whole are considered a means to an end, not ends in themselves. Here, the product can be as important as the institutional functions that it helps to facilitate.

Thus, the assembly of various pieces only constitutes one goal of the reunification process. The expressed enthusiasm by heritage workers over the process and outcomes that can be accomplished in gathering and consolidating the various pieces of the Worcester collections indicate that for virtual reunification to proceed, decision makers need to first assess what institutional function online reunification will help fulfill. The absence of such purposeful understanding will make such an endeavor difficult, if not impossible, to justify within an institutional context.

The multiple visions of the functions and responsibilities associated with virtual reunification enumerated in this section may not be divergent and mutually exclusive, but they reveal the variety of perspectives on nature of the process. While virtual reunification's potential to achieve many ends may be a cause for enthusiasm, these diverse visions project an overwhelmingly complicated and ambitious process. This complexity challenges institutions to collectively reassess their priorities and evaluate what the process will actually achieve.

## 4.2. AUDIENCE, ACCESS, AND CONTROL

The previous section outlined the perceived benefits and purpose that motivate institutions to pursue reunification. It provided a description of the multiple ways that institutional stakeholders describe the outcome of reunification in terms of institutional priorities and functions. This section presents responses from owning institutions and academic researchers regarding the intended audience of virtual reunification as well as desired levels of access and types of control necessary to view the collections online. This section discusses another source of potential challenges in reunification: the limits of what can be shown and the notions of audience.

### 4.2.1. Audience

Interview data show several themes that characterize the product and audience for online reunification. Heritage professionals and administrators demonstrate that a sense of audience and a sense of product are broadly interrelated. This group's perception of the needs of certain target users influences the design and development of the product. Likewise, their sense of what the reunified and online product should do, shapes how users will experience the images online. When asked, to articulate what should be the guiding principles for pursuing online reunification, one administrator of a special collections library responds:

What's the impact on users? What are we going to get for what we do? And I don't mean necessarily, we, the librarians in Special Collections but I mean the people who are coming to use our collections. What's the product? What's the deliverable and how valuable will it be for those who would come to be using our collections on site? What's the value added and all of that (A6)?

When describing the target audience and what a reunified product would do for them, interview respondents identify an online platform that accomplishes several things to



several different types of people. In this regard, researchers constitute the primary audience for online access, and only viewers with requisite digital tools and knowledge will be able to access the images online.

Institutional respondents express the importance of identifying the primary users of a virtual reunification project. However, some are uncertain about making distinctions between which particular product feature will match particular target users. As one head archivist for a natural history museum relates:

I think the user is more important [than other considerations], actually. Although there could be multiple users and that's where I'm not sure what their website should do exactly in terms of multiple things (A8).

Although interviewees have not yet collectively decided which user group to prioritize, several options are discernible from interview responses. Whatever its final product turns out to be, reunification will mainly serve owning institutions, the communities that the images document, researchers and scholars of history, anthropology, and natural history, Filipino immigrants living in close proximity to a respective holding repository, and lastly the general public. I discuss these groups in an order that matches the level of processing work that needs to be accomplished to make the collection ready for access, the sensitive nature of some images, and the level of control that institutions want to enforce in terms of access, dissemination, and proper ownership attribution.

### *Owning Institutions*

The first section of this chapter discussed how virtual reunification projects are primarily motivated by potentials to help carry out institutional functions and responsibilities. In general, then, respondents see benefits of meeting the needs of

institutions to manage and understand the collection takes great consideration. In the statement that follows, a collections manager explains why:

The institutions would have to be first. ... We have to be able to understand the product and be able to use it for other people to be able to use it ... I think having the institutions kind of be the first one, is that there are other potential projects that could be done, right? I mean you could do specific online exhibits of say the botanical pictures that we have. We could very easily do a little a side exhibit or a side grouping of things ... I would definitely think that the institutions have to be first on that user list (CM2).

In this quote, a collections manager describes how meeting the needs of owning institutions will potentially result in greater access and use. As the primary user group, institutions will likely use virtual reunification as a platform for coordinating descriptive work, collections management, and user access. A number of respondents from owning institutions mention the possibility of using reunification for creating interpretive projects such as exhibitions, a step beyond cataloguing and description.

### *Source Communities*

Virtual reunification fulfills institutions' responsibilities associated with repatriation by creating a platform that facilitates *digital* repatriation, as discussed in Section 1.2. For many institutions, members of the source communities whose cultures are documented by the Worcester photographs, constitute a significant category of audience for reunification. However, some express uncertainty over how indigenous groups from the Philippines would react to having the Worcester images accessible online. According to one photo archivist:

The thing about the pictures that we still don't have, that I think is crucially important in any of these projects that deal with source communities or perhaps with any photograph, is the ability for the source communities to comment ... We've got the pictures and we have the ability to put this stuff online. Let's work together to share the information that the source communities have. Sometimes they may not want to share, which is also their prerogative (A1).

Researchers and institutional respondents suggest that soliciting commentary to fill in certain knowledge gaps might be construed as biased towards institutional notions of access that may not align with how source communities define their rights regarding the images. Several interviewees acknowledge that a possible result of having the images accessible to source communities is that some indigenous groups may object to having the images uploaded online for indiscriminate access. Furthermore, individuals or groups within a specific community may have divergent views about free and online access. Institutional respondents express uncertainty about who might be best positioned to make judgments around the cultural sensitivity of the images. In addition, archivists, curators, and collections managers remain unsure whether or not digital repatriation will eventually result in positive interactions with source communities.

### *Researchers and Scholars*

Researchers from numerous disciplines constitute another user category. Among the most likely scholarly users listed by respondents are anthropologists, historians, visual culture scholars, zoologists, botanists, and geologists. In the following quote, a photo archivist provides a sense of multidisciplinary interest in the Worcester images:

Scholars researching Philippine History, scientists, these are current or past or maybe even future, and general historians ... So, anyone studying that period of history, and I'm sure I'm leaving out some. (A3)

Institutional respondents believe that making the images web accessible would potentially bolster research demand. Heritage professionals and administrators want a platform that solicits metadata and other information about the images from scholars and researchers. Some institutional respondents consider outside scholars and academic researchers as priority user group. Nevertheless, in-house institutional research use carries an

unacknowledged effect that influences institutional perspectives around value and significance. The different emphases accorded to in-house and external use receives further attention in chapter 5.

### *Filipino Immigrant Communities*

Seven respondents (A3, A5, C1, C2, CM1, CM2 and L1) wished to utilize the potential of the Internet to bring the collection to Filipinos within the immediate vicinity of the repository. For these heritage professionals and administrators, the local Filipino immigrant communities are among their immediate constituency. A collections manager points to Philippine diaspora groups as a category of potential audience:

Community members, both here in the US with the Filipino-Americans and then abroad with other diaspora groups throughout the world... (CM1)

Another interviewee emphasized outreach to Filipino-Americans in his (or her) local community. One curator (C2) argues that institutions need not look too far to seek out the primary users of the images. Here, the involvement of Filipino immigrants is not only a way to make collections accessible to them, but also a strategy for recruiting them as collaborators in creating more projects involving the collection and even as sources of funding support.

### *The General Public*

There is also a category of “general public” which remains imprecisely defined. Moreover, when respondents from heritage institutions talk about the general public, the conversation is less about the general public as an audience and more about restricted versus unrestricted access for all.

The category of general public includes other potential groups that will benefit from access to the collection that do not seem to belong to categories identified above. In the following statement, a collections manager discourages charging for access. Here, the respondent expresses enthusiasm for providing free access:

You know the way the web works right now, I think a lot of products are going to come out of it. I think people are going to do their own thing ... I personally am under the philosophy that these images should just be free for *anyone* to use. Kind of like the creative commons kind of a thing you can finally attribute where you got it, but do what you want with it (CM2, emphasis added).

In this case, the general public might be “anyone.” While broad access is not widely endorsed by institutional respondents given the ethnographic and sensitive nature of the images, a small number of interviewees nevertheless entertain the possibility of complete and unhindered access to the collection. The following section explores how respondents negotiate the institutional obligation to represent other cultures in a responsible manner in balance with an equally important mandate to provide access to collections in its care.

#### **4.2.2. Limits to What Can Be Shown**

Interview participants from owning institutions regard virtual reunification as strategy for providing greater access for the Worcester collection as well as a mechanism for exchanging information that will result in further discovery and knowledge about the images in their care. As discussed previously, heritage professionals and administrators interviewed envision the product of reunification to serve several audiences with a platform that accomplishes several things to several categories of users. However, implicit in interview responses is that there are the limits as to who gets to see which images and where they can be accessed. Two considerations become evident in this context, defining levels of access and enforcing some mechanism of control. Levels of access determine who might be

allowed to view certain types of images. The exercise of control aims to ensure proper attribution of ownership and to guarantee appropriate contextual information. For heritage professionals and administrators, access and control guarantee responsible representation of images that have sensitive content.

### *Types of Control*

One librarian pointed out the perceived “loss of control” (L1) over the images as posing significant challenge to online access:

I think the loss of control would come as an issue. Would all the curators have hyperventilation about the loss of control on those photos? But is that really the reason for not doing it? It's a question mark, I don't know (L1).

Institutional respondents relate the importance of exercising control over the dissemination of the images. This reflects on their decisions over the quality of images to upload and the extent of what can be done with the images once online. Control also dictates what amount of information should be given on the site as well as the management of attribution and reproduction rights.

Heritage workers identify two reasons for exercising control. First, it is a way to guarantee that owning institutions are given proper attribution for their respective collections. Beyond seeking acknowledgement and recognition, however, this type of control can also be regarded as a scheme to generate additional revenue from sales of copies or reproduction rights. One respondent (L1) identified control of ownership among the reasons that certain institutions are more willing than others to put materials online. However, the thinking around this has relaxed in recent years as heritage professionals and administrators like A1, C1, C4 and CM2 came to realize that this exercise of control does not necessarily provide a significant revenue stream. Recognizing that putting materials online may not

necessarily be giving up ownership over the images, one curator conveyed the changing attitude towards ownership and control:

I have evolved in my thinking on this, but one of the concerns I did have was with web distribution, was whether or not it was important for our museum to maintain some kind of ownership or control or whatever over the images: that once images are out on the web, they're everywhere (C1).

One curator maintains that while institutional ownership attribution should be maintained, the images should be freely available given that they are out of copyright:

There's no longer any issue of copyright. The issue that still exists is the issue of ownership, institutional ownership, but not copyright. My personal view is that materials like this that are so important ought to be completely freely available to any researcher (C4).

The second type of control is in ensuring that appropriate contextual information is relayed to those accessing the collection. One archivist (A8) frames the matter as an issue of providing context and mediation that seems to happen almost automatically when one views the image in person within the confines of the repository. Here, the same archivist expresses the possible absence of this mechanism in the online environment:

It needs to be explained and mediated. And that's the problem people, archives, in general, have. One of the things about having collections on-site and people having to come and do research there meant that there's always a mediator. And the archivist not only helps the researchers, guide them through the collections, but also explain if there's issues or problems and try to understand, talk to the researcher and try to find out what they're trying to do. Hopefully, they're honest, but that part you don't know, but you can let them know. But once you put the stuff on the web, and it's so easy on the web for things to lose context (A8).

Others take issue with control for its potential to hinder accessibility. In the following statement, a senior curator (C4) promotes free and unhindered access to the materials online:

The ease of access that the new information technology affords is really a great boom at an intellectual level. And so I would argue that ... in terms of a virtual reunification to make eventually the whole body of material, regardless of where it's housed ... to make it all available on the web ... I

think it's really up to the individual researcher to make a judgment. There are clearly a number of images that are objectionable from certain perspectives. There are clearly a number of images in there that have sexual content ... But I think that's really all up to the individual researcher to decide what the meaning of any one image and so on (C4).

The statement reveals how control issues are relevant in carrying out virtual reunification. Control is a strategy that institutions implement to encourage correct attribution and to mediate access and interpretation. In reunifying the Worcester images, institutions will have to find a way to balance these strategies without discouraging access while simultaneously sharing appropriate levels of mediation.

### *Levels of Access*

Respondents had two notions of access when considering virtual access to the Worcester collection. The first level of access is open and unhindered access. This is regarded by most respondents as the level of access best suited for all owning institutions and for pre-identified members of source communities are also be given this level access. The second is limited access where only select images may be seen while the rest of the collection are hidden and accessible only via their descriptive metadata. This level of access is considered appropriate for all other user types, but it is viewed as especially suited for the general public. The following statement by a collections manager captures the ongoing sentiment about access:

There were some images that we weren't going to put up on a CD or online and most of those were some of the less desirable photos of women especially without clothes. We were to put the [meta]data up there, but we weren't going to [upload] the actual images. If people wanted to see them for research purposes or specific good reasons, we would potentially send them those images but they wouldn't just be available (CM2).

Some institutional respondents (A2, A5, A8, C1, C5, and CM 2) consider certain images to be inappropriate for general public viewing. They argue that facilitating



indiscriminate access to such materials is irresponsible without appropriate permission from source communities. As one archivist puts it:

I think you really just might put yourself in the shoes of the person that could be related to that person and you ask yourself, "Would I be happy to have my grandma's picture in such a way on the Internet?" I think that's really simply what it is for me (A5).

Images of nudity and performance of religious rituals inspire the most objections for the possibility of being put online. The ethnographic nature of images opens up issues that can be understood differently depending on how they are perceived. Not allowing online access to certain images might be deemed either as an exercise of sensitivity and respect on one hand or control and censorship on the other.

#### **4.2.3. Implications: Images and Their User Groups**

In this section, I discussed interrelated issues regarding concerns about the amount and nature of material to make available through a virtual reunification project, the major groups of users who would be expected to make use of the product, and the challenges for maintaining appropriate levels of material and metadata control over the items. From this discussion, two notions of access arise whenever institutions talk about virtual access to the Worcester collection. At one extreme is unhindered and freely available online access for images for anyone with an Internet connection. At another, institutions maintain a more traditional, closed level of access for their materials that may be limited to internal institutional work and return of materials to source communities.

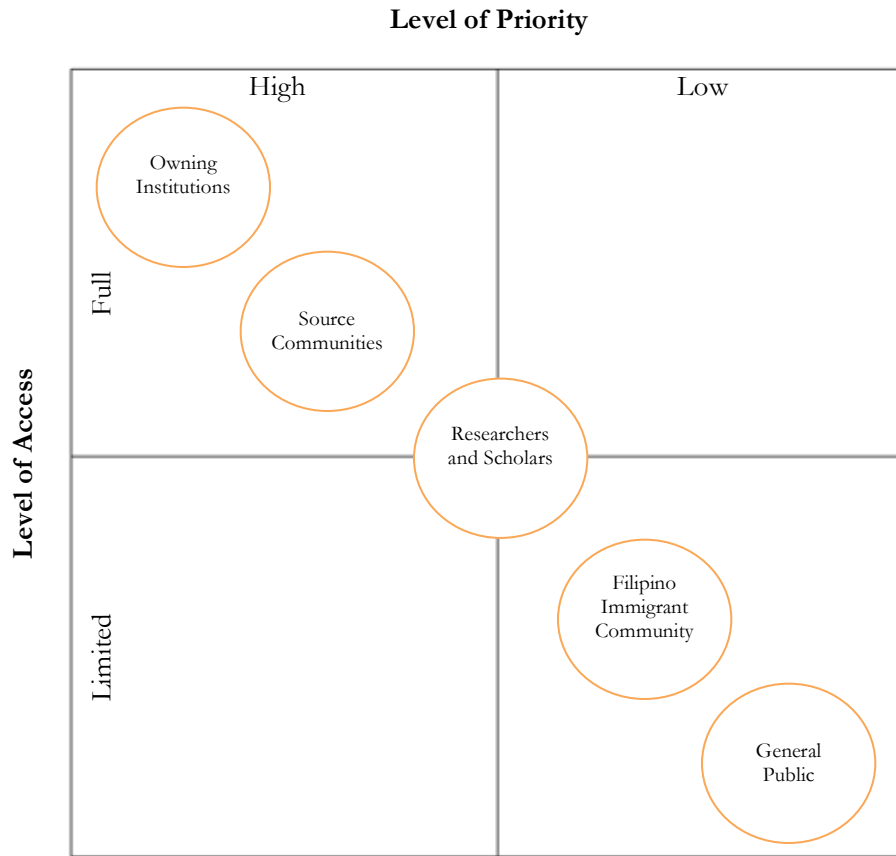
There are two ways to restrict access: 1) restricting the individuals or types of people who can be trusted to access the collection; and 2) restricting the images (based on their content) that users may access. These two approaches are used simultaneously to determine who should have access to what. Interview respondents consider the levels of control and

enforcement of access restrictions as necessary mechanisms that reflect the realities that there are limits of what can be shown.

Figure 4.4 shows the five user groups identified from interview data and situates their relative positions in terms of respondents' identified levels of access. The graph organizes these groups in terms of their perceived level of priority and the level of access. Priority groups are those directly involved in pursuing virtual reunification. Groups under this category contribute the most in achieving institutional functions associated with the process of reunification, i.e., description, collections management, repatriation, digitization and access. Institutional respondents and researchers indicate the necessity of controlling access to the images given their sensitive subject and content. This study finds that providing online access to the Worcester images involves matching certain user groups (owning institutions, source communities, researchers and scholars, Filipino immigrants communities, and the general public) with their corresponding access needs. Access needs will largely be based on heritage professionals' and administrators' understanding of what each user group needs to see (or know). Provision of access is also a response to a sense of obligation on the part of heritage workers to provide access to source communities.

From the analysis of data, I found that decisions around controlling access can be a potential source of tension among participating owning institutions. Heritage professionals and administrators will have to negotiate and arrive at a consensus not only with each other but also with source communities on how to balance free and open access with sensitivity concerns. This tension reflects their lack of understanding of the access needs and requirements of Philippine source communities. In spite of placing high priority on providing the source community with access to the images, heritage professionals and

administrators show a lack of confidence in their ability to representing indigenous groups online who are unfamiliar and inaccessible to them.



**Figure 4.4.** User Access and Priorities

The role of virtual reunification in reconnecting the images in institutions with source communities needs to be addressed further. In this respect, respondents are faced with a conundrum. Is the resulting product of virtual reunification a prerequisite to reconnecting with source communities? Or does reconnecting with source communities happen prior to any assembly of online product? Prior to moving forward, owning institutions will need to address these issues regarding the extent to which they want to resolve these repatriation questions. Foremost, they need to resolve whether or not virtual reunification is at all about repatriation.

### 4.3. NOVELTY AND VALUE: FUNDING FOR VIRTUAL REUNIFICATION

So far, this chapter considered the perspectives of owning institutions and researchers regarding the purpose, function, and audience of online reunification. The literature on reunification also points to funding agencies as among the catalysts for virtual reunification.<sup>21</sup> Heritage professionals and administrators interviewed also emphasize the importance of funding support:

If you're doing a virtual project, obviously, they need to be digital ... How far do we go? I don't know that the answer is, "Oh, digitize everything." I think you need to say, "Let's be prudent and let's figure out which images already have digitals." It's just a question because digitizing is expensive and time consuming and *there needs to be funding and we don't really have any* (A2, emphasis added).

This final section presents insights on planning for the Worcester virtual reunification by analyzing views of funders. Examining the perspectives of funding institutions contributes a fuller understanding of the factors that influence pre-reunification decisions.

I isolated several themes arising from interviews with representatives of four major funding institutions. Funding institutions differ in their relative sizes, priorities, and missions. What they have in common is their previous record of funding and supporting projects around digitization and online access to collections. While fundable projects must directly respond to the respective missions and priorities of the particular funding agency where financial support is solicited, interview data reveal that funding institutions emphasize novelty and innovation above all as a fundable feature of online reunification. However,

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<sup>21</sup> Anne Marie Austenfeld, "Virtual Reunification as the Future of 'Codices Dispersi': Practices and Standards Developed by e-codices—Virtual Manuscript Library of Switzerland," *IFLA* 36(2) (2010): p. 145-154 and Helen Shenton, "Virtual Reunification, Virtual Preservation and Enhanced Conservation," *Alexandria* 21(2) (2009): p. 33-45.

these respondents provided multiple avenues for demonstrating novelty and innovation. The sections below unpack these ideas.

#### **4.3.1. Going Beyond Consolidation and Integration**

Funders, similar to owning institutions, saw online reunification as means to an end, and not an end in itself. This theme suggests another illustration of the process and product dynamic (illustrated in Figure 2.2). The benefits of innovation and collections processing accrue to owning institutions and funders throughout the development process. For funders, the crux of the matter is how well repositories can articulate the specific outcomes that would result from gathering together the various pieces of the dispersed Worcester collection. For one respondent, the fundamental question to answer is:

To what end and why is it important that we do this and why is [institution's name] funding essential to that (F1)?

Thus, a measure of fundability is the ability to justify that reunification goes beyond the consolidation or integration of images; it is more about what such process would ultimately achieve. As one respondent clarifies, digital projects need to achieve “dissemination beyond simply the notion of putting it online and letting the discovery happen” (F2).

Funding institutions want to support innovative projects that harness the potential of significant collections. In the case of the dispersed Worcester images, innovation may come from various facets of virtual reunification. Innovation could be demonstrated in terms of bringing the practice of printed scholarly editions into the digital realm. It could also showcase the implementation of new descriptive approaches and standards as well as the creation of new visualization tools. Lastly, innovation can also occur in the realm of the unprecedented partnerships and collaboration that would be formed in the process.

I have identified characteristics of virtual reunification that funders indicated must be articulated by applicants in order for the Worcester collection to be considered a suitable candidate for funding support. These characteristics fall into three major themes:

- Defining the goals of reunification as going beyond consolidation and integration
- Describing the importance of content and the novelty of the process
- Developing new partnerships and collaboration

Thus, funders expect a proposed reunification project to demonstrate why virtual reunification is the best mode of delivering the images to a variety of users. Respondents from funding institutions emphasize the importance of establishing how the integrated collection will enable new discoveries and facilitate the formulation of new perspectives on a particular area or discipline. Applicants for funding must also to determine how virtual reunification contributes to innovation by describing how it develops new processes, creates new tools, and engenders new expertise. Finally, proposals must also show how venturing into the project will create unprecedented partnerships and collaborations among all institutions involved.

#### **4.3.2. Demonstrating Significance**

A second theme for funders is the demonstration of significance. As one funding respondent states: “We’re really looking for the importance of the records and the uniqueness of them” (F4). Three major ways of demonstrating significance emerge from the data: growing interest, creative use, convenience and access.

### *Growing Interest*

Identifying the users who will benefit from providing integrated online access to the Worcester collections plays a key role in this characterizing interest. One respondent further articulates how value can be demonstrated for the likely use of the sources that are being proposed for reunification:

Those that are most likely to succeed are the applicants who can go beyond making the claim of significance ... to show evidence of previous interest by researchers in various domains and sectors in society, either through examples of ways that materials have been used, or as part of the letters of support, and on other indices that they provide. So, evidence that this material has a base of interest ... and that in the likelihood is that, once digitized and made freely available online, will only expand ... exponentially (F2).

### *Creative Use*

Representatives of funding agencies, however, clarify that demonstrating the importance of the collection need not be equated with the number of times the collection has generated research requests. That is but one consideration. More emphasis is placed on the potential of generating new and creative uses of the collection to diverse audiences, as F1 points out:

Even fairly small set of interest, but if you can give me five kinds of uses that that affects multiple communities and multiple layers of use and benefit, then, it becomes more attractive (F1).

### *Access*

While characterizing the uses and potential users of the reunified collection can be sufficient, funding agencies also emphasize the importance of generating third party support that speaks to the value of having access to an integrated product versus a dispersed collection. One respondent noted virtual reunification's capacity to balance institutional concerns with wider user access as an appealing aspect:

I think it's just inherently exciting to think about materials that have been dispersed for whatever reason to be able to be brought together in a virtual environment ... It satisfies the need of those who are custodians of the originals to maintain the custodial stewardship status of the originals. But at the same time bring together those things that have been separated once again together ... That's a great public benefit ... You can't get better than that ... in terms of not just convenience, but not making people geographically have to travel or hunt and peck on the internet all over the place to try and find things, but to really pull those things together (F4).

Funding support for digitization seems to be always made with the condition of public dissemination. However, the product of digitization is not necessarily expected to end up with broad, unfiltered access. As in the case of ethnographic collections with sensitive content, funding agencies will take into account certain restrictions based on sensitivity or privacy issues:

As a mode you could say an expressed preference [is given] for projects in cases involving digitization where the outcome is free and open access online. So, that's a critical criterion for us. We don't make that as a mandatory criterion, but it is something that's expressed as a very strong preference. So, in some cases, some might argue that that goes hand in glove with digitization, but we know of many instances where that's not the case. And where there are questions with respect to intellectual privacy or property, or other privacy concerns, and access descriptions, those do weigh on the decision making process (F2).

#### **4.3.3. Highlighting the Novelty of Processes and Tools**

A third area arising from funder interview data is the novelty of the processes developed and used to create the final product. Innovative process and tools can demonstrate broader expansion of digital research tools and online access. In virtual reunification, this may take the form of editions, descriptive and analysis tools, and visualization options. For example, as one respondent noted, institutions must devote some thinking around the balance between the value of the Worcester images with the novelty of the process and tools employed in bringing the collections together:



It's not enough [that the materials are] interesting and important. But also you can't just be innovative and not have the really important stuff. So, they have to go hand and hand (F3).

Representatives of funding institutions suggest some avenues where a case for innovation can be made. First is in the area of *scholarly editions*. Given the long tradition of historical editing and critical editions, the reunification of dispersed collections alone is not regarded as an entirely new concept. However, an argument could be made that the new capacities afforded through digitization and online tools can potentially replace the more traditional efforts of consolidating dispersed collections. As F1 illustrates:

So what you could argue in a grant proposal to us is you are removing yourself from the model of *catalogue raisonné* and historical editing to think about a different way of fulfilling the same kinds of requirements and meet the same kind of needs but taking greater advantage of the capabilities of new media (F3).

Historical and critical editions have largely focused on reintegrating textual collections. Hence, another potential for innovation in a scholarly edition is the focus on photographic collections. For funders, the reunification of the Worcester images could contribute by developing a model for other ethnographic visual resources that are similarly dispersed.

Another area where reunification could provide new and fresh approaches is in *archival description*. Building a platform where collaborative description among institutions can be facilitated can be useful but may not be completely new as a concept. However, as one interviewee suggests, creating a collaborative system that accounts for duplicate copies using an online descriptive platform might be a fresh approach. The fact that there are duplicate copies of the photographs in different places is important to the history of the collection, and that is something that needs to be represented in descriptive practices. According to one respondent:

What you are doing is not just digitizing individual copies where they might lie to create one complete set. But you are seeking to tell a well-rounded story of the distribution of these materials ... That you want to support duplication. And there is an intellectual reason behind the duplication so that might call for a different way of describing the materials that we usually have done in other kinds of library descriptive catalog. And so that is innovative. Because most places would say, "We're just trying to get one copy of each image and bring them together." But it's important and you would argue it's important to the story of the collection (F3).

A third area for tool innovation includes *analysis and visualization tools*. Here, one respondent noted that the new media has “the ability to represent change and variation, and that you can have multiple versions” (F1). Thus, the capacity for exploring other possible ways of representing and providing access to the collection is also enough justification:

We are open to the proposals that can make a case for new or different types of approaches, or that involve in some cases some investigation of different kinds of approaches ... If a strong case is made to explore different opportunities or different ways of presenting sources beyond something that's strictly conventional (F2).

For another, the potential of creating a tool or process that would facilitate visualization and comparison of images and that can consequently be emulated by all kinds of photographic collections would suffice as innovation.

You can imagine all sorts of visualizations of that process in geographic visualization, timeline visualization, just straight linking and so on (F1).

Here, the reunification of the Worcester collection can be best portrayed as potential model for representing similar collections. Thus,

You'd have to come up with an innovative way that's either more effective, or more efficient, and preferably both to get funding. And you have to document it and share the tools and the processes out of it with others, and demonstrate that the project is going to do that. And that would be much more likely to be fundable (F3).

In sum, virtual reunification projects may demonstrate innovation in a number of areas: recasting the printed scholarly edition, implementing new descriptive approaches and standards, and creating new visualization tools.

#### 4.3.4. Building Relationships

A final area that emerged as important for funders was partnership with source communities and inter-institutional collaboration. Aside from innovation in terms of processes and tools, funders also highlight the need to justify innovation in terms of creating new alliances and partnerships. Respondents noted their interest in how the reunification of the Worcester collection could become another example of collaboration among institutionally divergent repositories of libraries, archives and museums. Here, a respondent acknowledges the difficulty for repositories to come together due to their differences in managing and organizing their respective collections:

What do you get from this collaboration that's different and new or more than the sum of the parts that you already you think you had already ... We do know that libraries, archives, and museums all have separate systems. They have similar objects and it's not always an easy way for related materials in those institutions to come together (F3).

The involvement of various source communities in developing a strategy for digital repatriation and the creation of a platform for “returning” images can potentially be facilitated to achieve one of the stated institutional goals of reunification. Thus, partnering with source communities is another area for collaboration. This type of involvement is notably difficult and contentious, but can lead to fruitful compromises and even mutual understandings. In the following statement, a respondent relates an instance where digitization opened up dialogues between a repository and members of a Native American community:

[One institution] that did this ... had a very sensitive approach to these questions and they involved the community, the tribal community in the discussion. And their response to that kind of question of “just destroy it” was, “But don't you see that there is a value to teaching others about the traditions of this tribe and that this is for scholarly research and study?” And what that imposed was an obligation on the [institution] then to be very careful about how they made the digital version accessible. That it's not just a matter of copyright and intellectual property, there is also these ethical issues

that the recordings were made for the private study ... Well, it's a privacy that's implied in making it. Even the technology didn't lend itself to being widely dispersed and made widely accessible. We see ourselves to contend with that all the time, is the displaying objects. But, in this case, the digital really opens that question up. It magnifies the issue that it's not made necessarily for private study. It's made for wide dispersal. So they change their access procedures as a result of these conversations and said, "Yeah, you're right. This should be for private study of interested people with particular scholarly interest and not for wide dissemination and that kind of exploitation of material." And I thought that was kind of sensitive approach. It's not maybe the best but maybe it didn't satisfy every interest but, at least, they had an idea that this was something that was a complicated question and no one party could decide because there were multiple interest in (F1).

Funders see scholarly and historical editors as holding a vital role in the process of consolidation. In this, they consider the possible involvement of a scholar who fulfills the role of an editor. Funders see the editor as taking on the role of coordinating and consulting with owning institutions as well as providing expert advice on the cultural and historical contexts of the images. Funders regard the editor as someone with a comparative view of the various pieces of the collection whose expertise is considered essential to the process. One respondent explains the role of the editor in virtual reunification:

A scholarly edition is kind of par excellence the reunification of material that was once the product of an individual or a group or an organization and it's almost always dispersed in a variety of places. The editor goes about the process of collecting copies, going over those and then transcribing them or printing them on so that others can see a line of correspondence for example, and you can tell then a story about a person's life by having those papers together rather than in sort of traveling all over the place. And that may in fact be the most analogous with the photographic reunification in that you would tell visual story as opposed to some kind of documentary ... And the editor had actually better information about a lot of the documents than the libraries had because he had authenticated the authors, in many cases had identify the dates that may have been in question, by comparing and contrasting them with material from other places, and had been able to assemble chronology (F3).

Collaboration in virtual reunification constitutes several key partnerships and alliances. In addition, creating links among owning institutions, it will also involve source communities as well as researchers and scholars. Engaging several actors in the process

creates the kind of collaboration that funding agencies consider as both unprecedented and innovative.

#### **4.3.5. Implications: Supporting Innovation and Partnership**

Interview data from representatives of funding agencies suggest that these institutions are highly interested in and motivated by the idea of innovation. As one stated,

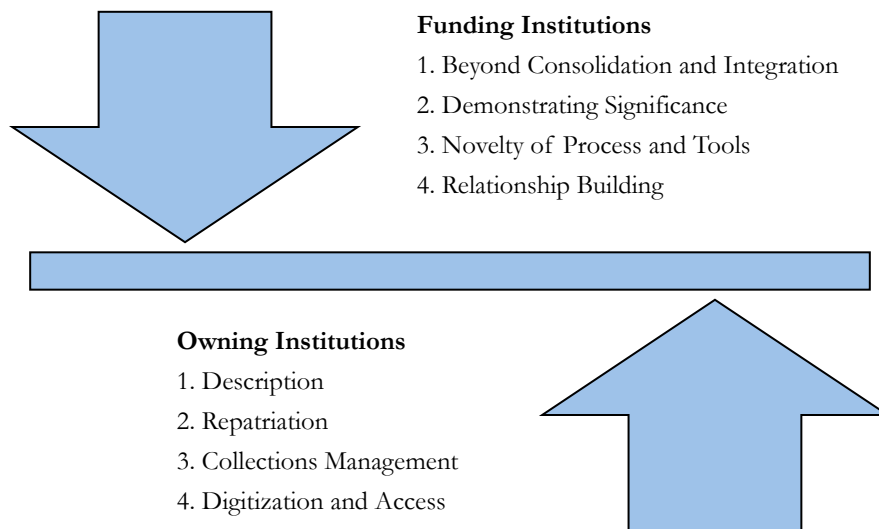
I think for all of us, any proposal that comes up with a better way to skin a cat, as the saying goes, within the context of their proposal and materials that they want to deal with, that's always very attractive to any funder, private or governmental, because a part of grant-making is when you work on our side of it is that you're risking (F4).

As this section shows, funding agencies are interested in supporting projects that can provide innovative, novel, or otherwise new ways of doing digital projects. For virtual reunification projects, innovation can take a variety of forms, which include innovation in descriptive standards, new ways of representing and joining collections online, the promise of using multimedia materials (particularly images as in the case of Worcester), offering new modes of collaboration between institutions, and offering users new modes of access.

As this study's literature review (chapter 2) indicated, funding agencies influence the purpose and product of digitization. Decisions involving online reunification will require responses to the goals, priorities, and conditions set by potential sources of funding support.

This study finds that, at present, heritage institutions and funding agencies describe virtual reunification in different ways. Figure 4.5 illustrates these two perspectives. While funders expect reunification to be about novelty and innovation, owning repositories (as discussed in Section 4.1 of this chapter) see the process as a way of accomplishing priority functions responding to the difficulties of managing and representing complicated format and sensitive content. These two visions are not mutually exclusive, but they challenge

heritage repositories to re-articulate their vision to meet the goals and expectations of funding institutions. Virtual reunification decision-making then becomes not only about meeting the needs of owning institutions and potential users of the Worcester collections. As the illustration suggests, the shape of virtual reunification of the Worcester collections will result from negotiation balance between funding agencies' and owning institutions' visions of how and why virtual reunification will proceed.



**Figure 4.5.** Balance Between Funders and Owning Institutions

#### 4.4. CONCLUSION

This chapter presented perspectives on motivations, product, and innovation. I underscored the multiple ways that respondents articulate their meaning. I identified the following tensions emergent from interview data:

- Diverse notions of purpose and motivation that inspire heritage workers to pursue virtual reunification that implies the process can mean many things to many people depending on institutional functions and priorities

- Various desires to achieve multiple institutional processes and functions (description, collections management, repatriation, digitization and access) at once
- Multiple conceptions of audience and appropriate access controls for certain categories of users
- Tensions on what virtual reunification can do between funding agencies and funding institutions

While a reunified product is often thought to be the primary output of reunification, processes and outcomes present similarly high priorities for institutions. The integrated whole can only be valuable if it allows institutions to achieve several ends at once. The online product then becomes a marker that signifies institutional accomplishments. Online products are the culmination of these achievements. The creation of an online reunified product enables owning institutions to work towards accomplishing processing, description and access targets and goals. In this case, these attendant prerequisites to creating an online reunified product are more appealing for heritage workers than the product itself.

This chapter illustrates two divergent interpretations of reunification as a strategy. First, that it is a strategy that institutions use with the ultimate aim of providing greater access for a dispersed and partly hidden set of image collections. In this sense, reunification is mainly about users and access to collections. Second, institutional respondents see reunification primarily as a strategy of dealing with institutional backlog. In other words, virtual reunification offers a mechanism to consolidate metadata and other information related to an under-processed collection. In this view, access becomes secondary to the process, and the benefits to users are subsidiary to the accomplishment of other institutional tasks.

My analysis of interview data shows existing insecurity among institutional respondents to handle images with sensitive cultural content to be a major challenge to virtual reunification. At the same time, a more participatory platform brings the promise of involving source communities in a way that could fill this knowledge gap. In addition, reunification will serve institutional stakeholders more than outside users, in part because of the lack of large, definable user groups. Respondents from owning institutions will likely participate in cooperative virtual reunification if the process will first meet internal ends or achieve local goals and priorities.

I have isolated a number of motivations that influence institutional interest in virtual reunification. While owning institutions highlight virtual reunification as a strategy that can facilitate institutional work, funders see online reunification for its novelty and potential to create new collaborative partnerships. Although the concerns and user groups noted above in section 2 will benefit from the product of online reunification, this study suggests that virtual reunification products can be positive outcomes of internal institutional work carried out in improving collections control and metadata as well as the use of digitization to reformat images. This chapter has demonstrated this point using data gathered in interviews with archivists and collections managers, researchers and community members interested in the collection, and finally through the words of representatives of funding agencies.



## CHAPTER 5

### VIRTUAL REUNIFICATION: DISPERSION, VALUE, AND EXPERTISE

I think [virtual reunification is] a great idea. We certainly have the right technology. If this were twenty years ago, I would be saying, "Oh, I don't think it will ever ... Nope, it's not going to work." With enough technology thrown at it, it's going to be a lot easier to virtually reunify the Worcester photos (A3).

As A3 suggests, there is a high level enthusiasm for virtual reunification. The remarks also open up many major themes of this chapter and express a common sentiment of respondent archivists about virtual reunification: it is a way of using technology to solve the challenges associated with dispersed collections. The quote conveys this in two ways. First, the speaker reveals a sense of optimism about technology as a purveyor of solutions. Second, it relates a temporal shift in the development of technology for reunification: the project's perceived impossibility twenty years ago and its potential for the present. Although technology figures prominently in addressing the many concerns of reunification, the challenges of reunification are not just technical in nature.

As this chapter lays out, the most profound issues surrounding reunification are not those that require sophisticated technical solutions. My analysis shows that the challenges are more social than technical, and this in turn requires assessment of institutional values and articulations of concerns. Efforts made to trace and provide integrated access to the various Worcester images were first contemplated more than twenty years ago. Some of the challenges then are almost the same as they are now. In fact, many challenges surround basic museum and archives functions like provenance, appraisal, custody, and description.

This chapter also identifies areas where perspectives differ among respondents from owning institutions, consciously or unconsciously, in discussions of virtual reunification. These issues are organized into three main categories. First is the challenge of capturing the story and nature of dispersion. In accomplishing this primary task, institutions will be confronted with several dimensions of the dispersion narrative that may overwhelm their progress. However, they may also provide inspiration for institutions to come together in order to consolidate the various dimensions of the narrative and agree on a common object, or objects, of reunification. The second category is the relative notion of value and significance around the collection. The way value and significance are assessed can potentially impact the goals and mission of reunification. Expertise presents a third category of challenge, particularly around knowledge domain and lack of familiarity with cultural sensitivity issues.

To illustrate these points, this chapter presents various barriers that informants discussed when asked about challenges to reunify the Worcester images. All concerns discussed here center on varying perspectives about the articulation of value and significance, values that define what the images mean to institutions, and how particular notions of importance are ascribed to the collection. Before each institution commits to a virtual reunification project and prior to allocating resources on such an endeavor, they must first reach consensus on key areas of pre-unification concerns. This sort of consensus is underscored in inter-institutional collaboration literature, which emphasizes the importance of common understanding and definition of the problem.<sup>1</sup>

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<sup>1</sup> Nelson Philips, Thomas B. Lawrence, and Cynthia Hardy, "Inter-Organizational Collaboration and the Dynamics of Institutional Fields," *Journal of Management Studies* 37(1) (January 2000): p. 22-43; Eva-Maria Kern and Wolfgang Kersten, "Framework for Internet-Supported Inter-Organizational Product Development Collaboration," *Journal of Enterprise Information Management* (20)5 (2007): p. 562-677; and Judith S. Olson, et al., "A Theory of Remote Scientific Collaboration," In Gary M. Olson, Ann Zimmerman and Nathan Bos, eds., *Scientific Collaboration on the Internet* (Cambridge: MIT Press, 2008): p. 73-97.

## 5.1. STORY AND NATURE OF DISPERSION

The many paths of the Worcester images' dispersion are preconditions that shape virtual reunification. This study finds that capturing the dispersion narrative figures as an important and unifying thread to capture a sense of wholeness and completeness. As indicated in Chapter 4, respondents from both owning institutions and researchers describe reunification as a process that starts and ends with the story of dispersion. Understanding the dispersion narrative is among the primary goals of reunification. It also defines the various elements that may help in representing the whole.

The story of dispersion, however, is neither simple nor straightforward. This section untangles the complex and layered dispersion narrative by detailing the dimensions of dispersion. The section concludes by describing why the complex and layered paths of dispersion constitute a barrier to reunification.

This study identifies four ways of framing the dispersion narrative: geographical, historical, provenancial, and material (see Figure 5.1). These various dimensions not only complicate the construction of a single unified dispersion narrative, they also explain why the Worcester images have remained hidden and challenging to discover. These layered dimensions of dispersion complicate efforts at reunification. Given the variety of elements and dimensions in the dispersion narrative, institutions face challenges to reach a consensus on how to present elements of the dispersion story necessary to form a sense of the whole for the various Worcester collections.

Provenancial	Temporal
Material	Geographical

**Figure 5.1.** Four Approaches to Dispersion

The following statement from a researcher illustrates the results of the complex paths of dispersion, and serves as a good example of its consequences for current and potential users:

At one point I came across a reference to Worcester photographs at the Newberry Library ... When I got to the Newberry, I realized that those photographs [at the Field Museum] weren't the original edition of print that Dean Worcester had sold to Edward Ayer. And I was surprised that the people at the Newberry had no idea of Michigan's collection and I was surprised that the people at Michigan had no idea of the Newberry collection because they seemed to be the two main archives of these images. And as far as the University of Pennsylvania goes, the website archive.org has a film on it that is a film made by Dean Worcester and Charles Martin called "Native Life in the Philippines." ... I thought I would just sort of send an email to University of Pennsylvania and ask them questions about it, ask if there are any other films or any photographs. And then, they told me that yes, indeed, they did have the photographs. And then I found my way to the collection at the Peabody Museum in Harvard. I'm actually traveling out there in March to take a look. Based, again, on Google Books (R1).

This researcher reveals the multidimensional aspect of dispersion. Likewise, when describing the story of dispersion, respondents from owning institutions illustrate several dimensions of *dispersion stories*. At this juncture it is important to emphasize the plurality of the story of dispersion since respondents regard their respective sets of images as representing one story of dispersion that can be incorporated in a much larger, consolidated dispersion narrative.

### 5.1.1. Geographic Dispersion: Where the Images are Located

The most obvious aspect of dispersion is *geographic*. Figure 5.2 shows the geographic dispersion of the Worcester images at various locations in the United States and Germany included in this study.



NO.	LOCATION	INSTITUTION
1 – 3	Ann Arbor, Michigan	U. of Michigan: Bentley Historical Library, Museum of Anthropology, and Special Collections Library
4 – 5	Chicago, Illinois	Field Museum of Natural History and the Newberry Library
6	Suitland, Maryland	National Anthropological Archives
7	Philadelphia, Pennsylvania	U. of Pennsylvania Museum of Archaeology and Anthropology
8	New York, New York	American Museum of Natural History
9	Cambridge, Massachusetts	Peabody Museum of Archaeology and Ethnology
10	Cologne, Germany	Rautenstrauch-Joest Museum

**Figure 5.2.** Geographic Dispersion

While it is highly possible that there are more institutions that possess Worcester images, I focus on collections located in ten institutions in the United States and one German repository. Only a small number of researchers and institutions are aware of all the places where the images are known to reside. Even respondents in owning institutions themselves were not aware that they hold Worcester images in their collections. There have been efforts since the 1970's to trace the location of the Worcester images, but it is only recently that some repositories became aware of other possible sites. The various locations of the images gradually became known over time out of several efforts to conserve, provide access, and study the images.

Research for this study identified three projects that were instrumental in the discovery of the locations of the Worcester images. The University of Michigan Museum of Anthropology (UMMA) initiated two of these. The first was in the late 1970's, which consequently led to the identification of a few other sites. Second, UMMA produced and disseminated a CD-ROM in the late 1990's that contained a large sampling of the images scanned from the UMMA negatives. This CD is credited with bringing the images to wider audiences, including other institutions unaware of their own Worcester collection. The third was the more recent efforts at uploading the images online by institutions, such as the University of Pennsylvania Museum of Archaeology and Anthropology, the University of Michigan Special Collections Library, the Smithsonian's National Anthropological Archives, the Field Museum, and UMMA.

### *Efforts in the Late 1970's*

The first project came from a desire to conserve and further study the over 4,000 negatives at UMMA. A former UMMA curator recalls how very little information was

known about the negatives and museum administrators had tepid appreciation of their role and function:

[When] I came to the university, I was told that the museum had one or two crates full of glass negatives by Dean Worcester which the museum had come into possession of or acquired several decades earlier and which were stored and nobody knew what to do with it. And it was suggested to me that I might want to take an interest in those negatives and see what their value was and to what degree they should be preserved for the future. (C4)

It was, however, the concern over their physical condition that brought attention to the negatives:

What inspired me was the fact that clearly the images had been poorly stored. Many of them were degrading, the emulsion was peeling off the glass plates. Many of the glass plates were damaged by mold and fungus and so forth and discolored. And so, the purpose was to really do a conservation project. To first of all make images... Secondary images of each one of the plates as much as possible and then rehouse the plates and build an archival sleeves and so forth. That was the primary purpose. (C4)

The curator was also curious about the negative plates not found in the UMMA the collection:

I knew from the research I did, that Worcester truly had set out, as Secretary of the Interior of the Insular Government ... to do a comprehensive photographic survey of the Islands, of the cultures of the Islands, of the tribes ... There was originally a pool of some large number of photographs of which only a portion were in the holdings of Michigan. And even the numbering of the plates indicates that there had been many more before. And I was always puzzled where the rest was. (C4)

Preservation concerns and the desire to account for gaps in the collection joined in this earliest effort to trace the other locations of the Worcester images. From 1977 to 1980, UMMA conducted a project facilitated through funding support by the National Endowment for the Humanities (NEH) with goals to preserve and pursue further research on the history of the images. In his grant letter request to the NEH, then UMMA curator

Karl L. Hutterer asserted, “It is conceivable that other bits and pieces are hidden away in other institutions.”<sup>2</sup>

By the end of the project, Hutterer identified four other locations, namely the Field Museum of Natural History in Chicago, the Peabody Museum of Archaeology and Ethnology at Harvard University, the Rautenstrauch-Joest Museum in Cologne, Germany and the Anthropological Archives of the U.S. National Museum (now the National Anthropological Archives of the Smithsonian Institution). The most recent update in the finding aid at the University of Michigan’s Bentley Historical Library, where a significant volume of the Worcester papers are kept, traces several other Worcester papers and images found in different institutions. The Bentley Historical Library now identifies eight other repositories.<sup>3</sup> These institutions are University of Michigan Museum of Anthropology, University of Michigan Special Collections Library, Thetford Historical Society,<sup>4</sup> the Field Museum, the National Anthropological Archives, American Museum of Natural History, Harvard University’s Peabody Museum, and finally, Rautenstrauch-Joest Museum.

### *Production of the CD-ROM in the 1990’s*

The second project noted is the early digitization efforts that led to the publication in 1998 of select images in a CD-ROM edition UMMA titled *Imperial Imaginings: The Dean C. Worcester Photographic Collection of the Philippines, 1890-1913*. UMMA undertook this project from 1996 to 1998. This coincided with the years of the Philippine centennial commemorations, which marked the Philippine revolution of 1896 followed by the country’s independence in 1898, and the ensuing commencement of the U.S. annexation of the

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<sup>2</sup> Karl Hutterer to NEH, April 26, 1976, University of Michigan Museum of Anthropology.

<sup>3</sup> Finding Aid, Dean C. Worcester Papers, Bentley Historical Library, University of Michigan (Available <http://quod.lib.umich.edu/b/bhlead/umich-bhl-86354?rgn=main;view=text>, Accessed September 29, 2012).

<sup>4</sup> This institution has Worcester’s family papers and manuscripts. The historical society does not have copies of Worcester’s ethnographic photographs.



islands.<sup>5</sup> A current UMMA curator explains how the commemorative atmosphere, coupled with a record of research interests and preservation concerns, became the main motivations to digitize the negatives:

We started on the digitization project in probably 1996 or thereabouts and that was leading up to the 1998 Centennial which was being celebrated pretty widely by Philippine-Americans. There was an organization of Philippine-Americans who wanted to celebrate the brief period of Philippine independence before the US, after Spain was kicked out and before the US came in, and I was approached by a national representative from a national organization that was trying to celebrate the Centennial about doing an exhibition on the Philippines ... And that got me also thinking about the Worcester collection and its potential ... of the Asian collections, the Worcester collection was and still is the one that gets the most requests for images, the most queries about it and so on. So, it was clear to me that there was an interest in that. And our museum publication program had just launched into trying to do some digital publication. So, all those things kind of came together to get me thinking about digitizing the collection or at least a sample of them at that point. And the other concern was really conservation. The negatives we have did make backup film negatives of the glass negatives. But the glass negatives are getting old, and many of them are not in the best of shape, so digitizing them is a way to conserve the images for the future as well (C1).

The curator also credits the distribution of the images in the CD-ROM in 1998 with making the collection more discoverable to a much wider audience. In this quote, the curator emphasizes reproduction requests coming from Philippine museums, authors, and enthusiasts:

In the '90s both the digitization and the publication of the collection got the collection out to more people. One of the things that happened quite a lot since that CD was published is at least once or twice a year I get requests from regional Philippine museums who want to use photos in their exhibitions or from Philippine authors. It has made the collection much better known to scholars, and not just scholars, but tattoo artists and all kinds of people who are using that collection. So, I think the getting-it-out-there was probably most important (C1).

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<sup>5</sup> Ricardo L. Punzalan, "Archives of the New Possession: Spanish Colonial Records and the American Creation of a 'National' Archives for the Philippines," *Archival Science* 6(3-4) (2006): p. 381-392.

“Getting-it-out-there” also meant that other repositories acquiring the published CD’s became aware of the Worcester images in their own collection. Respondents from other owning institutions admitted that the CD was instrumental in their own realization that the Philippine images they held were in fact by Worcester. In one of my site visits, a reference librarian from the Newberry Library claimed that UMMA’s published CD was routinely used as a tool to discover and provide access to the prints in their repository. The reference librarian noted how the CD was easier to use, especially when providing routine introduction and overview of the 4,000 prints in their holdings. Curiously, however, the Newberry Library did not notify UMMA, or other institutions for that matter, of the presence of the Worcester images in its holdings. Meanwhile, UMMA was completely unaware of the other’s collection until recently.

### *Online Discovery in the 2000’s*

A third important stage in the identification of other locations was the availability of Worcester information online. In recent years, some repositories started to provide online access to their image holdings and their accompanying metadata. The researchers were better able to discover the Worcester photographs. The important role of the researcher in identifying the various locations of the Worcester images should be emphasized. In this quote, one academic researcher attributes his multiple discoveries of various sites from conducting Google searches:

[I] was using Google and looking on Dean Worcester photographs, as many different search terms as I could come up with. And not just being satisfied with the first page of hits, but actually scrolling through and getting farther and farther in (R1).

Few institutions have made their images, let alone their metadata, accessible online.

An interesting story of re-discovery is that of the Worcester films at the University

Pennsylvania Museum of Archaeology and Anthropology. Through an arrangement between the Museum and the Internet Archive in 2006, a digitization effort was made on the Museum's collection of unknown films. This led to a researcher's discovery of the surviving film stocks of Worcester's "Native Life in the Philippines" (1913), a work believed to have been lost. The re-discovery of the film further prompted the discovery of other Worcester images housed in the same museum:

As far as the University of Pennsylvania goes, the website archive.org has a film on it that is a film made by Dean Worcester and Charles Martin called "Native Life in the Philippines." And so, that's fully online now. I was watching it on archive.org and I thought I would just sort of send an email to University of Pennsylvania and ask them questions about it, ask if there are any other films or any photographs. And then, they told me that yes, indeed, they did have the photographs (R1)

### *Explaining Geographic Dispersion*

Several factors help to explain why the images are scattered among several sites. For the most part, scientific, political and entrepreneurial motivations account for their dispersion.

Foremost is Worcester's academic interest in the 'scientific' classification of the various tribal groups of the Philippines. For this purpose, he used photography to document and illustrate the resulting classification system of "non-Christian" Filipinos that resulted from the various ethnological surveys he conducted. Worcester used the images to communicate his discoveries and findings not only through publications but also by donating prints to various notable museums of natural history. He was prolific in disseminating the products of his ethnological projects.

Worcester used his scientific training and knowledge politically to advocate for the continued American presence in the Philippines. Towards the end of his career in the insular government, he toured various "natural science and geographical societies, institutes,

colleges and schools, religious societies, alumni organizations, Republican clubs, private city clubs, and professional academic meetings” across the US.<sup>6</sup> In his campaigns, he lectured about the various indigenous groupings in the islands and the impact of the colonial government’s civilizing mission. In some of these tours, he entrusted copies of his images and lecture slides to his hosting institution, such as the American Museum of Natural History in New York, which holds an album of prints and slides.

Some accounts describe Worcester as quite enterprising.<sup>7</sup> One curator verified this trait:

Dean Worcester himself was relentlessly commercial in his activities. He tried to make money all the time with everything he did (C4).

He sold copies of his prints and lantern slides to collectors who later bequeathed their collections to libraries, museums and archives. It is not only Worcester and collectors of his images that enabled the distribution of the images in various institutions. Other photographers and camera operators that Worcester employed for his ethnological surveys either sold or donated copies of the images that they personally held. When Worcester died, his family members transferred the remaining negatives and prints they inherited.

Accounting for the various sites where the Worcester images are held started in the late 1970’s. More than 30 years later, more repositories are still being added to the list. The combination of several factors—distance, lack of communication and interaction, and the unavailability of descriptions—account for the difficulty of determining the various institutions that house the Worcester collections.

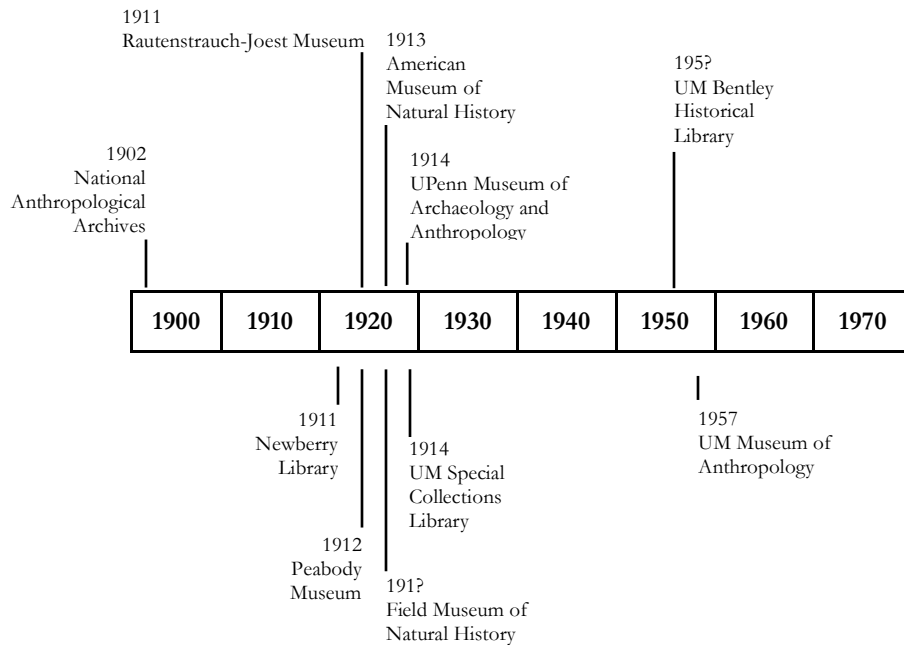
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<sup>6</sup> Paul A. Kramer, *The Blood of Government: Race, Empire, the United States, and the Philippines* (North Carolina, University of North Carolina Press, 2006): p. 358.

<sup>7</sup> Rodney J. Sullivan, *Exemplar of Americanism: The Philippine Career of Dean C. Worcester* (University of Michigan Press, 1991).

### 5.1.2. Temporal Dispersion: When the Images Were Accessioned

Another dimension to the story of dispersion is *temporal*. A chronological look at dispersion reveals different contextual narratives for each set of images in a given repository. Looking at dispersion in time highlights the contexts that shape the formation and dispersion of the images in each institution. Figure 5.3 provides a timeline for the dispersion of the Worcester images across time.



**Figure 5.3.** Timeline of Temporal Dispersion

Institutions did not receive the images simultaneously. Different repositories accessioned the photographs at various points in time. Of the ten institutions covered in this study, the prints at the Smithsonian Institution’s National Anthropological Archives were the first set of images accessioned by a repository. According to its accession records, the museum received Worcester’s “collection of 279 photographs of the Native Filipinos” in October 4, 1902. The period between 1910 and 1915 has the most instances of institutional accessions. This period coincides with Worcester’s retirement from colonial administration

in 1913 when Worcester was conducting public lectures in various North American universities, museums, and social organizations to promote the continued American annexation of the Philippine Islands. Another period of marked accessions is the 1950's when Worcester's surviving children facilitated the transfer of the remaining materials bequeathed to them by their father to the University of Michigan.

Historical dispersion challenges curators and researchers on how best to interpret Worcester's self-representation and intentionality. Interestingly, the images donated while Worcester was alive differ from those that were accessioned after his death in 1924. The differences between the images that Worcester himself distributed when he was alive compared to those that came to institutions much later inspires interest among institutional owners and researchers alike.

One curator, for instance, talked about the level of control that Worcester exercised in distributing print versions of his images versus the negatives that were donated years following his death:

It's interesting that he was aware, presumably, of the offensiveness and the difficulty of, the unpopularity of some of those images that are the ones [the glass negatives] that we got that he didn't want publicly distributed in the same way. So, I think it would be fascinating in a scholarly study to better understand that story. (C1)

Similarly, one researcher was curious to understand how collections that Worcester himself prepared to represent his body of ethnographic work were different from those that remained outside his watch:

I'm very interested in that sort of distinction between what are the images that he himself said are part of my corpus, my body of work, and then what else is there that he didn't have control over? (R1)

The distribution of the images occurred at various points in time. This dimension accounts for dispersion as actions happening in the context of their historical conditions.

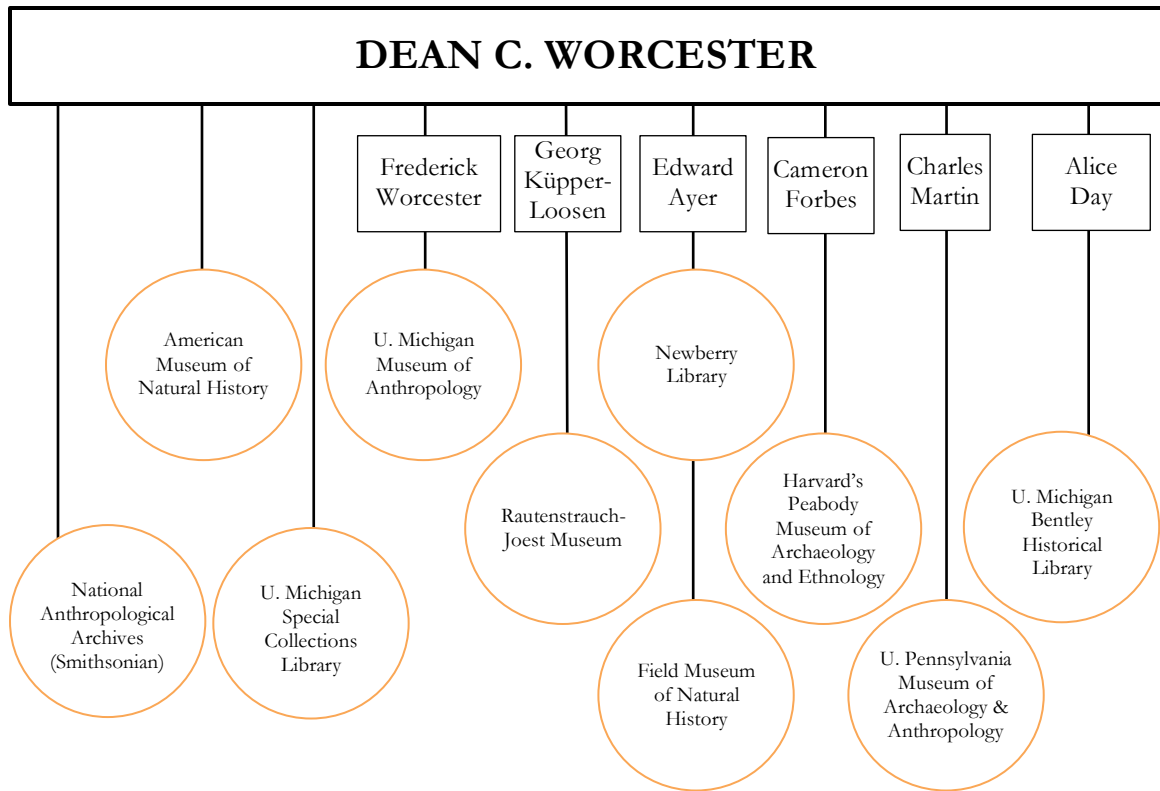
The dispersion of the Worcester images over time reveals the various motivations that shape the direction and subsequent movement of the collection.

### **5.1.3. Provenancial Dispersion: Creators and Owners of the Images**

Dispersion did not only happen in the context of time and space, but it also involved various actors, who at various points in time, were considered to be the rightful creators, owners and donors of the images. The unclear and at times shifting *provenance* and attributions of creation and ownership is thus another dimension of dispersion. The case of the Worcester images opens up complicated issues of ownership and provenance. Figure 5.4 provides an overview of the personalities involved in the dispersion of the Worcester images, which will be discussed in this section.

As previously mentioned, Worcester sold or donated his images to several institutions (University of Michigan Special Collections Library, National Anthropological Archives and American Museum of Natural History). Other personalities also contributed to the dispersion of the Worcester photographs: collectors of his images (Cameron Forbes, Edward Ayer, and Georg Küpper-Loosen), his children (Frederick Worcester and Alice Day), and those who worked with him in his various ethnological surveys (Charles Martin). Part of the difficulty of tracing the story of the images is the context of the images as material possessions, as objects previously held and owned by a private collector. Some images came to institutions as part of a donation. To trace these exchanges is, in the vocabulary of archives and museums, to trace the images' provenance. In following the principle of provenance, archivists have often subsumed and attributed the images under other collectors, which has obscured their origins in Worcester's work. In other words, by

applying the principle of provenance to the individuals who donated collections, the provenance based on origin (Worcester) has been obscured.



**Figure 5.4.** Provenancial Dispersion

Discovery of the images can be difficult when the images are not described as a discrete collection but as a part of a larger collection. Images sold to prominent collectors like Edward Ayer, Georg Küpper-Loosen, and Cameron Forbes were later donated to several institutions. Ayer was an American business magnate who supplied timber to the railroad industry in the 19<sup>th</sup> century. He was widely credited for his substantive monetary and material donations to prominent institutions in Chicago, namely the Newberry Library and the Field Museum. Georg Küpper-Loosen was a businessman from Cologne, Germany, whose ethnographic collections came to the Rautenstrauch-Joest Museum, after his death in



1911. Cameron Forbes was Governor-General of the Philippine Islands from 1908 to 1913. He donated his personal collections of artifacts to Harvard's Peabody Museum of Archaeology and Anthropology.

The Newberry Library describes its Worcester prints as the "Edward Ayer Collection of Philippine Photographs." Worcester is mentioned as the creator of the images and compiler of index under "additional information" in the library's catalog. The images at the Rautenstrauch-Joest Museum are acknowledged as images from the Bureau of Science, which oversees the Bureau of Non-Christian Tribes, a colonial agency under Worcester's supervision as Secretary of Interior. The Harvard Peabody Museum describes the prints under its donor, Cameron Forbes.

Subsequent institutional actions also have direct influence on the conditions of the collection beyond that of the donor's intentions and actions. Some museums historically treated photographic materials differently. For instance, the photographs at the National Anthropological Archives (NAA) of the Smithsonian Institution came directly as donations by Worcester himself. When the images reached the National Museum of Natural History (NMNH), the scientists there divided the images between its Division of Physical Anthropology and the Division of Ethnology. When NMNH established the NAA, all the images were subsequently transferred to this new unit. The collection, however, is still divided to this day. In this instance, the images assumed new roles and contexts that thus complicate their provenance in the institution housing them.

Some images moved from one institution to another. Such is the case of the negatives that are currently kept at the University of Michigan Museum of Anthropology (UMMA). The negatives were first under a long-term deposit with the American Museum of Natural History (AMNH) from 1926 to 1957. In 1957, Frederick Worcester requested the

transfer of the same negatives to the Michigan Historical Collections (now the Bentley Historical Library) which subsequently transferred the negatives to UMMA. Another notable institutional arrangement occurred between the Newberry Library and the Field Museum of Natural History. The Field Museum currently holds copy-negatives (as well as prints from those negatives) taken from the print collection of the Newberry Library. It is unclear exactly when the copy-negatives were created. From the biography of Edward E. Ayer, benefactor to both institutions and first President of the Field Museum from 1894 to 1899, Ayer “sent them to the Museum and had them copied there.”<sup>8</sup> From these copy-negatives, the museum also produced several prints that are now bound, together with other Philippine images, in several volumes of scrapbooks. The images at the Field Museum illustrate a case of inter-institutional borrowing whereby, over time, copies assumed completely new institutional roles and functions.

Intellectual ownership and attribution of the images are problematic. It is difficult, if not almost impossible at this point, to determine whether all the images that are attributed to Worcester by each institution were actually created by Worcester himself. Several camera operators, scientists and collectors worked with Worcester in various expeditions, and often as government employees. His published biography claims that Worcester encouraged, and sometimes demanded, that other ethnographers deposit copies of their images to his office. Worcester claimed ownership of the images produced from his camera and equipment regardless of who operated them.<sup>9</sup>

No institution or publication shows a master list of every image and its respective photographer. If Worcester created a consolidated inventory, it has never been found. In

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<sup>8</sup> Frank C. Lockwood, *The Life of Edward E. Ayer* (Chicago: A. C. McClurg & Co., 1929): p. 87

<sup>9</sup> See Rodney J. Sullivan, *Exemplar of Americanism: The Philippine Career of Dean C. Worcester* (University of Michigan Press, 1991) and Karl L. Hutterer, “Dean C. Worcester and Philippine Anthropology,” *Philippine Quarterly of Culture and Society* 6(3) (September 1978): p. 125-156.

some of his published works, Worcester acknowledged the contributions of other photographers. However, he did not identify or cite the specific photos that they took. His articles, “Head-Hunters of Northern Luzon” and “The Non-Christian Peoples of the Philippine Islands,” which appeared respectively in 1912 and 1913 in *National Geographic* both attribute the photos to either Worcester or the government photographer working under his supervision, Charles Martin. Similarly, the two-volume index that accompanied the donated prints by Cameron Forbes to the Peabody Museum at Harvard says “Catalogue of Photographs by Dean C. Worcester.” But the bottom of the page also acknowledges other photographers involved: “Prints by the Bureau of Science, Manila, P.I. Negatives by Dean C. Worcester, Charles Martin (Photographer Bureau of Science), and Others.” His article on the “Non-Christian Tribes of Northern Luzon” in the *Philippine Journal of Science* identifies other contributing photographers:

- Dr. Merton L. Miller (Chief of the Division of Ethnology of the Bureau of Education)
- Mr. William Allan Reed (of the Ethnological Survey)
- Dr. Albert Ernest Jenks (Chief of the Ethnological Survey)<sup>10</sup>

The general listing of the images at the Rautenstrauch-Joest Museum cites the photographers with their respective images, but a significant number of prints lack such attribution. In addition to Worcester, Martin, Miller, Reed and Jenks the photographers identified in this list are:

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<sup>10</sup> Dean C. Worcester, "The Non-Christian Tribes of Northern Luzon," *Philippine Journal of Science* (1)8 (October 1906): p. 791-875.

- J. Diamond
- Frank S. Bourns
- Dr. Sherman
- E\$B<sup>11</sup>
- Dionysio Encinas
- Georg Küppers-Loosen
- Gibbs Aeronaut
- Roy Franklin Barton
- Murphy
- Emerson Brewer Christie
- Ball

Among the photographers, Charles Martin further circulated the images from the Worcester ethnographic surveys. Martin was in possession of a collection of lantern slides that he later sold to the University of Pennsylvania Museum of Archaeology and Anthropology. After serving as government photographer in the Philippines, Martin became the first chief of *National Geographic* magazine's photo laboratory.<sup>12</sup>

The dispersed Worcester images open up complex issues of ownership and provenance. The involvement of various personalities in their creation, movement and distribution, including the various institutional exchanges and actions all contributed to this complication. Provenance in this case is best understood as a way to uncover the multiple and changing notions of ownership. In order to remain useful and relevant in this context, the concept of provenance must help account for this variability instead of obfuscating the various actors involved in the creation of the Worcester photographs in favor of fixed and immutable attribution.

#### **5.1.4. Material Dispersion: Seeing the Images in Their Various Formats**

The Worcester photographs appear in a variety of formats within and across institutions. The *material* characteristics of photographs add to the complex nature of dispersion that is entirely peculiar to archival images. The same image may appear as a print in one repository, a lantern slide in another or a copy-negative in yet another. Depending on

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<sup>11</sup> The initials appeared in this form in the materials supplied by the Rautenstrauch-Joest Museum.

<sup>12</sup> See Sullivan (1991)

the owning institution, a collection of Worcester images may comprise a set of glass negatives or copy-negatives. It may also be a set of hand-tinted lantern slides. A collection of prints may come either as un-mounted or loose, mounted on cardboard, or glued to the pages of a scrapbook. Accompanying textual descriptions are integral parts of the photos and they appear in various ways. Captions may appear alongside a print of a scrapbook page or as a note written on the back of the photo. In some institutions, accompanying texts come as a typewritten intensive index that can range from a few pages to a multi-volume compilation. Table 5.1 shows a summary of the collections held in various institutions by format.

The reproducible nature of photography as a medium and its openness to be represented, organized, and configured in several ways also facilitated the dispersion of images. The Worcester photos have been reproduced and circulated among people and between institutions. While no definite number is available, accounts claim that Worcester had accumulated about 8,000 unique photographic images throughout his colonial career.<sup>13</sup> None of the owning institutions possesses this quantity of images, thus researchers and those in charge of the images assume that the universe of the images is possibly scattered across all the sites. Another observation among heritage professionals and administrators, including researchers interviewed is that the organization and sequencing of images vary by institution, thus narrative and emphasis may shift by institution.

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<sup>13</sup> See Frank C. Lockwood, *The Life of Edward E. Ayer* (Chicago: A. C. McClurg & Co., 1929) and Sullivan (1991).

**Table 5.1.** Material Dispersion

INSTITUTION	FORMATS HELD
American Museum of Natural History	Two-volume scrapbooks 83 Lantern slides
Field Museum of Natural History	Over 4,000 Copy-Negatives (of Newberry Prints) and positive prints from these copy-negatives, glued on scrapbooks
National Anthropological Archives	279 Positive prints Typewritten index
Newberry Library	5,340 Positive prints Five-volume typewritten index
Peabody Museum of Archaeology and Ethnology	5, 175 Positive prints Two-volume index
Rautenstrauch-Joest Museum	3,778 Positive prints Typewritten index
U. Michigan Bentley Historical Library	About 200 positive prints
U. Michigan Museum of Anthropology	4,662 Glass negatives Acetate copy-negatives Lantern slides Two-volume typewritten index Prints from glass negatives
U. Michigan Special Collections Library	About 800 positive prints on scrapbooks
U. Pennsylvania Museum of Archaeology and Anthropology	About 200 lantern slides Silent film

In order to verify these claims, I compared the digitized versions of the complete glass negatives found at UMMA with the positive prints at the Newberry Library. The goal of the comparison was to see how available prints and existing negatives mapped with one another. The comparison was done manually by holding a print on one side and projecting the digitized versions of a negative on the other using a laptop. All activities were conducted at the Newberry Library's special collections reading room from June to July 2010. A total of 1,923 (out of 5,340) prints were analyzed and compared with digitized version of the negatives. This number covers series 1 to 7 of the Newberry index of the photographs that Worcester himself prepared. Each series represents a particular indigenous community under the classification scheme developed by Worcester himself. The seven groups, from

Worcester's classification scheme in the accompanying index, are as follows: (1) Negritos; (2) Ilongotes (Ibalois); (3) Mangyans; (4) Tagbanuas; (5) Kalingas; (6) Tinguianes; and (7) Ifugaos.

This comparative analysis revealed two main findings. First, not all negatives have corresponding prints and similarly many of the positive prints are without negatives. Of the Newberry positive prints examined, only 930 (48.36%) have corresponding negatives from UMMA collections. Thus, 51.64% of images examined appear to be lacking negatives. Second, there is not a one-to-one correspondence in the numbering system between the UMMA negatives and the Newberry prints and index. Sometimes an image under series 3 of the prints, for example, would be found under a completely different series in the negatives.

The variety of formats in which the images exist is another form of dispersion. Redundancy and duplication are attendant characteristics of the dispersed Worcester collections. While the existence of multiple image versions can be a formidable challenge to institutions, these variations also reveal, as one respondent argues, "original intent" (A7). However, beyond Worcester's intent to reproduce and distribute the photographs, subsequent actions by custodians and repositories add another layer to the history of the images. Heritage professionals and administrators in owning institutions face the challenge of capturing these layers of the collections' history.

#### **5.1.5. Implications**

From the examination of the interview data and available archival sources, this study finds that dispersion can be approached in four ways: geographical, historical, provenancial, and material. These four elements constitute the various dimensions of the dispersion

narrative. They also explain why the Worcester images have remained hidden and account for why efforts at locating the various collections can be an onerous task.

The layered dimensions of dispersion can potentially complicate the virtual reunification decision-making process. Before reunification can proceed, institutions must settle on a strategy for collectively addressing the challenges of the dispersion story. Institutions will also have to reconsider how the archival concepts of provenance and original order can effectively assist in the process of reunification. As described in this section, given the complicated nature of their dispersion as well as the complexity of the photographic medium, ownership and attribution have been understood and implemented differently by different institutions at various moments in time. For virtual reunification to effectively advance, institutions must endeavor to clearly articulate the goals of reunification in terms of defining the best way to capture and represent the various dimensions of dispersion.

## **5.2. RELATIVE VALUE AND SIGNIFICANCE**

The Worcester photographs fulfill various roles and functions for the institutions that keep them. The images are used in a variety of ways. The dissimilar purpose and status of the photographs as a collection reflect the relative sense of value and significance that institutions ascribe to the images. Respondents cited several reasons why the images are deemed important and valuable. The interesting aspect of the Worcester collection is not the question of whether or not the images are important for the institutions that keep them. There was a general sense among all respondents that the images are worth keeping. The more interesting question is how value and significance are understood, contextualized and framed.



The significance of a collection is not a self-evident or inherent property. Value needs to be articulated and justified, especially when making costly digitization decisions. In explaining the significance of the Worcester collections, interview participants draw upon 1) public access demands and research or scholarly use; and 2) uniqueness and rarity of the photographs to express the importance of the Worcester collection to their institutions. Notably, particular notions of use and uniqueness operate in the case of the Worcester photographs. These particularities may or may not be apparent to all institutional respondents, and this lack of a common framework can potentially complicate collaborative efforts at reunification. In other words, significance is contextual and processual, not an inherent quality.

In what ways do respondents from institutions see the images differently and how is the relative assessment of their value a threat to reunification? To answer this question, it is necessary first to provide a description of the relative perspectives on the uses and users of the images and how notions of uniqueness affect the degree to which the images are considered and valued.

### **5.2.1. Uniqueness**

Uniqueness offers one argument for the continued preservation of archival collections. In his seminal essay, “On the Idea of Uniqueness,” James M. O’Toole explores the limitations of the concept of uniqueness in relation to photographs, sound recordings, electronic records and other reproducible records.<sup>14</sup> O’Toole identifies four common understandings of uniqueness in the archival field. Uniqueness has been

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<sup>14</sup>James M. O’Toole, “On the Idea of Uniqueness,” *American Archivist* 57 (Fall 1994): p. 632-658.

used to denote several attributes of archives: the uniqueness of records; the uniqueness of information in records; the uniqueness of the processes which produced records; and uniqueness of aggregation of documents into files.<sup>15</sup>

O'Toole concludes by encouraging archivists to find other ways to justify the continued preservation of modern records on grounds other than uniqueness. He is critical of the concept, and its relative conceptions, as meaningful, applicable, or relevant in the case of photographs where “the traditional understanding of originals and copies is largely beside the point.”<sup>16</sup>

O'Toole, however, was writing at a time before the age of mass digitization. It is useful to revisit his ideas in the context of the present where the heritage world has seen an unprecedented transformation of their collections since the era of microfilming. How does uniqueness figure in the case of the Worcester images? How is the concept articulated in the wake of virtual reunification?

Respondents use uniqueness as a prominent concept in assessing the value of the Worcester photographs for institutions. Uniqueness may first seem irrelevant in a digitization situation. Far from abandoning the concept, however, interviewees still used uniqueness as an organizing idea to indicate the importance and value of images. Uniqueness figures in present and future attitudes and decisions around the Worcester images. The case also presents a particular notion of uniqueness peculiar to the dispersed nature of the Worcester photographs.

### *Uniqueness and the 'Original' Image*

Respondents from heritage institutions mentioned uniqueness frequently in discussions of digitization priorities. They cite uniqueness of the item as among the main

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<sup>15</sup> O'Toole (1994), p. 632.

<sup>16</sup> O'Toole (1994), p. 657.

criteria used to whether or not an item should be included for digitization. The “uniqueness criteria” becomes most apparent when digitization is negotiated in the face of limited resources. One archivist for instance describes the institutional policy of not digitizing items that are “not the one and only,” i.e., holdings that are known to be found elsewhere. In the following quote, the same archivist uses uniqueness (or the perceived lack) to explain why it is difficult for the prints in their possession to be prioritized for digitization:

[Digitization] hasn't been [a priority]. And one reason [that] it is in another institution. I mean, just from that point view. It's not the only... I mean there, maybe, one or two individual images here that may not be in the other institutions. But generally speaking, this collection is not the one and only in our institution, so that doesn't mean we wouldn't do it. It just means we have other collections that are ... the one and only. It's a preservation issue. We would look at it a little differently because we need to be sure that we're going to preserve this because there is no other copy anywhere (A2).

The “uniqueness criteria” is implemented in practice by prioritizing negatives over other formats of the image. Photo archivists in the study place a high premium on the negatives, which they considered to be the “original” image. The archivist quoted above proceeds by stating a general rule of digitizing only from negatives. In effect, if the negative is found elsewhere, then the image becomes less of a priority: “In an ideal situation, we would be scanning negatives and we've been doing that” (A2).

All five photo archivists interviewed consider the negative as the original image: the source of subsequent images and the object that was in contact with the creator and the material present at the moment captured by the camera. Here, a photo archivist reflects on what renders the negative its originality:

The negative is the original photographic object. It's the thing that was initially in the camera that the image was captured on. And it's going to contain the absolute most information of that image and as printed and so you'll have an original print and you may have multiple original prints but they're one generation removed from the original object. The negative is the original object and a print may be an original object too but it's not the original image holder unless it's, of course, a tintype or something (A4).

Other respondents, however, articulate a different perspective on the issue of photographs and uniqueness. Respondent A1 suggests that the reproducibility of photographs makes them an ideal candidate for digital reproduction. A1 argues that images are by design meant to be circulated or shared in their reproduced versions. The original image format (i.e., the negative) is meant to be kept and hidden away. In this quote, A1 describes this argument in detail:

Photographs are not unique. That's a reproducible medium. That's the other joy of it. Yes, you have this one magic thing from which you can make an infinite number of copies, and that's the wonder of it. I mean, 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 can make copies. And they can share them. This is the joy of it. It's not about some preciousness. I mean, the preciousness happens to be that little thing that you hold in your hand, and that's a nice little metaphysical moment. But in the end, it means nothing. What's much more important is the fact that they can be copied. And what's the point of digitizing? Sharing. Well, now that things can be digitized, nothing is a unique item. Not only that, if you go back in history, certainly to any of the religious texts, they have all been copied. How many originals are there? You've got the Gnostic Gospels and things get copied and transformed over time (A1).

Digitization furthers other important institutional responsibilities beyond the promotion of unique items. Such institutional tasks include implementing electronic access and descriptive systems, facilitating collections management decisions and developing online public programs all play a large role in decisions to digitize. One administrator of a special collections library considered relating the impact of digitization to user experience:

What's the impact on users? What are we going to get for what we do? And I don't mean necessarily, we, the librarians in Special Collections but I mean the people who are coming to use our collections. What's the product? What's the deliverable and how valuable will it be for those who would come to be using our collections on site? What's the value added and all of that (A6)?

In the end, respondent archivists saw digitization as a way to engage and understand the collection in more creative and profound ways. One respondent believes that digitization strategies are largely within the purview of individual institutions, but such steps must in the end serve the actual, analog collection:

Digital copies should aid institutions to understand their own collections better. For one, it helps us rediscover what we have. Others like to emphasize the how the digital helps preserve the original. But more than that, I think digitization gives us the opportunity to examine and learn from our stuff using different lenses and tools to the benefit of our tangible items (C6).

Most interview participants consider digitization as an institutional imperative.

However, respondents also reveal that institutional priorities for digitization are not motivated solely by uniqueness. One archives administrator saw the concept of uniqueness as a matter of context and argument. “At some point,” this archival administrator contends, “anyone can argue what the unique quality, aspect, essence or dimension of any item is, or any collection for that matter. So it becomes almost a futile exercise.” (A8) In this instance, O’Toole’s sense of uniqueness as a matter of degree and relativity, and not a question of either/or, is relevant.

It is important to note that uniqueness, originality, and quality are traits important to many institutions and these concepts operate in relation to one another. As indicated above, some respondents value and favor the negative because it is the carrier of the original image. However, other institutions that proceed with digitization use the negative not only because it is the original format, but also because the scanned output is of noticeably better quality.

When specifically asked why they scan from the negative, a typical answer is:

[T]hey produce the best quality image ... They simply offer more information than say scanning from a print. I’ve seen first hand the difference in quality (A7).

Thus, in practice, decisions are much more complicated than simply digitizing all the negatives. Other pressing and contingent factors come into play, such as the quality of the image source, the cost of handling fragile materials, and the absence of the original negative. In the following quotes, two archivists cite these factors as influencing photographic digitization decision-making:

I'm reluctant to commit to scanning the glass negatives for a couple of reasons. One, because I know that it would require a significant cost to have human beings do it. And I think, the product is better at the Newberry [which has a collection of photographic prints] (A3).

What is the most original thing that I have? And maybe that is the print because maybe I don't have the negative or maybe it is a copied print because everything else was destroyed (A4).

One case that illustrates decisions to scan from formats other than the original negative is UMMA's project of digitizing its Worcester holdings in 2007. UMMA collections manager described how the original glass plate negatives were sometimes not the sufficient material for scanning, and why they also rely on copy-negatives:

We have the glass plate negatives that we scanned. Then we also had some color lantern slides. There were few black and white negatives just because we didn't actually have the glass plates anymore, but we had a negative that they had made [in the 1970's] and so we scanned the ones that didn't have those. For instance when the glass negative broke or something or we don't have the originals anymore (CM2).

In this situation, the presence of other versions, i.e., the film copy-negatives of the glass plates produced in the 1970's, was essential in filling the gaps towards completing the whole. The copy-negatives were essential in accomplishing the goals of the digitization project to create surrogates of all the images in the Worcester collection. Thus, the physical condition of the negatives and the gaps in the collection consequently lead to the reliance on formats other than the original negative.

Previously established institutional workflows can also be a factor. One respondent from the American Museum of Natural History (AMNH) cited the decision to digitize from negatives is a matter of expediency and efficiency for this institution. For this interviewee, digitizing from the negatives has become the institutional norm so much that deviating from it can be inefficient. The same respondent explains a workflow specific to AMNH:

Our negatives are arranged systematically by number and it's easier for us to just go through and do those first. And then we can go back in and fill in the gaps because the prints, except for the photographic print collections, which are sizable. Then the prints are in file cabinets open to the public and to the staff for research. They are arranged in large groups but within that group there is no order, so it's impossible to know what's been scanned and what hasn't. Later, we'll be able to start looking at that systematically as well too. It makes more sense for us to do the negatives first. It's just almost a workflow thing (A1).

Heritage professionals and administrators point to the negative as their priority item for digitization. This is because they consider the negative to be the carrier of the original image. In addition, they also note that the resulting images scanned from negatives are better in quality than those scanned from prints or copy-negatives. Thus, in an ideal situation, the glass negatives at UMMA are likely the priority items for digitization. However, decisions to digitize for reunification will require heritage workers to negotiate and develop a procedure that considers contingent factors unique to the dispersed Worcester collection: the physical condition of the negatives, the absence of corresponding negatives for some prints and slides, and the varying digitization workflows of owning institutions.

### *Uniqueness and Dispersion*

The dispersion of the Worcester photographs has consequently created particular notions of uniqueness. As the previous section outlined, various actors were involved in the dispersion of the images at various points in time. Another consequence of dispersion is that

over the years, as each set became embedded in its respective institution, it started to assume unique purposes and functions within the context of the owning repository. Thus, it is not surprising that several versions and configurations of the images are found in various sites. The different ways that the images were processed, represented, described, and used all provide reasons for each institution to argue for the relative uniqueness of the version in their care.

In addition, the attributes discussed by O'Toole, material composition of the image carrier also contributes to the sense of uniqueness. For instance, the Newberry Library and the Field Museum have identical images, but they exist as different formats. In comparing the collections of the Field Museum and the Newberry Library, it is clear that many of the images are duplicated. However, they are held in different formats: the Field Museum holds copy-negatives of the Newberry prints.

Metadata and descriptive actions add another attribute of uniqueness. The Field Museum and the Newberry collections also illustrate this point. The photo archivist from the Field Museum claims:

Our data is much better organized. It's been proofed a couple of times. Obviously, it couldn't hurt to proof it some more, but it's very well organized (A3).

Since no single standard for describing ethnographic images is followed across institutions, there is divergence in the way the images have been described and represented. Descriptive actions and the metadata generated by each institution are thus unique.

Uniqueness is also created by the manner of display, sequencing, and arrangement of the images in different repositories. For instance, in comparing the set of prints of the Peabody Museum and the Newberry Library with the set of negatives at UMMA, the ordering of images is dramatically different. Worcester's sequencing of the prints followed



his proposed classification scheme for the various indigenous groupings of the Philippines. This mode of photographic ordering is more evident at the Newberry and the Peabody Museum collections. Both institutions maintained Worcester's arrangement and classification of their respective prints, whereas UMMA, having a collection of glass negatives, follows the negatives' order of creation.

### **5.2.2. Users and Uses of the Photographs**

I identified different ways of describing the function of the Worcester images among the institutions that keep them. The primary users of the images and purposes for which the photographs will be used vary. The mission and purpose of the owning institution partially determine the use and value of the images. Often, institutions assign particular roles that images are expected to perform in relation to a certain institutional function. In museums, whose main concern is in the display and interpretation of artifacts, the photographs are largely associated with collections management, documentation and object verification. Special collections libraries and archival repositories see the images as collections whose value is deeply associated with outside access and use. They regard the images as having a different type of evidential value independent from other material artifacts.

Two categories of use are apparent in the case of the Worcester images. These categories are closely tied to the perceived function and purpose of the photographs across the institutions that keep them. The first category, perhaps the most widely known in the library, archives and museum world, is composed of access demands coming from those *external* to institutions, users who are external to the organization. The second involves *internal* use, where images primarily support the institutional function of the organization.

### *External Research Demands*

One notion of the importance of the images springs from the expectation of their research use in archival or special collections. In this context, the images are regarded as a set of collections within an archival unit or a special collections library. The value of images relies almost completely on outside demand to access the images. Three main types of users consult the collection: first, scholarly researchers whose interests are driven by more academic questions; second, those whose interest with the images is more genealogical in nature; and third, special interest groups. This latter category includes other museums and particular groups whose interest are neither academic nor genealogical, such as serving as metadata sources for describing museum objects or verifying geographic origins or locations.

### *Academic and Scholarly Research*

Of all types of users, the research and scholarly community receives the most attention and regard. They confer prestige on the institution's research profile and can exert influence on how institutions regard the value of the images as well as the effort that goes into describing the images. As one archivist admits,

As far as I can recall, very few researchers access this collection. But I heard recently that a scholar is writing a book about Worcester. We respond to demand, and it helps us set our priorities (A9).

Sometimes, respondents viewed interest from academic researchers as a positive sign that focuses attention on the collection that otherwise might not receive much attention.

While explaining the challenges digitizing the Worcester images, one museum archivist reveals,

It's an interesting collection and it's not unknown. I mean, it's not a hidden collection. People do know about it. So, I've heard some rumors that somebody might be wanting to do a book about it, but I haven't seen anything, nor come across any formal proposal. So there's always that kind of thing floating around. That "Oh, somebody's going to do a book on this," or

something like that. And if something comes along, I don't think that would mean we would digitize the entire book. You know what I mean? But it changes a little bit on what's happening with this collection (A2).

Researchers can stimulate the interest and curiosity of archivists, which can consequently motivate institutions to conduct further processing work on the collection and its related materials. In one example, a film archivist credited renewed research interest in the collection to a researcher's discovery of Worcester's film, "Native Life in the Philippines," by searching through the Internet Archive. For this project, the archives decided to focus on "the films that we didn't know exactly what we were going to do with them all" (A5). The researcher's "rediscovery" of the film prompted the hiring of a summer intern to do further research and processing work on a set of complementary lantern slides that are also in the collection. This quote reveals how researchers can influence renewed interest and consequently redirect priorities:

I think the reason that my intern was doing that is because I also became very interested in that collection in regard to the film (A5).

#### *Genealogical Research*

While the images are accessed for scholarly research, they also receive significant access demand from those in the category of genealogical research. According to a collections manager affiliated with an anthropology museum,

Like I said earlier, [among the users of the collection are] researchers from the Philippines that are interested in their culture, family members. One person has actually been able to identify her grandmother in some of the images (CM2).

#### *Special Interest*

Respondents also acknowledged a category of special interest groups, like the tattoo artist whose concern may not be academic nor genealogical in nature. Given the

anthropological content and coverage of the images, requests for copies come regularly from museums in the Philippines.

At least once or twice a year I get requests from regional Philippine museums who want to use photos in their exhibitions or from Philippine authors (C1).

### *Internal Use*

Research demands, described here as primary external uses, are typically used as markers of value. Use of the images by those external to institutions demonstrates the importance of the collection from beyond the walls of repositories. Literature centered on user studies reflects this outlook. While Paul Conway's pioneering framework for studying archival users provides a broad notion of users that includes archivists who extract information in order to answer reference queries, prepare finding aids, and organize exhibits, subsequent studies mainly consider users as those external from the archival structure.<sup>17</sup> These works often examine the characteristics and effectiveness of access tools, services, interaction, and skills.<sup>18</sup> The literature on user studies overlooks heritage administrators and professionals as a category of users whose purpose of use are internally driven and motivated by heritage functions. The forays of Elizabeth Yakel and Laura L. Bost Hensey as well as William E. Brown, Jr. and Yakel on administrative use of archival records in academic institutions provide the nearest approximation.<sup>19</sup>

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<sup>17</sup> Paul Conway, "Facts and Frameworks: An Approach to Studying the Users of Archives," *American Archivist* 49 (Fall 1986): p. 393-407.

<sup>18</sup> Helen R. Tibbo, "Primarily History in America: How U.S. Historians Search for Primary Materials at the Dawn of the Digital Age," *American Archivist* 66 (Spring/Summer 2003), p. 9-50; Wendy Duff, Barbara Craig, and Joan Cherry, "Historians' Use of Archival Sources: Promises and Pitfalls of the Digital Age," *The Public Historian* 26 (No. 2, Spring 2004), p. 7-22; Elizabeth Yakel and Deborah A. Torres, "Genealogists as a 'Community of Records,'" *American Archivist* 70 (Spring/Summer 2007): p. 93-113; Elizabeth Yakel, "AI: Archival Intelligence and User Expertise," *American Archivist* 66 (Spring/Summer 2003), p. 51-78; Elizabeth Yakel, "Listening to Users," *Archival Issues* 26(2) (2002): p. 111-127.

<sup>19</sup> Elizabeth Yakel and Laura L. Bost Hensey, In Randall C. Jimerson, ed., *American Archival Studies: Readings in Theory and Practice* (Chicago: Society of American Archivists, 2000): p. 449-471 and William E. Brown, Jr. and Elizabeth Yakel, "Redefining the Role of College and University Archives in the Information Age," *American Archivist* 59(3) (Summer 1996): p. 272-287.

Respondents from owning institutions depict external use as signifiers of value. Yet, there are a variety of in-house and institutional interactions with the collection that remain unexamined and form a large portion of access to images. These institutional actions are incremental and are often under-acknowledged for their influence in rendering and bestowing value. Respondents see in-house use as unremarkable due to its repeated and mundane nature. However, I find that institutional use constitutes a significant category of use that will likely influence the direction and purpose of reunification efforts.

In cases where the photographs play a role as sources of documentation and metadata for existing and future artifact collections, institutional use forms another distinct aspect of the Worcester image collections. This dissertation identifies these as internal use.

Images are embedded in institutional work:

I've not researched enough of the history of how photo albums themselves developed. But my theory is that they developed as supporting documentation for the collection over the years (CM1).

CM1 emphasizes institutional and staff use. Care and management of the photographs lay within the purview of the collections manager. In this context, the Worcester images are appreciated for their power to help document material culture usage and customs. Museum participants gave the images a more functional utility as supporting materials in the performance of institutional activities like education, interpretation, and exhibition. Their value is therefore realized in relation to how they are consulted for in-house research and use in preparing exhibitions, catalog descriptions, and other collections metadata.

Museum professionals and administrators interviewed report the Worcester images as a form of documentation that supports other institutional responsibilities of researching, interpreting, documenting, or exhibiting material artifacts in their collection. Thus, the

Worcester 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 certain objects' cultural function and use. One respondent, working as a collections manager at UMMA, relates how some confusion over how a particular object was worn:

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).

Images are cited as sources of visual information that the museum consults to establish, as in the above quote, how certain decorative ornaments are worn or how certain objects are used in particular community rituals, gathering, or events. Thus, the utility of photographs largely relates to the material culture that they document. A respondent from the Field Museum, having similar anthropological and natural history collections as UMMA, describes the Worcester photographs as having greater status as supporting documentation in relation to other object collections of the museum:

In the technical sense of how we do things here at [this particular] museum, they're not accessioned by the department in the sense that we do own them but we don't consider them part of our permanent collection here, in the sense that we don't catalog them like we do objects and they're not part of any particular accession to my knowledge, like a collection of objects would be. So in that sense, in that vein, they're considered more supporting documentation that we have (CM1).

In this case, the collections manager largely regards photographs as metadata sources for other material artifacts in the museum's collection. Images provide additional information, reference, and context to permanent collections, the artifacts considered to be the primary materials in their care. Because of this referential function, the Worcester images in these museums are organized either by subject content, indigenous groupings, or some

other filing system peculiar to the respective units that consult or use them. In some cases, the images are bound in scrapbooks and are intermingled with non-Worcester images. When filed under subject or ethnic classification, images are organized in alphanumeric order and therefore lose their context as a discrete Worcester photographic collection.

In one natural history museum, photographic items have historically been utilized as educational tools. The subject-based classification reflects the institutional use of the photographs, mainly as visual aids for public instruction:

I've often felt that our collection is rather unique in the way it's innately organized, the photographic collection. There are a lot of different parts to it. It's very complicated. But, historically, in this institution, the photographs were managed by the Department of Education. They were arranged by subject in an analog fashion on those cards that are outside in the file cabinets. And Provenance was totally disregarded (A1).

This practice of reorganizing images and filing them by subject content or indigenous groupings has been in place for several decades in some institutions. When the Worcester images arrived at the U.S. National Museum in 1902, the prints were divided between two departments, physical anthropology and ethnology. Photographs bearing images of the human anatomy or body parts emphasizing physical trait, make up, or characteristics were given to physical anthropology. On the other hand, those that depict rituals and material culture were transferred to the department of ethnology. When these images were transferred from the respective departments that housed them to the Smithsonian's National Anthropological Archives (NAA) in the 1990's, this particular split was maintained. The archivists thus assumed that the provenance of the photos was not Worcester, but the departments that utilized them. There are, however, clues indicating the photos' Worcester provenance. The original accession record, the letter of donation, as well as the accompanying index that Worcester himself had provided are all found in the archives.

At the Field Museum, units other than the owning department (in this instance, anthropology) access and use the images for research purposes. One collections manager explains why other departments of the museum are also interested in consulting the Worcester photos:

We do have colleagues in the other departments, for instance Zoology, who do fieldwork in the Philippines, like in Northern Luzon for instance, looking at [the photos]... And so, there are images of the landscape that Worcester would take in areas in which they work that might be important to them, too, so it can go beyond just anthropology. We could go to some of our other colleagues, too, who were working in the area, so you could use it in that term to, say, it's benefiting not just anthropology, but it could benefit other colleagues here and then their colleagues who are working in the Philippines too, of having access to these images. We are not only seeing cultural customs from back over 100 years ago but you're seeing maybe how the landscape has changed. Because one area that the museum likes to focus on is our conservation programs, which anthropologists and biologists go and do rapid inventories and work with the local groups in these areas to try to see what's there, to make sure that these areas are preserved and not overtaken by corporate interests who want to go in there and do with the land what they would like, in terms of logging or extracting minerals or other sorts of things (CM1).

### **5.2.3. Implications**

The treatment of the Worcester photographs and perspectives on their function, value, and purpose by the holding institutions can pose significant barriers to a virtual reunification project. The differing local functions of the collections at institutions influence individual conceptions of the proper shape or useful role of a reunification project. Variation between institutions creates differing emphases in how each conceives of a successful reunification project.

A category of relative value beyond the traditional notion of researcher access and use emerges from the interview data. Respondents from owning institutions and respondents from funding agencies consider frequency of research access as the main determinant of value. In the case of the Worcester images, value does not solely rest on the



number of research requests generated over time. In-house, institutional use plays a large part in the assessment of value. Historical and prolonged interaction with the collection can create a profound sense of value. In-house use can mean a variety of actions. A good example of institutional use would be consulting images in relation to exhibition design, collections management, and other institutional functions. This finding indicates that the commonly held attitude among respondents—frequency of outside research requests as primary indicator of value—needs to be rethought. A more holistic determinant of value should include institutional use of images over time.

### **5.3. OWNERSHIP AND RESPONSIBILITY/KNOWLEDGE AND EXPERTISE**

It's going to involve a number of people's time. In terms of the initial discussions, I think, which are a very vital to figure out what sort of direction it goes in. Making sure everybody who should be involved, is involved in the process. Talking about it... how to do things (CM1).

The prospect of reunifying the Worcester images opens up questions about the appropriate scope of professional and institutional responsibilities as well as the expertise necessary to accomplish the task of online representation. Issues in this category are wide-ranging. Barriers range from the practical concerns of resource allocation and developing actionable plans to more academic, conceptual, and ethical predicaments of indigenous representation and cultural contextualization.

Respondents question their authority and qualifications to make decisions about cultural representation. However, they indicate confidence in making decisions on the technical, physical, and material aspects of the collection, for instance in terms of storage and conservation, quality of scanned or digital copies, and the relative value of prints in relation to their glass negatives. This suggests a duality in expertise domains: knowledge of physical/material aspects on one hand, and interpretation and representation on the other.

The latter is what respondents from owning institutions identified as the kind of expertise that can be brought into their respective institutions. Lacking direct knowledge and expertise in Philippine indigenous cultures, respondents directly responsible for the Worcester images manifest a level of reluctance to perform interpretive tasks.

Analysis of responses suggests that lack of certain domain knowledge and qualifications also pose great obstacles to virtual reunification. Three main themes emerge in describing this particular hurdle. These are:

- *Cultural and historical contexts of the photographs* – someone who knows how to navigate through the sensitivity issues related to the images and someone who can best decide on how the images should be represented online
- *Administration and coordination of collaborative projects* – someone who can and knows how to coordinate with all institutions, including the power to influence others to allocate resources and commit to the tasks ahead
- *Technical requirements and expertise* – someone who knows digitization standards and procedures, interface design, as well as metadata management, creation and consolidation

### **5.3.1. Cultural and Historical Contexts of the Photographs**

Acknowledging the absence of direct connection and membership in any of the indigenous communities documented in the photographs, respondents sometimes question their own qualifications, as well as authority, to ethically display the ethnographic images online. Institutions with predominantly natural history or anthropological collections are most conscious of their lack of expert knowledge and direct connection with Philippine

indigenous groups as a limitation. In thinking about sensitivity issues, they draw parallels with established protocols for Native American collections:

It's come up in the North American Indian photo collections that there are some photos that really are not appropriate to be digitized and be put out and just kind of thrown out there. ... Well, there are some photos of certain tribes that specifically don't like having their images out there for various reasons. ... That could be an issue in this collection too. ... Images are always a little, they potentially can be problematic if people don't understand what they're looking at and they may think they're looking at a stereotypical image, not an ethnographical image (C5).

The ambiguous relationship between the images, the heritage professionals responsible for them, and source communities can profoundly affect how a reunification project would proceed and the ends it might achieve. Geographic, temporal, and cultural distance between owning institutions and the communities documented by the Worcester images raise serious concerns. Respondents from owning institutions noted their lack of access to source communities depicted in the Worcester photographs under their care. They consider the absence of a formalized mechanism and infrastructure to gather community input systematically on the display and representation of the images as a significant barrier:

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)?"

Interviewees questioned what constitutes the boundaries for adequate fulfillment of institutional responsibilities over the image. The continued safekeeping and preservation, creation of finding aid and access systems, and facilitating research use of the collection are seen as the primary responsibilities of institutions. Thus, the accomplishment of these functions demonstrates that institutions are fulfilling their social responsibilities:

It is not pure luck or accident that the images survived. The fact is that, over the years, we've managed to keep and make the images accessible despite limited staff and resources. The cumulative effort to preserve the collection is

not too insignificant. I think it fulfills our primary obligation as an institution (C6).

But some respondents considered the return of images to source communities as a moral imperative that must be fulfilled. Others like A8, however, were concerned about the potential challenges of repatriation. Here, A8 raised the politics of identifying who gets to become the spokesperson for communities documented over a century ago:

There could be 80% of a tribe that thinks everything's fine and maybe the 20% are really a vocal 5% to 10% get their... We don't know who is supposed to say "we object," or "we disagree," or "we don't like this (A8)?

### **5.3.2. Administration and Coordination of Collaborative Projects**

In my analysis of the literature in chapter 2, I identified the ability of owning institutions to collaborate with each other as an essential precondition for successful virtual reunification. As important as collaboration is, several factors may impede the institutions' ability to come together around an effort to reunify the Worcester collection. I identified three areas where barriers to reunification manifest: the allocation of tasks, personnel, and institutional priorities. Three issues come to bear in this realm as key responsibilities. First, accounting for the level of digitization efforts done on the collection. Second, understanding whether the person enthusiastic about collaboration has the authority, if not support from a higher-level authority in the organization, to commit to the project. And, third, identifying the person knowledgeable and willing to coordinate across institutions.

#### *Digitization and Motivation*

The statement below by one curator reveals some of the main challenges of collaboration relative to staff motivation and responsibilities.

The barrier has had more to do with personnel and priorities ... I think [the photo archivist at another institution] was quite interested, but I don't think she is the decision maker on priority for her department. And in a way I

guess, personally, I kind of feel like our museum has done a lot of the work that needs doing at this point. We have digitized ours. We do have a database. So, I'm not sure that I'm necessarily the person to take the lead in it. Though I'd definitely like to be part of a joint project, and I think we could work everything else out. I guess there could be some issue on who would maintain, if there was going to be a website, where the website would be based, who would maintain it in perpetuity, all those kinds of issues. And we have to debate image resolution and those kinds of nuts and bolts things, but I think it's really getting to motivate the people behind it (C1).

The statement underscores the claim that an advanced level digitization work is not necessarily an indicator of willingness to lead and coordinate future collaboration efforts. Staff motivation and leadership are seen as important components of collaboration beyond resource allocation. Respondents at institutions that had already digitized their collection assumed that their institutions had done what needed to be done and that further virtual reunification work would have to be initiated by those lagging behind on the digitization front. The respondent quoted above exemplifies this thinking.

### *Leadership and Coordination*

Institutions that already digitized their collections hold divergent opinions from those who have not about who should take on the responsibility to coordinate and lead reunification projects. Institutions who have done less with their collection assume that those who had done more might be in the best position to assume a leadership and coordination role. For fear of duplicating previous and existing efforts, some institutions avoid digitizing non-unique collections. Faced with limited resources, institutions prioritize collections found only in their care:

If you're doing a virtual project, obviously, they need to be digital, but then where do... How far do we go? I don't know that the answer is, "Oh, digitize everything." I think you need to say, "Let's be prudent and let's figure out which images already have digitals. It's just a question because digitizing is expensive and time consuming and there needs to be funding and we don't really have any (A2).

As one respondent (A4) noted, “everyone has a different ways of doing things,” and it is in this sense that hosting and coordination are seen as highly necessary. The institutional host is expected to lead all coordination efforts, rationalize the various tasks, and consolidate various pieces:

My first question would be, “Who’s hosting this?” Because it would have to be hosted somewhere and the different institutions that have these collections would all have to somehow be able to... Would have to link, I almost think it would be easier if you convince one institution to do it and then just link to other institutions. Just have one institution that had the collection, have the finding aid or whatever that lists the here’s this and here’s all the other institutions and here's links to those. Because I think if you're trying to create some kind of central thing, I just simply don't know how you would do that. And everyone has a different ways of doing things and so (A4).

### *Structure and Hierarchy*

Organizational hierarchy and structure are important considerations in defining and determining roles and responsibilities. The Worcester collections are not uniformly located in the hierarchies and structures of the institutions that house them. For instance, the photo archivist in-charge of the copy-negatives at the Field Museum, while enthusiastic about performing further work on the images, may not be the person with authority to commit or allocate the necessary resources. In some institutions, the decision to digitize might ultimately rest with one or two people, but the execution potentially involves various other individuals and units working on a different timeframe or priorities.

This is a big [organization] ... [If the Director] says, "Yes, these are your priorities for next year based on section four of this project." We agree and they will bring the project to the unit and say, "Well, look." And they may say, "Forget it. Wait for five years." We have many... Or [the unit in-charge of digitization] may say, "Well, this is priority number one..." Then you enter all this politics so to speak. But, the decision we want to do is that [the Director] will decide, "Okay, this is priority. We think this is really great. The collection is important." But then, the implementation will be kind of decided eventually by many people (C3).

Heritage professionals and administrators repeatedly describe lack of time and other pressing responsibilities to be among the primary reasons that prevent them from assuming a more active and leadership role in any future projects that involve collaboration.

The harsh reality is, I'm a department [of] one ... My thought process is, "Okay, what kind of a time commitment would there be?" If you said X hours, then I have to figure out, do I have the X hours and what would be the deadline and possibly having to negotiate for a longer deadline. Or, if you were to say, "Well, I have two very experienced database, whatever. What if I sent them to you and then that would shorten our turnaround time." My boss uses the expression, "Throw bodies at it." So that, if it's something where bodies could be thrown at it, which would lessen my time, then I'd be even more excited (A3).

### *Ownership and Control*

As institutions contemplate the possibility of online access to the Worcester images, issues of ownership and control over the representation of the images arise. Given the ethnographic nature of the photographs, respondents from owning institutions seek to find the right balance between online access and responsible portrayal of indigenous cultures. Among the potential difficulties they foresee are version control as well as guaranteeing that viewers recognize which images belong to which institutions. Appropriate institutional recognition and proper ownership attribution are major concerns.

### **5.3.3. Technical Expertise**

Respondents identified areas of technical knowledge and skills necessary for reunification to proceed. In particular, they designated photographic descriptive and metadata standards as well as technical and quality decisions of digitization as among the technical expertise necessary, but may be lacking, in institutions.

Reports describe online reunification as a strategy for providing online integrated access to dispersed collections.<sup>20</sup> Heritage professionals and administrators consider the necessity of having descriptive standards that can accommodate both metadata created and accumulated by institutions over the years as well as information provided by Worcester. Some respondents wish to proceed by following the more traditional finding aid structure. But others see the finding aid as limiting and thus encourage the development of alternative ways of representing the images. In this quote, a collections manager describes the complexity of metadata for the dispersed collection, including questions around how all the available information could be linked:

Gathering... And not knowing what they have and what kind of information they have, even for information per photo is pretty limited. He might have a title. He might have given us a title or a quick little description, location of where it was taken. But it would be interesting if any of our materials overlapped, do the other institutions have additional information than what we have? So having... I don't know how you would necessarily do that. That's why... Do you use a single database? Do you link databases? But then what do you link it on? We have... Right now the database that we have set up is based on his original number that was assigned to each of the negatives. I don't know how the other institutions have numbered theirs or identified theirs. Does that... Did he reuse the same system multiple times (CM2)?

#### **5.3.4. Seeking Outside Expertise**

My analysis concludes that institutions will have to solicit outside expertise in order for virtual reunification to proceed. This task entails two major concerns. First, if the project is of a critical edition nature, an editor needs to be identified. Alternatively, a project manager with domain expertise will have to be enlisted.<sup>21</sup>

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<sup>20</sup> Anne Marie Austenfeld, "Virtual Reunification as the Future of 'Codices Dispersi': Practices and Standards Developed by e-codices—Virtual Manuscript Library of Switzerland," *IFLA* 36(2) (2010): p. 145-154 and Helen Shenton, "Virtual Reunification, Virtual Preservation and Enhanced Conservation," *Alexandria* 21(2) (2009): p. 33-45.

<sup>21</sup> Christa Williford and Charles Henry, *One Culture: Computationally Intensive Research in the Humanities and Social Sciences* (Washington, D.C.: Council on Library Information Resources, 2012).



A4 identified two reasons why reunification has not occurred in the past: “Usually, it's not brought together because we don't have the time to devote to it or don't realize that it's related to a collection.” A4 cited lack of time to perform in-depth study on the collection and the awareness that other related materials exist point to the expressed need for someone to fulfill the role of an editor. In this sense, the work of reunification is likened to the creation of a scholarly or historical edition, except that the materials under study are dispersed images:

A scholarly edition is kind of par excellence the reunification of material that was once the product of an individual or a group or an organization and it's almost always dispersed in a variety of places. The editor goes about the process of collecting copies, going over those and then transcribing them or printing them on so that others can see a line of correspondence for example, and you can tell then a story about a person's life by having those papers together rather than in sort of traveling all over the place. And that may in fact be the most analogous of what you're trying to accomplish with the photographic reunification in that you would tell visual story as opposed to some kind of documentary. It will be a different kind of documentary story, but as opposed to text and words, you would have photographs (F1).

An editor would “do any kind of sequencing or put any of those photographs in order, you'd have to have some information about; when they were created, when they were taken, who they included, and so on” (F1).

A second form of outside expertise is community knowledge. Respondents A3, A5, C1, C2, CM1, CM2 and L1 underscore the partnerships with members of the source communities, or at least the Filipino-American community as absolute necessity. Institutions want community involvement and to facilitate consultation and dialogue. To some extent, this was already being done by some sites even before virtual reunification was presented as a possibility. These consultations, however, are not uniformly conducted and are not being done across all institutions. Some consider virtual reunification as a way to further these

existing community connections, whereas others expect the project to initiate one for their respective institutions.

### 5.3.5. Implications

The removal in 2010 of 14 dioramas that depicted Native American groups at the University of Michigan's Exhibit Museum of Natural History illustrates the complex issues institutions face in representing indigenous cultures.<sup>22</sup> Although largely deemed accurate in their portrayal, and immensely popular among many generations of museum-goers, members and non-members of Native American communities found the displays to be offensive. Amy Harris, the Exhibit Museum's director, eventually decided to have the dioramas removed from public viewing. However, the process was not easy and encompassed about nine years of dialogue and consultation with various stakeholders that included Native American communities, the University constituencies, residents of the City of Ann Arbor, and many others. In this situation, as in the case of the Worcester collection, heritage institutions face the question: Who decides how other cultures are represented?

As the data regarding expertise suggests, for virtual reunification to succeed institutions must consider whether or not they have the knowledge to "analyze deeply embedded social issues" (A2) that the images inspire. The issue of online reunification is not only a matter of technical, physical, or material decision-making, but also a project requiring expertise in the domain of cultural representation, more specifically that of Philippine indigenous communities. Interviewees' perceived absence of deep knowledge of indigenous

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<sup>22</sup> Raymond Silverman and Carla M. Sinopoli, "Besieged! Contemporary Political, Cultural, and Economic Challenges to Museums in the Academy As Seen From Ann Arbor," *University Museums and Collections Journal* (UMACJ) 4 (2011): p. 19-31.

cultures and the general lack of expertise in other domain areas such as metadata standards can pose significant obstacles to a reunification project.

The varying structures and hierarchies of institutions also present major challenges in pursuing collaboration and establishing coordination. The absence of a primary coordinator that can influence others to make decisions points towards the need for someone to assume the role akin to that of the editor in the world of scholarly or historical edition.

#### **5.4. CONCLUSION**

This chapter illustrates the multiple challenges that face the planning and implementation of a virtual reunification project for Worcester's photographs. As analysis of archival and interview data indicate, these challenges may be understood to fall into three major areas that affect reunification: the complex history of the images' distribution and dispersion, the divergent ways that institutions and researchers determine whether their collections are valuable, and finally, the sensitive and practical areas of expertise deemed necessary. Together, these areas present substantial challenges to a virtual reunification project. In addition, as observed at the opening of the chapter, these challenges are substantive social issues rather than insurmountable technical ones. The challenges facing the Worcester image collections are not necessarily unique. In the next chapter, I review the challenges and barriers to virtually reunifying the Worcester images and explore broader implications of this study for future reunification efforts and archival theory.

## CHAPTER 6

### CONCLUSIONS AND IMPLICATIONS

This dissertation explored the barriers and challenges of virtual reunification by examining the dispersed ethnographic images of Dean C. Worcester and the heritage institutions that house them. In developing this case study, I interviewed heritage workers, representatives of funding agencies and academic researchers as well as conducted archival research across ten repositories. Using several conceptual frames—the Linear and Goal-Oriented Approach (Figure 2.1), the Process and Product Approach (Figure 2.2), and Stakeholders Approach (Figure 2.3)—I presented the synergies and disconnects between and within institutions and stakeholders with different objectives.

My analysis shows that certain determinate conditions hinder future efforts to reunify the Worcester collection. This chapter reviews these barriers and challenges and examines their implications. Where possible, I present guidelines and observations that may be of broader when planning and designing other virtual reunification projects. I also provide the implications of my findings for archival principles and ideas.

#### 6.1. BARRIERS AND CHALLENGES

I summarize the attendant problems of virtual reunification in three categories: multiple and competing visions, ambiguity and uncertainty, and 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.

### 6.1.1. Multiple and Competing Visions

Respondents from heritage repositories viewed virtual reunification as a way to accomplish institutional functions and responsibilities. They indicated key priorities 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. For them, 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.

If participants from collecting institutions understand virtual reunification as a means of addressing local processing needs, funders underscore the importance novelty and innovation. Thus, 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 owning institutions and funders implies that reunification efforts must satisfy multiple purposes and complex outcomes.

I claim that the 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.

### **6.1.2. 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 itself presents initial complication for reunification, including four main dimensions of dispersion for the Worcester images. In examining these dimensions—geographic, temporal, provenancial, and material dispersions—I identified potential complications in virtual reunification decision-making. One concern is the problematic ownership and attribution of the Worcester images that consequently makes it hard to identify what images are kept where. Another 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 challenge efforts at locating the Worcester collections, they also engender questions of originality and uniqueness.

The complex social and technical issues of representing ethnographic images raise another area of ambiguity. Heritage workers voiced uncertainty about their qualifications for dealing with representational questions around photographs with perceived sensitive

contents. Often, this was expressed as a need for Philippine historians or anthropologists. A colloquium held in 2006 explored the expertise necessary for archivists to move confidently into the digital age.<sup>23</sup> 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.

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<sup>23</sup> For example, see Richard Pearce-Moses and Susan E. Davis, editors, *New Skills for a Digital Era*, colloquium proceedings (Washington, DC: National Archives and Records Administration, Society of American Archivists, Arizona State Library, 2006).

### **6.1.3. 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.

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. 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.

## **6.2. 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.



### 6.2.1. The role of in-house institutional use

Studies of use and users of archives primarily focus on outside research demands.<sup>24</sup>

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 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 early notion of users crafted over twenty years ago include archivists who extract information in order to

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<sup>24</sup> Helen R. Tibbo, "Primarily History in America: How U.S. Historians Search for Primary Materials at the Dawn of the Digital Age," *American Archivist* 66 (Spring/Summer 2003), p. 9-50; Wendy Duff, Barbara Craig, and Joan Cherry, "Historians' Use of Archival Sources: Promises and Pitfalls of the Digital Age," *The Public Historian* 26 (No. 2, Spring 2004), p. 7-22; Elizabeth Yakel and Deborah A. Torres, "Genealogists as a 'Community of Records,'" *American Archivist* 70 (Spring/Summer 2007): p. 93-113; Elizabeth Yakel, "AI: Archival Intelligence and User Expertise," *American Archivist* 66 (Spring/Summer 2003), p. 51-78; Jean Dryden, "Do We Care What Users Want? Evaluating User Satisfaction and the LibQUAL+™ Experience," *Journal of Archival Organization* 4(4) (2004): p. 83-88; Wendy Duff, et al., "Archivists' Views of User-based Evaluation: Benefits, Barriers, and Requirements," *American Archivist* 71(1) (Spring/Summer 2008): p. 144-166; Wendy M. Duff and Catherine A. Johnson, "Accidentally Found on Purpose: Information-Seeking Behavior of Historians in Archives," *Library Quarterly* 72(4) (2002): p. 472-496; Elizabeth Yakel, "Listening to Users," *Archival Issues* 26(2) (2002): p. 111-127; Elizabeth Yakel, "Encoded Archival Description: Are Finding Aids Boundary Spanners or Barriers for Users?" *Journal of Archival Organization* 2(1/2) (2004): p. 63-77; and Geoffrey Yeo, "Understanding Users and Use: A Market Segmentation Approach," *Journal of the Society of Archivists* 26(1) (April 2005): p. 25-53.

answer reference queries, prepare finding aids, and organize exhibits.<sup>25</sup> I argue that while we 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 dissertation 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. However, I am curious to know if there is any correlation between this type of institutional valuing with outside users' assessment of significance.

### **6.2.2. Provenance and Original Order**

Findings of this dissertation 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

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<sup>25</sup> Paul Conway, “Facts and Frameworks: An Approach to Studying the Users of Archives,” *American Archivist* 49 (Fall 1986): p. 393-407.

addition, interview data show disparity between the institutional organization of collections and Worcester's idiosyncratic way of arranging his 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.

### **6.2.3. Uniqueness and Originality**

The Worcester collection presents complicated notions of uniqueness and originality. 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.

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.

### 6.3. 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 is thus a strategy to consolidate several pieces of information into a more knowable whole.

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 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.

Through an investigation of the case of Dean C. Worcester's photographs of the early-twentieth-century Philippines, this dissertation has shed light on the planning, process, and challenges to carrying out virtual reunification projects. As I have shown, detailed interviews with a breadth of stakeholders, combined with a detailed study of the materials, involved in the process revealed more clearly the challenges and 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.

## APPENDIXES

## Appendix 1 Interview Protocol: Owning Institutions

### *Background of Respondents*

- 1) What is your highest level of education? What was your major area of study or main academic degree?
- 2) What is your official job title in this institution? How long have you been in serving in this present position?
- 3) Please describe the scope of your responsibilities in this institution.
- 4) How long have you been an archivist/curator/librarian? Or serving in a library/archive/museum context? Or in the heritage sector in general?
- 5) Please describe your responsibilities in relation to the Worcester collection
- 6) Do you have previous experiences in:
  - i) digitizing a collection?
  - ii) in web design?
  - iii) metadata/bibliographic control?
  - iv) conservation?
  - v) other?
- 7) Please describe your responsibilities in these projects.

### *Digitization within the organization*

- 1) History of digitization in the organization. How long has this organization been involved in digitization?
- 2) Have there been any web-based projects conducted that involve your collection? How often does this happen? Who was involved? What was your role in the process?
- 3) Please walk me through how digitization projects are done in your organization, from conceptualization to initiation to implementation to completion?
- 4) Does your institution follow any specific protocol, a set of policies, or guidelines for digitization?
- 5) What is your institution's policy regarding online access to the digitized versions of your collections?
- 6) Is there a unit or individual that specifically coordinates all digitization efforts in this institution?
- 7) How about for web-based projects of your institution?

### *Inter- and Intra Institutional Collaboration*

- 1) Has your institution been on a digitization project that involved collections of other heritage institutions? How would a process of this nature proceed?
- 2) Please talk about the role of the following in a collaborative digitization project:
  - i) Funding source(s)
  - ii) Units/personnel involved
  - iii) Outputs and goals
  - iv) Policy dimension
  - v) Rules and procedures followed
  - vi) Resource requirements

- vii) Indicator of success and general assessment of the project(s)
  - viii) Other considerations
- 3) What motivates your institution to pursue a collaborative digitization project?

***The Worcester Collection***

- 1) Please briefly talk about the history of the collection in your institution? When and how was the collection acquired? What previous processing (arrangement, description, preservation) has been done on the collection?
- 2) Were there any significant projects done in relation to the collection, such as exhibition, publication, etc.?
- 3) What do you think is the value of this collection relative to:
  - i) The overall mission of the institution
  - ii) Other collections within the institution
  - iii) Collections of similar *format* and *content*
- 4) Have there been any digitization efforts done to the collection?
  - i) What were the sources of funding?
  - ii) What was the procedure(s) followed?
  - iii) What resources were used?
  - iv) What personnel or units were involved?
  - v) What was the end product(s)?
  - vi) What was the indicator(s) of success of the project?

***Worcester Collection: Collaboration and Digitization***

- 1) Are you aware of other Worcester images kept in other repositories? Please identify other owning institutions known to you.
- 2) Have you or your institution been involved in any collaborative projects with these institutions?
- 3) Would you consider venturing into a collaborative digitization project with other owning institutions?
- 4) What product would such collaboration produce? What steps should be taken to produce this product? What expertise is required in its creation?
- 5) What would such a project require from you and your institution?
- 6) What would be the possible impact of this project on:
  - i) Your institutional mission
  - ii) The collection
  - iii) With other institutions involved
  - iv) People who access the collection

***Additional Comments or Feedback***

- 1) I would appreciate any additional comments or feedback that may be of interest in this study.



## Appendix 2 Interview Protocol: Researchers

### *Background of Respondents*

- 1) What is your highest level of education? What was your major area of study or main academic degree?
- 2) What city and state do you live in?
- 3) What is your main line of work? Please describe what you do. If you are affiliated with an academic institution, which best describes your position?

<input type="checkbox"/> Undergraduate student	<input type="checkbox"/> Faculty member or post-doc
<input type="checkbox"/> Master's student	<input type="checkbox"/> University staff
<input type="checkbox"/> Doctoral student	<input type="checkbox"/> Other, specify _____

### *Using the Worcester Collection / Research / Product*

- 1) How did you find out about the Worcester collection?
- 2) Have you used any printed documents, books, catalogs, indices, or finding aids for your research project? If so, please elaborate on how the printed material(s) met or did not meet your expectations.
- 3) Tell me the nature of your interest in the Worcester images? What is the research project that made use of the images? What research questions brought you to the collection?
- 4) Which best characterizes the project that motivated the use of the Worcester images? Why did you engage in this research project?
- 5) What was the main product of the project? May I have access to this product? Does your research on the images require you to access the images onsite?
- 6) Have you accessed collections in more than one repository? Where did you conduct the majority of your research for the images? How many times have you accessed the Worcester collection on a given site?
- 7) Please describe your experience(s) in accessing the collection in these repositories?
- 8) Have you accessed the collection online or in digital format? Please tell me your experiences in accessing the images online or digitally.

### *Ideas About Integrating the Collection*

- 1) How do you think the integration of all the Worcester images would affect your research?
- 2) What do you like that integration should look like?
- 3) What should a project that integrates the collection aspire to accomplish? How would the integration be useful to you?
- 4) Do you foresee any problems in bringing the all the collections together? Why or why not?

### *Additional Comments or Feedback*

- 1) I would appreciate any additional comments or feedback that may be of interest in this study

## **Appendix 3**

### **Interview Protocol: Funding Agencies**

#### *Background of Respondents*

- 1) What is your highest level of education? What was your major area of study or main academic degree?
- 2) How long have you been working in this institution? What is your current job title?
- 3) What are your responsibilities in this agency? Please describe what these entail.

#### *How Projects Get Funded*

- 1) What type of projects do you normally fund?
- 2) Please walk me through how funding proposals are evaluated.
- 3) How would you describe a successful project proposal?

#### *Ideas About Virtual Reunification*

- 1) In the past, your institution has funded projects that attempted to present an integrated set of dispersed collections online. What criteria had they met to qualify for funding support?
- 2) Were there considerations or expectations that had to be re-evaluated and adjusted, or even new mechanisms that needed to be introduced, in response to your agency's experiences in funding those reunification projects?
- 3) Would your institution continue to support projects of this nature? What would you consider a fundable reunification project?

#### *Additional Comments or Feedback*

- 1) I would appreciate any additional comments or feedback that may be of interest in this study.

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