Care and Preservation of Cultural Heritage: Bridging the Fields of Conservation and Collections Management

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Care and Preservation of Cultural Heritage: Bridging the Fields of Conservation and Collections Management

By

Veronica Rose Rascona
B.A. in Art History, Arizona State University, 2013

A thesis submitted to the Faculty of the Graduate School of the University of Colorado in partial fulfillment of the requirement for the degree of Master of Science
Department of Museum and Field Studies
2018
This thesis entitled:
Care and Preservation of Cultural Heritage:
Bridging the Fields of Conservation and Collections Management
written by Veronica Rose Rascona
has been approved for the Department of Museum and Field Studies

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J. Patrick Kociolek

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Maggie Mazzullo

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Laura Elliff Cruz

Date________________

The final copy of this thesis has been examined by the signatories, and we find that both the content and the form meet acceptable presentation standards of scholarly work in the above mentioned discipline.

IRB protocol # 17-0487
Abstract

Rascona, Veronica Rose (M.S., Museum and Field Studies)

Care and Preservation of Cultural Heritage: Bridging the Fields of Conservation and Collections Management

Thesis directed by Professor J. Patrick Kociolek

This thesis outlines the history of the professionalization of the care of cultural heritage (i.e. art, anthropological, archaeological and ethnographic objects) by focusing on the fields of conservation and collections management. It examines differences and overlaps between the scopes and training for these two professions, the effects of changing art practices on traditional notions and methods of preservation, and avenues for connecting collections managers with conservators and conservation resources. Interviews conducted with working professionals in these fields uncover perspectives on collections care, training and resource needs for collections managers working in institutions without conservation staff, perspectives of conservation professionals on providing conservation training for non-conservators, and methods for connecting the two fields in ways that are considerate of ethics and values tied to preserving cultural heritage. Finally, suggestions are provided for how to increase shared knowledge between the fields, and consequently to improve collections manager’s access to appropriate conservation resources.
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I would first like to acknowledge the museum and collections care professionals who, by voluntarily contributing their time and expertise, truly made this thesis possible:

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**Introduction**

**Defining Museum Collections Care**

According to the National Standards and Best Practices for U.S. Museums, one of the seven characteristics of excellence is collections stewardship, which is broken down into a series of standards to which a museum should adhere. These standards essentially outline that “Possession of collections incurs legal, social and ethical obligations to provide proper physical storage, management and care for the collections and associated documentation, as well as proper intellectual control.”¹ While there are a few different collections care professions that focus on these tasks, sometimes these lines are blurred and, especially in smaller museums, a single person might take on all of these responsibilities. The three primary collections care professions include collections manager, registrar, and conservator, and are defined below:

“Registrars are responsible for risk management and documentation of the collection. They develop and maintain record systems and are often responsible for storage systems. Registrars are academic generalists. […]”

“Collection managers form the hands-on problem-solving component of the museum staff. They move objects, carry out re-housing and relocation projects, and may oversee basic housekeeping, IPM [Integrate Pest Management], packing, and preparatory staffs. They often have graduate degrees in museology. […]”

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¹ “National Standards and Best Practices for U.S. Museums” (The American Association of Museums, 2008), Pg. 44.
“Trained conservators do all invasive work on museum collection objects. When on staff, they oversee the physical care of collections. They are highly trained in chemistry and practical techniques for repair and restoration.”

This paper focuses on these three positions as they relate to art and anthropological objects and corresponding museums. Thus art conservators, like collection managers, focus on the physical preservation and care of cultural heritage, but are trained to repair and treat damaged objects that fall within a certain area of concentration (i.e. paper, textiles, wooden artifacts, etc.). Collection managers also focus on the physical preservation and care of collection objects, but work more on the side of preventative preservation, and training is applicable to more general collection types (i.e. art, anthropology, paleontology, etc.). Registrars are less hands-on with collections objects, and instead focus more on maintaining documentation (physical and digital) related to the insurance, exhibition, and loaning of museum collections. Maintaining this kind of control over the intellectual integrity of collections does, however, fall into the realm of preventative care. Thus registration and collections management are somewhat intertwined. The positions of registrar and collections manager share similar goals and are so closely connected that they tend to be separated out only at larger museums, where larger collections require more attention in all regards. Thus the physical care of collections becomes one task, and the documentation and logistical oversight of loans, insurance, etc. becomes another, resulting in separate collections management and registration departments.

At smaller museums, however, where collections are smaller and budgets are tighter, all aspects of the management of collections fall to one section or position (they might be given any number of titles including the Curator of Collections, Collections Manager, or Collections

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Manager/Registrar to name a few) that is in charge of not only the physical preservation of museum collections, but the record keeping associated with insurance, loans, accessions and deaccessions, as well as the management of the digital database. Because collection managers and registrars working with art and anthropological collections require similar levels of training (see Table 1), combining collections managerial and registrarial duties is fairly easily done. Conservation professionals, on the other hand, while similar to collection managers in their dedication to the preservation of collections objects, require highly technical training that is specific to a certain area of material science. Conservators specialize in a category of object, and educational programs are centered in conservation rather than museology and require a technical knowledge of materials and chemistry, as well as basic knowledge or collaboration with other fields such as “conservation science, computer science and digital imaging, museum curatorship, exhibition design, or archival studies.”

Conservation work thus remains distinct from the other two collections care professions due to the specificity of training that is required. Its similarity, however, with collections management does pose problems in defining the line between basic collections care, and direct intervention. My focus in this paper is to illuminate the primary differences between conservation and collections management as they relate to art and ethnographic collections. I will illustrate overlaps and clear differences between the fields so as to better define the spheres they each occupy as well as to show how the two fields can be working more closely together to achieve their shared goal of preserving cultural heritage.

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### Table 1: Comparison of the Fields of Conservation, Collections Management and Registration

This table shows some of the overlap and the primary differences between scopes, standard training, and working environment for the three different collections care fields. + and * symbols show overlap within categories between the professions.

3. Ibid.
5. Ibid.

<table>
<thead>
<tr>
<th>Scope</th>
<th>Conservation</th>
<th>Collections Management</th>
<th>Registration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>*Physical preservation and care of objects. Performs invasive repair and restoration treatments on museum collection objects. Specialization in a particular type of object.</td>
<td>+Responsible for risk management and documentation of the collection. *Physical preservation and care of objects. Oversees movement and storage of objects, carries out re-housing and relocation projects, as well as basic housekeeping, IPM, and packing.</td>
<td>+Responsible for risk management and documentation of the collection. Responsible for organization and maintenance of forms, legal documents, files and retrieval system associated with insurance, acquisitions, accessions, loans, cataloguing, etc. Courier artwork and arrange shipping/transport for loans.</td>
</tr>
<tr>
<td>Standard Training</td>
<td>Formal conservation training (graduate degree) or equivalent including apprenticeship. Skills/advanced training in art history, chemistry, studio art, and related concentration.</td>
<td>*Graduate degree in museology, or BA in related field plus specialized training and/or two or more years of related experience.</td>
<td>*BA in related field plus specialized training and/or two or more years of related experience.</td>
</tr>
</tbody>
</table>
Before further defining each of these professions, it is necessary to define the following terminology that is used when discussing collections care: preventative conservation, preservation, restoration, reconstruction, stabilization, treatment, and conservation. Definitions naturally have some variation between sources, but those given below are generally accepted, and are those to which I am referring throughout this paper.

**Preventative/Preventive Conservation** (also called preventative preservation): “The mitigation of deterioration and damage to cultural property through the formulation and implementation of policies and procedures”\(^4\) that address areas that have the potential to cause damage (such as environmental and storage conditions, or procedures for handling and use). It is the framework established to minimize physical interventions with objects, and “uses techniques that concentrate on the surroundings of the object and not the object itself”.\(^5\)

**Preservation**: Involves preventative conservation and seeks to maintain the existing condition of an object for as long as possible.\(^6\) It can involve direct, physical interventions with objects, but the resulting object does not change in its physical appearance.

**Restoration**: A type of intervention that produces noticeable changes to an object. It aims to return an object to a former state while attempting to stay true to the original material.\(^7\)

**Reconstruction**: A type of intervention that produces noticeable changes to an object. It also aims to provide clear evidence of a former state of an object; however, it is less

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\(^6\) Muñoz Viñas, Pg. 20.

\(^7\) *Code of Ethics and Guidelines for Practice*, 3rd ed. (Ottawa, Ontario, Canada: The Canadian Association for Conservation of Cultural Property and The Canadian Association of Professional Conservators, 2000), Pg. 15.
concerned with retaining the original material and reconstructed objects may contain little to no original material.  

**Stabilization:** The American Institute for Conservation of Historic and Artistic Works (AIC) defines this as “procedures intended to maintain the integrity of cultural property and to minimize deterioration.” In this paper, stabilization more specifically describes a reactionary step taken once damage to an object has occurred; stabilization may involve some level of intervention, but is concerned with returning an object to a stable condition rather than to its original or former state.

**Treatment:** AIC defines treatment as “The deliberate alteration of the chemical and/or physical aspects of cultural property, aimed primarily at prolonging its existence.” Stabilization, reconstruction, and restoration are examples of types of treatments.

**Conservation:** Conservation is both an action and a profession. The Canadian Association for Conservation of Cultural Property (CAC) defines conservation as “All actions aimed at the safeguarding of cultural property for the future. […]It aims for] the least possible intervention. […]and includes] examination, documentation, preventive conservation, preservation, treatment, restoration and reconstruction.” It involves different types of treatments aimed at preserving cultural property, and is therefore inclusive of all of the above terms.

The CAC further defines the purpose of conservation as being to “study, record, retain and restore the culturally significant qualities of the cultural property as embodied in its physical and chemical nature.” Conservation aims for the least possible intervention, but considers why

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8 Code of Ethics and Guidelines for Practice, Pg. 14.
9 “Conservation Terminology.”
10 Code of Ethics and Guidelines for Practice, Pg. 13.
11 Code of Ethics and Guidelines for Practice, Pg. 13.
and for whom a treatment is being performed and acts accordingly, meaning at different times treatments may be at the level of stabilization, restoration or reconstruction. Although these definitions help to clarify the different types and levels of intervention related to the care of cultural property, uses vary slightly from source to source. For example, AIC defines restoration as “Treatment procedures intended to return cultural property to a known or assumed state, often through the addition of nonoriginal material,” and does not list the term reconstruction on their Definitions of Conservation Terminology webpage. Admittedly, preservation and conservation are quite similar: both involve preventative conservation as well as direct intervention with objects, and both seek primarily to maintain the existing condition of objects. However, the terms are not necessarily interchangeable, and often are used in very different ways. One reason for this is that conservation implies an entire field of practice (in fact, AIC’s definition of conservation describes the profession), while preservation relates to care of materials in general. There is a great deal of literature dedicated specifically to outlining the difference between the terms, but an explanation of the terms given by Frank Matero in an article from a 2000 issue of The Getty Conservation Institute Newsletter helps to further explain the difference between the two:

“In certain places, including the United States, the terms preservation and conservation have come into the professional language as distinct concepts. Explicit and unique to the definition of preservation is the notion of retaining the status quo or the means by which the existing form, integrity, and materials of a work or place are maintained and

12 “Conservation Terminology.”
deterioration is retarded. Conservation, in the same context, has been relegated to mean
the whole spectrum of technology applied to safeguarding cultural heritage.”

Preservation and preventative conservation, then, are the steps taken to prevent damage to
objects while stabilization, reconstruction and restoration are types of treatments that may be
taken in response to damage that has occurred to an object. Conservation can and does involve
all of the above, but is carried out by a specific collections care professional, the conservator.

The History of Conservation and Collections Management

While collections management and conservation are different fields, they arose from the
same place: a growing concern for the preservation of objects of cultural heritage. In his book,
*Contemporary Theory of Conservation*, Salvador Muñoz Viñas argues that conservation
officially began sometime between the nineteenth and twentieth centuries. Ideas about
standards and ethics related to the restoration of artwork were around much earlier, however. The
first evidence of an attempt at setting standards for the conservation of cultural heritage was the
*Capitolato* written in 1777 by Pietro Edwards, the Director of the Restoration of the Public
Pictures of Venice; the document sought to prevent excessive restoration and contained “A set of
norms to prevent the excess committed by the restorers of Venetian paintings.” The *Capitolato*
was unique for its time, however, and it wasn’t until the mid to late 1800s that additional
writings on conservation theory began to appear. English draughtsman and art writer John
Ruskin, and French architect Eugène Violette-le-Duc were well-known during this time for their
stances on conservation, and even today continue to represent the two extremes of conservation

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15 Muñoz Viñas, Pg. 2.
practices. Ruskin believed that objects became valuable because of their visible signs of history, while Violette-le-Duc believed that “the most perfect state of a conservation object is its original state.” While the two are recognized for their contribution to the discussion of conservation, no conservator today really operates at either extreme. Rather, conservation professionals follow more closely the principles set forth by the Italian architect, Camillo Bioto (1836-1914) who sat somewhere in the middle of Ruskin and Violette-le-Duc; he was not against restoration, but argued that restored parts of objects should be easily distinguished from original parts, thus allowing for “honest restorations.” Bioto’s vision reflects a belief that objects should not be restored in order to trick viewers into believing that they are seeing an object in its original state, but rather that the purpose of restoration is to provide viewers with a full image of the original state of an object while at the same time allowing them to see the reality of how it has changed over time.

Discussions surrounding the conservation of cultural heritage were coming to the forefront around the same time that museums were entering the public sphere. Pietro Edwards Capitolato is evidence that the value of the preservation of certain objects was being considered as early as the 18th century, around the same time that widespread educational interest in the sciences and culture began transforming the private collections displayed as cabinets of curiosities into resources for scholarly research. Although discussions surrounding conservation were happening as early as the 1700s, according to Frank Matero, the field of conservation did not officially emerge until the 1930s/1940s when preservation became concerned “with the study of the underlying causes of deterioration” and when we began to see “the development of

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16 Muñoz Viñas, Pg. 4.
17 Muñoz Viñas, Pg. 5.
18 Muñoz Viñas, Pg. 5.
museum conservation laboratories and specialists”. In support of this statement, Salvador Muñoz Viñas notes that the first charter for the normalization of conservation practices was the Athens Charter, published in 1931. The field continued to develop through the 1900s, and according to the AIC’s Code of Ethics and Guidelines for Practice, it was in 1961 that “The first formulation of standards of practice and professional relations by any group of art conservators was produced by the IIC-American Group (now AIC) Committee on Professional Standards and Procedures”.

While there are professional organizations, charters and codes of ethics specific to the field of conservation, there are not such resources for collections management; rather, standards for collections management are usually tied to best practices for museums, and professional organizations tend to address collection types or museums in general. Professional standards for collection managers are instead outlined in documentation designed to address museum professional practices in general, such as in the document National Standards and Best Practices for U.S. Museums (2008), put forth by the American Alliance of Museums (AAM). This document outlines a number of criterion for museums aspiring to achieve preeminent collections care practices, and it addresses areas such as environmental monitoring, preventative conservation, the need to balance preservation with the access needs of museum communities, and the base requirements for collections management policies. The document Professional Practices in Art Museums (2011) put forth by the Association of Art Museum Directors (AAMD) supports these standards, as well as emphasizes the reasons for the preservation of cultural heritage in terms of the importance of museum collections to surrounding communities.

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20 Muñoz Viñas, Contemporary Theory of Conservation, Pg. 6.
and museum patrons, noting that collections exist for their current and future stakeholders, and thus should be made as accessible as possible, while maintaining their preservation. While collections management policies are necessarily tailored to each individual institution based on their mission as well as the size and scope of their collection, they should be guided by the standards set by AAM and AAMD. Nevertheless, these documents are only guidelines that museums should follow if they hope to be leaders in the field or if they want to achieve accreditation; they are not requirements that must be followed in order to qualify as a museum. The fact that collections management best practices are described within the authority of the museum demonstrates the dependence of the position upon the institution; the position of collection manager does not exist outside of the museum, while conservators can operate independently. The general field of collections preservation grew out of a mounting societal recognition of the importance of safeguarding cultural heritage, and subsequently branched into these more specific areas with the rise of museums. Collections management, then, fills the museum-specific need for a care-taker with a general knowledge of collections care who can manage large, diverse collections that generally require attention at the level of preventative preservation, while the field of conservation addresses the need for experts in treating specific materials who are called upon when present damage threatens the continuing existence of objects of cultural heritage. According to AIC’s definition of a conservator:

“A conservator may be trained at a conservation graduate training program or by lengthy apprenticeship with experienced senior colleagues. Working in museums, other cultural institutions, research labs, and in private practice, conservators combine unique skills gained through ongoing study and advanced training in art history, science, studio art,

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and related disciplines to care for and preserve our tangible history. Because of the increasingly technical nature of modern conservation, conservators usually specialize in a particular type of object, such as: paintings, works of art on paper, rare books, photographs, electronic media, textiles, furniture, archaeological and ethnographic materials, sculpture, architectural elements, or decorative arts.”

This definition helps to further illustrate how conservation work differs from collections management by explaining the unique training required for the field, the specificity of their practice, and the ability for conservators to work in a variety of settings, museum or otherwise. While conservation is its own field with its own set of training requirements, it does not happen in a vacuum. Salvador Muñoz Viñas notes that “[…] the fact remains that conservation as usually understood is not just performed by conservators. […] Conservation, in this broad sense, has diffuse boundaries, since it may involve many different fields with a direct impact on the conservation object.”

Muñoz Viñas’s perspective shows that the lines between conservation work and preservation work carried out in other, related professions (such as collections management) can at times be unclear. Conservation professionals treat objects in response to the conservation goals of the institution or client they work for, and consequently operate alongside others with similar goals of preservation. Conservators interact with many other professionals who deal with cultural heritage including architects, art historians, archaeologists, and scientists, but who have different areas of expertise. In order for there to be successful collaboration and shared understanding between these parties, then, conservators have a responsibility to share their unique area of expertise. Consider this in terms of a specific object that needs conservation work: if a Roman sculpture in a museum collection is discovered to need conservation work, the

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24 Muñoz Viñas, Contemporary Theory of Conservation, Pg. 10.
conservator does not work alone but interacts with the curator of the collection who best knows the historical context and value of the object, the collections manager who best knows the daily environment in which the object exists as well as its movement history, and the museum director whose role it is to look beyond specific objects to ensure actions support the goals of the museum as a whole. Furthermore, together this group must consider the community who is affected by or benefits from the continued maintenance of that object, from researchers, to everyday visitors, to the originating community in Rome, Italy. Frank Matero supports the notion that conservators must work alongside and in partnership with other experts who have a vested interest in cultural heritage, stating that “The basic tenets of conservation are not the sole responsibility of any one group, rather, they apply instead to all those involved in the care and management of cultural heritage, and they represent general standards of approach and methodology.”

He further emphasizes the need for conservators to recognize the “cultural and community ownership” of such objects, and advocates that conservators should welcome community input when making conservation decisions.

AIC as an organization evidences this philosophy: in addition to conservators it is comprised of educators, scientists, students, archivists, art historians, collection care professionals, as well as institutions and their collaborative vision is stated in the organization’s mission:

“The American Institute for Conservation of Historic & Artistic Works (AIC) is the national membership organization supporting conservation professionals in preserving cultural heritage by establishing and upholding professional standards, promoting

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26 Matero, Pg. 9.
research and publications, providing educational opportunities, and fostering the exchange of knowledge among conservators, allied professionals, and the public.”

AIC’s Code of Ethics and Guidelines for Practice also supports the expansion of conservation education beyond the field itself; the guidelines section of the code affirms the need for the conservation professional to recognize preventative conservation as “the most effective means of promoting the long-term preservation of cultural property,” and acknowledges that this can be done through the education of others on best practices for handling and caring for objects. AIC specifies that conservators have a responsibility for contributing “to the evolution and growth of the profession […] by such means as continuing development of personal skills and knowledge, sharing of information and experience with colleagues, adding to the profession’s written body of knowledge, and providing and promoting educational opportunities in the field.”

Thus, it is not only in support of object preservation that collaboration is encouraged, but sharing information and promoting education of preservation practices is seen as a tool for the betterment of the profession of conservation as a whole. At the same time, the guidelines recognize the importance for the conservator to maintain authority over the work they do so as to uphold the standards of conservation. Conservators should do this through obtaining written permission of whomever the work was done for prior to publishing related information and should not subcontract out work unless they will be supervised or unless they have definite confidence in the subcontractor. Additionally, maintaining documentation of everything that goes into a treatment or examination is an essential part of conservation practice; this should be done in order to ensure that future users of the object will know what was done to it in case

28 “AIC Code of Ethics and Guidelines for Practice.” Pg. 8.
29 “AIC Code of Ethics and Guidelines for Practice.” Pg. 5.
future treatment is required, to contribute to the body of understanding of practices and materials within the field of conservation, and to ensure accountability. As far as the type of documentation that should be kept, AIC suggests that:

“During treatment, the conservation professional should maintain dated documentation that includes a record or description of techniques or procedures involved, materials used and their composition, the nature and extent of all alterations, and any additional information revealed or otherwise ascertained. A report prepared from these records should summarize this information and provide, as necessary, recommendations for subsequent care.”

Again, conservation and collections management have the same primary goal, to preserve material culture. The differences between these fields is the level of training, and the ethical responsibilities as noted in related codes of ethic or standards for best practices. Between the AIC Code of Ethics and Guidelines and AAM’s National Standards and Best Practices for U.S. Museums, however, there are overlaps in expected standards for collections care as it applies to both conservation and collections management—maintenance of documentation, the importance of preventative conservation, and knowing when it is appropriate to share or withhold information related to collections objects are important in both fields. Both professions involve training in preventative conservation, and both are taught to aim for minimal intervention when treating objects. Conservators, however, are masters of a particular area; they know how best to prevent or respond to damage that occurs to materials in their area of concentration, which includes knowing which chemicals should or should not be considered for treatments. Collection managers, on the other hand, are generalists; they are tasked with caring for a range of material

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30 “AIC Code of Ethics and Guidelines for Practice.” Pg. 9.
types. Consider a collection manager at an art museum: their collection could include anything from bronze sculpture, to pastel drawings, to oil paintings, to digital media, to woven textiles. A collection manager of such a diverse collection cannot be expected to know the proper conservation treatments for the many different types of damage that can occur within each of these categories of objects. They do, however, need to know which objects are most susceptible to damage, what steps to take to prevent that damage, and how best to address damage when it occurs (which could mean contacting a conservator, or could mean that the collections manager provides basic stabilization for the object). Where, then, does this leave collection managers working at institutions with limited access to professional conservators?

Changing Art Practices

In the early phases of the field of art conservation, artworks were cleaned, repainted, and reconstructed based upon the specific project, desires of the client, and current styles rather than on any overarching system of ethics or standards. Although today the desire of the client is still an important consideration when conserving works of art, ethics and standards dictate that the conservation professional must endeavor to stay true to both the original materials used in an artwork, as well as to the maker’s intent. Initial debates on conservation practices focused on whether and to what extent objects should be conserved, and it wasn’t until the 1900s that ‘scientific conservation’ and consideration of the artist’s intent became areas of focus in conservation work. In 1963, Italian art historian Cesare Brandi published a text defending the artistic value of conservation objects and argued that aesthetic considerations should be part of the conservation discussion. Scientific conservation, on the other hand, advocates that an object’s

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material constituents are what establish its true nature, and the practice looks to principles and methods of scientific research and discovery, as well as objective evidence for making conservation decisions, rather than subjective preferences. In reality, conservation is a struggle to find a balance between these ideas – maintaining the integrity of the materiality of an object against the object’s original meaning or intention of the maker – as well as the additional factor of the needs of current stakeholders. Cultural property is preserved because it has been deemed to have some inherent value to society, and this value cannot be overlooked when carrying out conservation work. After all, preservation is not an end in itself, but is done in order to provide continued access to the information, history, and value that is encoded in the object, thus prior to any conservation treatment, the conservator must consider why and for whom the treatment is being done. It is important to recognize that the end goal is not always to reveal the ‘truth’ of an object – rather, conservation is carried out on objects that are regarded as valuable, and treatments should occur with an awareness of the effects they might have on the use of objects by current and future stakeholders.

Considering the point at which an object is determined to be damaged and in need of conservation work, we can again see that there is necessarily some value judgment involved in the process. Furthermore, this process can vary greatly depending upon whether the object is considered fine art or an anthropological object. In her book *Preserving What is Valued*, Miriam Clavir discusses the fact that ethnographic conservation seeks to preserve an objects’ life history up until the time it was collected, whereas art conservation is more focused on preserving objects

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33 Muñoz Viñas, Pg. 90.
36 Muñoz Viñas, Pg. 192.
in the state they were in at the time of their creation.\textsuperscript{37} Determining which objects fall in which category is not straightforward, but again requires subjective judgement that continues to consider the areas discussed above (i.e. material choice, maker intent and value to stakeholders).

These decisions become even more muddled when we consider the use of new materials in art-making that began with the modern art movement in the 19\textsuperscript{th} century\textsuperscript{38} and which has continued in contemporary art practices. Ephemeral art, installation work and digital media are all examples of variable media, or artworks that have the propensity to change over time, and their inconsistent nature is driving conservation professionals to question current notions about preservation. Ephemeral art, for instance, is in direct opposition to the preservation mindset as it is created with the intent that it will deteriorate over a certain amount of time. An example of this is the eight-foot tall wax sculpture titled \textit{Standing Julian} by artist Urs Fischer that was on view at the Whitney Museum of American Art in 2016. The sculpture doubled as a massive candle and burned every day over the course of the exhibition, \textit{Human Interest: Portraits from the Whitney’s Collection}. Once melted, the candle was discarded, and that same object can never be exhibited again. However, the sculpture can be recast and re-exhibited, providing new viewers with the same experience, if not the same exact object. Typically, conservation aims to prevent damage, or to repair damage that has occurred to a work of art; in this case, such an approach is obviously not possible. Thus, conservators as well as collections managers are deliberating about new ways to approach the preservation and conservation of ephemeral art— with a piece such as this, taking images of the artwork at different stages of its deterioration, or video recording the deterioration of the object are examples of methods that can be used to preserve the object’s life-cycle, as well as serve as evidence of the way the artist intended their audience to experience the piece.

\textsuperscript{37} Clavir, “Conservation Values and Ethics.” Pg. 33.
There are other types of contemporary artwork that are not intentionally made to be ephemeral but end up being so due to the material choices of the artist. An example of this is the situation described by Glenn Wharton of his treatment of the piece *Building Steam –190* by Donald Lipsinki. The piece consisted of a glove stretched around the flange of a porthole, and filled with rice. At one point, the rice became infested with cigarette beetles and Wharton was asked to conserve the object. After initial research, Wharton consulted the artist and the owner about avenues for conservation, and together they decided the best option would be to replace the infested rice with fresh rice that was the same type as the original, but that this time around Wharton would put the rice through a freezing cycle in order to kill any larvae or insects that may have been present. However, a few years after the treatment, the rice again became infested, and again the artist was consulted. This time around, the artist suggested replacing the rice with plastic pellets (something the artist had considered using at the time the piece was first created). Although Wharton was hesitant to introduce a new material in the name of preservation, the owner was on board with the decision and the treatment proceeded. This procedure is an example of original materials being forfeited in favor of preserving the image of the piece.

Wharton’s hesitance in carrying out the procedure is evidence of the conservation mindset that the original material is inherently valuable to the continuing consistent meaning of the piece. However, his decision to use a new material to ensure that the treatment would last shows the how important the voices of the artist and owner can be in discussions surrounding conservation.

An opposing viewpoint emerges in a feature piece written by Florence Waters and published on Christie’s website. The piece is titled “From fruit to frozen blood — 7 issues in the conservation of contemporary art” and discusses the ethics of taking artist wishes into account.

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when it comes to ephemeral works of art.\textsuperscript{40} In the article, Christian Scheidemann, Senior Conservator and President of Contemporary Conservation Ltd, argues that to replace original material in an artwork with something different “destroys the essence of [the] artwork.”\textsuperscript{41} Glenn Wharton backs this up by saying that “…material replacement is in direct conflict with the conservation ethic of respecting the integrity of the authentic object.”\textsuperscript{42} But when material replacement is done in consultation with the artist, does not the voice of the artist represent authenticity? Installation work poses similar problems; often, materials are so fragile that they need to be recreated by the artist for each iteration of the piece’s exhibition, or they need to change their layout due to the differences in exhibition spaces. Again, if the artist is involved in this process, is the original meaning really affected?

These and many other similar questions are still unanswered regarding the best approach to the conservation of ephemeral art. Other questions surrounding these types of artwork include whether preservation, which is in direct contradiction to intentionally ephemeral art, should even be carried out on such artwork, and whether making a replica should be considered a valid alternative.\textsuperscript{43} Waters reminds us just how important the meaning of the artwork is when considering approaches for conservation treatments by saying that “If the meaning of the work defines the code of conservation practice, then the same material might be treated very

\textsuperscript{41} “From Fruit to Frozen Blood — 7 Issues in the Conservation of Contemporary Art | Christie’s.”
\textsuperscript{42} Wharton, “The Challenges of Conservating Contemporary Art.” Pg. 5.
differently in two different art works,” and the only real solution for now is further research into contemporary art practices and conservation ethics.\footnote{From Fruit to Frozen Blood — 7 Issues in the Conservation of Contemporary Art | Christie’s.}

The preservation of digital art is another area of contemporary art that is growing recognition and has given rise to new questions of preservation standards for collection care specialists. With digital-born artwork, the question is not only how to preserve something, but what exactly should be the focus of preservation. Digital-born artwork can involve everything from the display equipment, to the original digital files, to the original hardware containing these files and a collections care specialist must consider all of these pieces when determining methods for the preservation of the material. Collections care specialists are currently having discussions on the best approaches to this issue; at the 2017 biannual meeting for the Association of Registrars and Collections Specialists, Collections Manager of Photography at the Metropolitan Museum of Art, Meredith Reiss, gave a presentation on how the MET is attempting to tackle these questions considering digital acquisitions and the unique challenges they present to registrars and collections managers at museums that do not have the expertise of a media conservator. Her presentation addressed some of the concerns about working with this type of artwork, such as inherent instability, variation in display with each iteration, the ever-continuing obsolescence of certain equipment and technology, and the cost for storing digital files. Reiss provided suggestions such as gathering information related to care and display procedures from artists in the pre-acquisition phase, and condition reporting on both the physical components and files using certain hardware, and that iteration reports should be done to document each time an object is displayed. Her talk highlights the many different considerations that go into the preservation of this new type of artwork, as well as showed that it is not only possible, but
extremely useful for collections managers to be engaged in learning and discussing maintenance of digital born media.

Because each of these categories of artwork presents such unique preservation challenges, one of the recurring suggestions that area experts are proposing is consultation with artists. The idea here is that the integrity of an object is linked not just to its original materials or appearance, but to the artist’s intent. Furthermore, collections specialists are arguing that interviews with artists, their material choices and the reasons behind these choices should be documented and published to public platforms, such as the International Network for the Conservation of Contemporary Art, thereby broadening the discussion and welcoming collaborative thinking. The hope, as expressed by Oscar Chiantore and Antonia Rava in *Conserving Contemporary Art: Issues, Methods, Materials, and Research*, is that by “knowing the actual materials, conservation and preservation can be more effective.”

Generally, approaches to the conservation of contemporary art should be based in the same methodological considerations that are used when dealing with traditional works. However, there is no one method that can be applied to all cases; the framework remains, but each situation must be looked at and assessed individually. So where does this leave museums containing art and ethnographic collections, but lacking conservation staff? Many museums cannot afford conservation staff and often just have a collections management team, or sometimes just a collections manager supported by part-time staff or volunteers. But conservation issues occur in any collection, and museums without conservation staff still need to address these issues. The primary goal should be to make sure that objects of cultural heritage

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45 Chiantore and Rava. Pg. 15.
are being cared for even if access to professional conservation work is unachievable. Some of the approaches to preservation that have been outlined above are not out of the scope of a collections manager’s work; preventative preservation is certainly something that a collection manager should focus on, but certain types of stabilization can also be desirable and achievable when professional conservation work is not.

As we can see, changing art practices have forced preservation specialists to reconsider what preservation means. These new ideas affect all preservation professionals and even further blur the lines between the fields of conservation and collections management. In light of these shifts in thinking, and considering AIC’s support for the sharing of information regarding preservation practices, collection managers should feel encouraged to use conservation resources as avenues for improving their own knowledge and skill set when it comes to preserving collections. Nevertheless, anything that is done must be done while considering these two principles of conservation:

1) “Intervention with regard to an object should go no further than is indicated from the evidence pertaining to it […]” and,

2) “Removal of anything that comes with the object, including from its surface, constitutes irremediable alteration if it is subsequently shown that the removed feature was part of the object’s integrity.”

Collections management training may approach collections care more generally than conservation training, but that does not mean that collection managers are completely barred from practicing any treatments within the realm of conservation. In considering the different backgrounds and training for collection managers and conservators, and the fact that many

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48 Clavir, “Conservation Values and Ethics.” Pg. 34.
museums do not have both on staff, it was thought to explore how collections managers at institutions without conservation staff address conservation issues, and whether working conservators are willing to share some of their technical expertise with these collection managers. Some of the questions that drove this exploration include: 1) What conservation techniques could help collection managers at institutions without conservation staff? Are there specific techniques that collection managers want to learn? 2) Is there a difference of opinion between the two professions about what is acceptable for a collections manager to carry out in terms of conservation? 3) Are there conservation resources already available to collection managers, and are collection managers aware of what is available? and 4) What more is needed? In this thesis, interviews were held with six conservators and five collection managers who care for art and/or anthropological objects in an attempt to answer these questions. The resulting discussions provide some real-world insight on the scopes of these professions, as well as revealed some of the enthusiasm and hesitations toward bringing these fields closer together.

\footnote{At the time this was published, the organization was called the American Association of Museums.}
Interviewing Collections Care Professionals

Methods

The list of art- and anthropology-focused collections managers and conservators who were interviewed was created based on personal connections, recommendations from committee members, and by researching respected professionals in the American Southwest region. This resulted in a selection of people throughout Colorado and Arizona. Not only did this make it possible to meet with the interviewees in person, but by keeping the list of professionals to a particular region, the hope was to obtain a deeper understanding of conservation and collections care within a particular locality. Especially in the Southwest, as opposed to the coasts, there are many museums without conservation staff that are in isolated small towns. In places like this, it can require more effort and cost to bring in outside conservators for consultation or treatment, thus these museums could really benefit from increased access to information and resources about basic-level conservation work.

Professionals with their focus in both art and anthropological objects were chosen because of the overlap that often occurs between these types of objects within museum collections; many art museums do not only have art objects in their collections, but also prehistoric objects that straddle the line between art and anthropology. For example, the American Indian Art collection at the Denver Art Museum contains objects that were created to be viewed or interacted with as works of art (such as paintings on canvas, outdoor sculpture, or contemporary glasswork), but also contains objects that, although beautiful, were created for actual use or wear (such as moccasins or cradle boards). Although this second group of objects is in an art collection, they fall within the realm of anthropological objects in terms of their original
purpose. In addition to the overlapping of objects between these categories, the same types of base materials – such as ceramics, glass, wood, metal, or textiles – are used in the creation of both art and anthropological objects, with further plays into their blurred categorization. Thus, because art conservators specialize in a material type rather than a certain collection (for example, conservators might specialize in wood, textiles, or paper and thus may work with objects in both art and anthropological collections), it is likely that certain conservators will end up working with both categories of objects, as do a number of the conservators interviewed for this thesis. The collection managers and conservators that were interviewed are:

1) Christina Cain, Anthropology Collections Manager at the University of Colorado Museum of Natural History (CUMNH) (Boulder, Colorado).

2) Britt Scholnick, Associate Collection Manager and Registrar at the University of Colorado Art Museum (CUAM) (Boulder, Colorado).

3) Lindsey Vogel-Teeter, Curator of Collections at Pueblo Grande Museum and Archaeological Park (PGM) (Phoenix, Arizona).

4) Arleyn Simon, Associate Research Professor and Collections Manager at the School of Human Evolution and Social Change at Arizona State University (ASU) (Tempe, Arizona).

5) Stefani Pendergast, Assistant Collections Manager at the Denver Art Museum (DAM) (Denver, Colorado).

6) Beth Heller, Conservator in private practice and owner of Beth Heller Conservation LLC (Denver, Colorado). Her focus is works of art on paper and historic documents.

7) Nancy Odegaard, Conservator, Head of Preservation Division, Arizona State Museum (Tucson, Arizona). Her primary focus is movable cultural heritage under the label of
ethnology and archaeology; she also works with fine art, paleontology, human remains, archaeological sites and monuments, as well as rock art.

8) Kate Moomaw, Associate Conservator of Modern and Contemporary Art at the Denver Art Museum (Denver, Colorado). Her focus is modern and contemporary objects and variable media.

9) Judy Greenfield, Objects Conservator and Sole Proprietor for Mountain States Arts Conservation (Denver, Colorado). Her focus is objects, which encompasses archeological and ethnographic material as well as modern and contemporary pieces.

10) Jennifer Parson, Owner, Proprietor, and Conservator for Kala Conservation (Boulder, Colorado). Her focus is works of art on paper.

11) Paulette Reading, Owner and Conservator for Paulette Reading Textile Conservation LLC (Denver, Colorado). Her focus is textile conservation.

One additional collections manager was contacted for an interview, but was unable to participate, resulting in five collections managers verses six conservators being interviewed.

Once the list of professionals was created, two separate questionnaires were developed (one for collections managers and one for conservators) to drive discussions about common types of damage to collection objects, current preservation techniques practiced by both groups, and desires to learn basic conservation treatments on behalf of collections managers or a willingness to teach such treatments on behalf of conservators. Because this project falls within the category of research involving human subjects, prior to contacting the list of interviewees, a project proposal (see Appendix A) was submitted to the University of Colorado Boulder’s Institutional Review Board for their approval. After approval (see Appendix B), the potential interviewees were contacted via email following a general script (see Appendix C). The questionnaires were
provided to interviewees along with the initial interview requests so as to ensure that all subjects were aware of the types of questions they would be asked before they agreed to participate.

Small modifications were made to the questionnaires after IRB approval in order to make certain questions clearer, and this was done without changing the nature of the original questions (for the original list of questions and the revised questions see Appendices IV and V respectively). During the in-person interviews, certain questions had to be slightly modified in a few cases; for example, because the conservator Kate Moomaw is on staff at the Denver Art Museum and does not do freelance work, the question “What do you charge for your services?” was not relevant. Thus, each interview is slightly different, but stays within the questionnaire framework, allowing for a method for comparison between each of the interviews (the fully transcribed interviews can be found in Appendices VI and VII).

The collections managers were interviewed first – it was decided that information about collections managers’ particular conservation interests and their current awareness and use of preservation and conservation resources should be gathered prior to speaking with conservators. This would allow the interviews with conservators to be informed with what collections managers are actually interested in learning. Interviews with collections managers involved a single meeting in which the scripted questions were posed, and the resulting conversations were recorded using a digital audio recorder. Interviews with conservators consisted of two parts: the first part was the same as that for collection managers, and began after all of the interviews with collections managers were completed. For some of the conservator interviews, conservators were informed ahead of time what collections managers were interested in, while for others this was mentioned during the interviews. The second part of the interviews with conservators involved visually documenting basic conservation techniques. Demonstrations were carried out by the
conservators and consisted of one or a few basic conservation treatments; they were visually
documented through video recording and step-by-step photographs. The conservators chose what
to demo, and they provided their own, unscripted commentary during the videos. The only
guidance they were given was to state their name and professional title at the beginning, and to
verbally walk-through the ‘what’ and ‘why’ of each step.

Two of the six conservators were not able to meet in person, but instead provided written
responses to the questionnaire (these were conservators Nancy Odegaard and Beth Heller). One
additional conservator (Paulette Reading) was not able to meet in person, but was able to speak
over the phone. Thus, these three conservators were not able to provide in-person
demonstrations; however, Kate Moomaw at the Denver Art Museum was able to set up
additional demonstrations given by other conservators on the DAM staff, so a total of six demos
were recorded. The purpose of the demonstrations was to see what types of conservation
techniques conservators were willing to demonstrate and allow to be circulated to collections
managers as a resource. Additionally, the information gathered from the video demos has
informed this thesis by showing the willingness of conservators to teach and share their skills,
the conditions under which they are willing to do so, and the types of treatments that collections
managers can feel comfortable attempting.

All of the audio recordings of the interviews were transcribed into Word documents;
some of these were typed out by hand while listening to the recorded audio, while others were
transcribed using the audio transcription software, Trint. All of the transcriptions went through
initial rounds of editing in order to fix grammatical mistakes made during transcription. They
were then edited again to remove superfluous words and utterances that distracted from content
(for example, words like “um” and “uh,” as well as repeated words and sentence fragments
where appropriate) and to provide clarity within given answers. The section below breaks down each of the answers given by interviewees for each question; some were best represented in table form, others in graph form, and others are abbreviated quotations. After going through all of the answers, some of the questions ended up not being relevant and thus have been excluded from the section below. Additionally, the organization of the questions and answers below does not match the questionnaires, but has been rearranged to group relevant questions/answers together. Short explanations are provided after each question or after batches of questions depending upon what was most effective for summarizing information.

**Survey Results**

**Collection Managers**

**Question:** Could you tell me about your background and training (please include how long you have been working in collections)?

<table>
<thead>
<tr>
<th></th>
<th>Bachelor’s Degree</th>
<th>Master’s Degree</th>
<th>Collections Experience</th>
<th>Additional Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christie</td>
<td>Bachelor’s degree in Anthropology,Collections work with Cultural Resource Management</td>
<td>M.S. in Museum and Field Studies</td>
<td>19 years Areas: Anthropology, archaeology, art, ethnographic, and history</td>
<td>Museum education, archaeology lab work</td>
</tr>
<tr>
<td>Britt</td>
<td></td>
<td>M.A. in Classics with a professional certificate in Museum and Field Studies</td>
<td>6 years Areas: Art, history and anthropology</td>
<td></td>
</tr>
<tr>
<td>Lindsey</td>
<td>Bachelor’s degree in History, Volunteer work in museums</td>
<td>Master’s degree in Public History Courses in collections</td>
<td>12 years Areas: History and anthropology</td>
<td>Museum-focused Master’s thesis</td>
</tr>
<tr>
<td>Name</td>
<td>Education Details</td>
<td>Management Experience</td>
<td>Additional Experience</td>
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<td></td>
</tr>
<tr>
<td>Arleyn</td>
<td>B.A. Fine Arts Anthropology concentration, minor in Secondary Education</td>
<td>M.A. in Anthropology, Education Theory and Fine Arts</td>
<td>20+ years Areas: Anthropology and archaeology</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PhD in Anthropology/Archaeology Fine art, education theory, archaeology field work</td>
<td></td>
</tr>
<tr>
<td>Stefani</td>
<td>B.F.A. in Pre-Art Conservation Courses in studio art, art history and chemistry</td>
<td>Master’s degree in Art History with a professional certificate in Museum and Field Studies</td>
<td>10+ years (including work in conservation) Areas: Art and ethnographic</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Art conservation and art shipping</td>
<td></td>
</tr>
</tbody>
</table>

**Table 2: Background and Training of Collections Managers.** Background and training of each collections manager broken out into degree type, years and type of collections experience, and additional, non-collections experience. Some information was pulled from answers to other questions. Cells are left blank where information was not provided.

**Question:** What types of material do you care for?

a. What is the most common material in your collection?

b. What are the most fragile materials in your collection?

Christie: “The types of material, overall, split between the archeology and ethnographic materials, the archaeology is […] mostly ceramics and stone with some perishables that are made out of plant fibers or feathers […] ethnographic is kind of everything […] from stone to wood to animal products – fur, feather, skin – to plant materials, glass, things like beads, plastic probably is in there as well […] metals, all of it. And then we also have archival materials, so paper, books, and that sort of thing.”

(a) “Probably going to be ceramics.”

(b) “[…] the actual base materials, the most fragile things tend to be probably things like feathers or hide sort-of things. Silk is definitely a major fragile material, but for our
collection it kind of comes into play how they've been dealt with. So the pottery glued back together with Duco in the 1920s is among the most fragile things in the collection because it's so easy for it to fall apart because of its restoration, not because of its inherent situation. And then our perishable archeology, which encompasses [...] plant and animal materials is probably, as a category, the most fragile stuff in the collections.”

Britt: “So, being a somewhat global collection, we have a lot of varied materials, we have everything from ceramics that [...] date to the Neolithic period, all the way to paintings and mixed media that contemporary artists are making.”

(a) “[...] easily works on paper. [...] we have a little over 8,600 objects in our permanent collection, and I want to say, like, 80 percent of them are works on paper.”

(b) “[...] by nature, ceramics are very fragile if you drop them. [...] ivory is probably the most fragile material. We do have a few mixed media type pieces that I have concerns about long-term because [...] the materials don’t necessarily love each other and want to be together forever.”

Lindsey: “So we are the archaeological repository for the City of Phoenix. The majority of our materials are archaeologically derived, [...] we also have ethnographic collections, the Native American ethnographic and historic objects.”

(a) “[...] the most common is going to be ceramic followed by stone, shell and faunal, and we do have a small sample of botanical materials.”

(b) “Materially, it would be the botanical objects [which includes prehistoric basketry fragments, prehistoric ropes, sandals, things like that, as well as modern ethnographic baskets]. And we do have one painted basket [...] and I would consider that probably the
most fragile […] we have basketry, we have Navajo textiles […] and those are fragile mostly because bugs really like to get at them. And then we also have Maricopa pottery which is painted with a mesquite paint and so it’s organic, and it’s very light sensitive, so we have to be really careful with that one as well.”

Arleyn: “[…] the majority of the materials are archaeological, a lot of broken pottery, lithics, ground stone, all the usual macro bot, fauna et cetera […] probably 90 per of the collections are archaeological. But then we have […] ethnographic collections.”

(a) Archaeological collections.

(b) “I think the textiles, basketry, perishable materials are the most fragile and delicate to care for.”

Stefani: “We have just about everything here at the DAM […] we’ve got bronzes, we’ve got paintings, we’ve got a lot of ethnographic material, that’s one of the larger collections.”

(a) “[…] in terms of sheer quantity of things, the most common material we probably have is works on paper […] well over 20,000 pieces […] so that includes photographs, prints, drawings, things like that. But then the second largest collection is ethnographic.”

(b) “[…] our most fragile collection is the Spanish Colonial […] we do have a few things from antiquity, like some ancient Egyptian wooden things, but not many of them. A lot of the […] Spanish Colonial pieces […] they’re very fragile, I mean there are a lot of paintings done on copper, a lot of […] frames are pretty delicate […]”

“In most of my experience, a lot of the issues seem to be due to age, but the overall fragility can be due to a combination of all of the issues you mentioned in your question as well [i.e. age, types of materials the objects are made of, combinations of materials within single
The first question posed to each collections manager was to determine any commonality in background and training, and to see if the answers support the level of collections management training described in the Introduction section. Out of the five collection managers interviewed, all have undergraduate degrees in a related field (i.e. anthropology, art history, fine arts, etc.) as well as master’s degrees in museum studies or a related field. Dr. Arleyn Simon is the only collections manager who also has a PhD, but she is also the only collections manager who is also an Associate Research Professor at a University. Although not all of the interviewees started working with collections during their undergraduate careers, they all did collections work during their masters (such as internships, etc.); although they each have a specific area of focus, all of the interviewees have experience with multiple collection types.

As far as what the most common materials are in each of their collections, the two art collections managers said works on paper, while two out of the three anthropology/archaeology collections managers said ceramics, with the third more generally saying archaeological objects. The three anthropology and archaeology collections managers (Christie, Lindsey and Arleyn) all noted plant and animal materials as being the most fragile. Christie added that the poorly reconstructed ceramics are also quite fragile because of their past restoration. Britt also noted animal material as being fragile (ivory), but that mixed media objects also pose stability issues due to incompatibility of materials. Stefani pointed out a specific collection as being the most fragile primarily due to its age and inherent instability.

**Question:** What preventative conservation methods do you currently engage in (i.e. IPM, light mitigation, art handling training, etc.)?
Figure 1: Types of preventative conservation in which each of the collections managers engages. Categories along the horizontal axis are based on the answers given by interviewees. Some information was pulled from answers to other questions. Art collections managers are in shades of blue, anthropology/archaeology collections managers are in shades of red.

Figure 1 shows the distribution of answers given by the collections managers in response to the types of preventative conservation that they currently engage in within each of their collections. It is important to note that collections managers may engage in other forms of preventative conservation that they did not explicitly mention in the in-person interviews, both within and outside of the categories listed above. Specifically, Britt, Lindsey, Arley and Stefani did not explicitly note the use of archival materials in their collection, but this was evident through personal experience working in and walking through these collections, and thus has been included in the representation above. The same is true for mount-making for Britt and Stefani’s collections. As shown in Figure 1, in terms of preventative conservation, all of the collections managers interviewed engage in IPM, light mitigation, art handling training and use archival materials in their collections storage. Most also noted that they make storage mounts for objects, and a few also noted that they engage in environmental monitoring in collections storage areas or
mitigate access to certain fragile objects. Only Stefani also commented that the Denver Art Museum has a dedicated gallery maintenance program that “cleans the most commonly accessed areas in the museum on a weekly basis […] and also does] general cleaning of the platforms and pedestals,” (see Appendix F, pg. 194).

**Question:** Do you interact with or interview living artists about their work?

Christie: “We haven’t done that here, as the objects from living artists are in pretty good shape. If, however, we did need to conserve something and the artist was living, it would depend on what the conservation treatment was as to if we would contact them. For just cleaning or a small repair, probably not. If we were going to replace feathers or do some major repairs like that, we would definitely contact them. Even if we were to need to do freezing for pest mitigation on sacred objects or human remains or anything NAGPRA, we would consult some tribes if it could be determined which ones.”

Britt: “We should! […] No, it does not happen as regularly as we would like. I would say that if we reach out to 10 artists we hear back from 4 […] Part of it is an accessibility issue […] it’s best practices for sure, […] but to-date I don’t think that it’s happened as regularly as we would like.”

Lindsey: “Yes we do […] sometimes we have commissioned pieces […] honestly we interact a lot with artists who are learning, a lot of times their teachers will bring them in to come see the works in our collections so they can get inspiration. And we’ve also done a lot with tribal elders, and having them be able to come in and view pieces that were made by members of their family. […]we do not talk to them about how they want their work to be cared for] I think […] that would be an interesting approach. Most of the artists that, um – no, you know we haven’t done that. I’ve talked to a couple of the artists about the sensitivity of the paint,
and we talk about how we try to mitigate that, but no, I haven’t ever thought to ask a living artist how they would like their object to be handled. That’s a good question.”

Stefani: “It is usually Conservation and/or Curatorial who will consult with living artists when it comes to preservation and future conservation concerns.”

Interviewing living artists about their work is an emerging method of preventative conservation – it can reveal material composition of a piece, future conservation concerns, and the artist’s perspective on what is important as far as intellectual integrity. Stefani was the only one who said that staff at the DAM regularly interviews living artists about their work (however this is done by other departments at the museum). Lindsey said that she interacts with living artists quite a bit, although not in the same way; working artists often view the museum collections objects for inspiration, but she had not considered interviewing living artists about how to handle or care for their artwork. Both Britt and Christie said that they do not interview living artists about their work. Britt noted that it is something that they should be doing, but that part of the difficulty comes from eliciting responses from the artists; on the other hand, Christie noted that most of the time the process is not necessary for CUMNH’s collection.

**Question:** How big of an issue are damaged pieces in your collection?

a) What are the most common types of damage?

Christie: “It's a pretty big issue, one we can't deal with on a daily basis because of the time and expense in repairing things, but there are different categories of damage. There's the inherent vice glues that were used to repair things or refit [pottery…] our biggest issue that actually causes that issue to come up is our environment. So we don't have good climate control […] there's a lot of transfer of heat back to the outside and that causes expansion and contraction
of the things. In the summer, the evaporative cooler is extremely humid […] and we go from a very, very low humidity to a medium to high humidity. […] And that kind of cracking and aging that comes from that mechanical damage is probably our biggest issue, and […] pottery glue failing, that has a lot to do with the environment not being stable. […] due to the environment and] because the building isn't sealed up tight, it means we get a lot of pests invading […] so far we haven't seen a lot of damage from the pests […] that's definitely a credit to our IPM program and keeping an eye on what's going on where and the fact that we have a lot of projects in the collection where we see the collections a lot. […]”

(a) Cracking and aging due to the environment and “[…] water damage from actual leaks and water invasion of spaces. So the evaporative coolers had two major malfunctions that caused leaking, one of which damaged objects. Uh, so thinking about what's going to be the biggest risk to the collection, water is definitely the biggest risk.”

Britt: “We’re pretty lucky actually, uh, not a ton. Most of the damaged pieces in our collection are, like, tears, acid burn from previous storage. […] we do keep, like, a running list of works that do, we do want to have repaired. A lot of times it’s just, you know, cleaning and stabilization. There was a piece that Maggie actually just had conserved that, I want to say it had a hole in it. […] But that kind of stuff is really, uh, not very common in our collection.”

(a) “[…tears, acid burn] it’s really like the works on paper, um, creasing, uh cockling. I mean, overall fairly minor, um, as far as damage goes. I mean that’s not to say that, like, we haven’t had pieces dropped because we absolutely have.”

Lindsey: “[…] a lot of our pieces are heavily damaged because they’re archaeological, most of the time they come in broken […]. But we do have a lot of damage from previous reconstructions that have been done here, when they’ve used like Duco cement and model
airplane cement and plaster to refill the pieces and so that’s one of the biggest issues is those pieces are really difficult to display because they’re so ugly […] And also we’ve seen a lot of loss of designs from over cleaning of objects, not necessarily within the past 30 years at the museum, but previous to there being more professional museum staff, um, a lot of pieces have just been scrubbed clean […].”

(a) Damage from previous reconstructions

Arleyn: “Well most of the damage is things that occurred prehistorically, where you have broken pottery vessels that were that way at the time that people were there, soon after abandonment from the buildings collapsing, and things like that so it's a matter of reconstructing those. […] being an anthropological collection, we have a different perspective than many art museums that want perfect pieces. […damaged pieces] still had a lot of value in terms of learning for students and for display too. We think that ware patterns and breakage and things are part of the story. So it's just a different perspective.”

(a) Damage that occurred prehistorically/prior to entering the collection

Stefani: “[…] damage is pretty uncommon. […] Every fiscal year we try to target a department and do an inventory, […and] usually when things are in permanent storage, they are stable, but like some of the things that have been here for a really long time, they may not have had the best mounts made for them, if at all. […] we try very hard here to get things taken care of when we see them, so like the sixth floor IMLS grant to re-do the textile storage there, you know, we had started noticing that the tubes that the textiles were rolled on – first of all, a lot of them were not archival, […] so we put them on archival boards and we also noticed that the particular kind of storage, the tubes were starting to bend because there wasn’t an internal support, so, we got those re-rolled and put a center support through the tubes. […]Damage]
mostly happens during handling, and I think that’s pretty universal for any institution, cause […] things break, […] a lot of damage can occur when we’re setting up exhibitions.”

(a) Damage from previous storage

According to the answers given by each of the collections managers, damage seems to be most common in the anthropology and archaeology collections. At the two art museums, damage is less common; this could be due to a few different factors, one being the types of objects they care for (in the anthropology/archaeology collections, many objects are from excavations and have prehistoric damage) and another being access to conservators (the two art museums have greater access than do the others). However, the most common types of damage seen in each collection are all quite different and result from very different factors such as previous improper storage, inadequate environmental control, improper reconstructions, handling or contact with non-archival materials, or damage that occurred to objects prehistorically.

**Question:** When you have a damaged piece, who or what does this affect the most (i.e. exhibitions, or access to the public/researchers)?

![Figure 2](image.png)

**Figure 2:** Art collections managers are in shades of blue, anthropology/archaeology collections managers are in shades of red. Here “public” can refer to both the general public as well as researchers and/or students.
There was a split in answers to this question with staff time being the most affected when responding to damaged collections for both Stefani and Christie, but public access and exhibits being most affected for Arleyn, Lindsey and Britt. Christie’s answer reflects the large-scale damage that has occurred in the past to the CUMNH collections. The damage did not affect the “actively-researched higher-quality collections,” thus the biggest impact was on the time it took to respond and recover which included managing “logistics and having to deal with insurance and conservators,” (see Appendix F, pg. 136). Stefani had a similar answer, but reflects the fact that they have conservators on staff whose time is solely dedicated to treating damaged pieces.

**Question:** When/how do you determine when a conservator needs to be consulted for a piece?

a) What factors do you consider when making this decision (i.e. budget, use of the object, museum mission, needs of the public, needs of other pieces in the collection)?

Christie: “So usually when we've contacted a conservator for recent damage or some sort of impact damage, it's been as a part of we’re getting insurance to cover that […] it’s been sort of more of an emergency issue. We've also contacted conservator and done a conservation program just around old damage […] stabilizing textiles is our main conservation program where we do sort of more proactive conservation. […] and this isn't about an emergency situation, it's about just doing proper preservation and care of the collections. So, we consult a conservator when we're ready to do it, it’s sort of at our leisure and otherwise we consult a conservator when an emergency has happened and we need somebody to fix something pretty quickly – get water off of something, repair something and that sort of thing.”

(a) “Budget is definitely a part of that. Both of those examples come from different types of budgeting. So insurance pays what it pays, minus a deductible […] and then the budget for
just general conservation is – we have a budget for that, we have an endowment that covers care and acquisition of collections and that falls within that budget. […] Use of the object would come into play if, for example, someone wants to borrow something for an exhibit and it needs to be stabilized before it can travel. […] So a lot of times it's just situational. Definitely things like the needs of researchers and the public and exhibition and the museum's mission come into play because [...] we're not putting our conservation resources toward things […] things that aren't our main mission, they’re not our main collecting scope […] So we absolutely do prioritize. […] So the most famous pieces that were in the worst condition go first, that’s how we would prioritize them.”

Britt: “I would say that we’re probably a conservator heavy institution. If somebody does want to use something for an exhibit and [the] condition is a question, then we will consult before it is determined whether it can go on, but like I said that’s usually part of the budget. […] it’s like a built in aspect of all of our exhibition budgets. Now, if there’s, you know, four items and we can only afford to conserve two of them, then budget does come into play and that will ultimately be probably a curatorial decision […] if we had an object that, like, every class was using every time, that would probably come into play as well. We do have a general collections budget […] not tied to any exhibitions, that does tend to be tied to use.”

(a) “I would say I don’t think museum mission necessarily comes into play […] Because our mission applies to everything in our collection. […] but definitely use and definitely exhibition and definitely budget. [We go for grants every year…] and then we’ll use like our […] general conservation fund to […] price match or grant match […]”

Lindsey: “Okay, so usually the number one thing for me is justification – why am I doing this? So I need to have a good reason to put it back together whether it be for the stability of the
object, or usually for us for exhibit purposes. So usually for us, if we’re going to have a piece put back together it’s because it’s getting ready to be used or go on exhibit. […] for us, a whole pot is a lot more difficult to store than a bag of sherds. […] Because you have to be a lot more careful […] so that’s one of the things that we think about is if we have this reconstructed, it is going to be more difficult to store, is it worth it and is it worth the damage that could happen to the piece in the long run.”

(a) “[…] if we do decide to reconstruct or use a conservator, we always go with someone who’s got accreditation or experience. We usually use conservators at Arizona State Museum, and then the thing that comes in for us is once we’ve decided [to conserve a piece […] is budget […] and there are a bunch of other objects that I’d like to have worked on, for example […] we have a couple of really large baskets that I’d like to have a conservation mount made for, for storage. I feel like that would be a greater justification than reconstructing a piece for an exhibit, but the cost of having that conservation mount and care done on the basket is much higher than it is for us to have […] a pot put back together, so it’s really kind of 50/50.”

Arleyn: “Well, it would be a case of active damage going on that requires expertise or experience that we don't have, that we would call a conservator to consult on what the proper steps would be. It doesn't happen very often.”

(a) “Well, it hasn't been a big issue. […] it wouldn't be like an art museum where we have to have some cleaning restoration done or paint delaminating from the canvas or something like that. We haven't been faced with any issues like that. We do have a small budget that can be used if we need to […] it's just a general budget, so you'd have to allocate a certain amount.”
Stefani: “[…] they’re consulted with every exhibition, like they will go through and locate the objects in storage and say [what objects need before they go on exhibit, but] for me in collections […] if something just looks unstable, I’ll give them a call […] But yeah, basically it’s kind of the point where, it’s like, this does not look stable, I don’t know if I should be handling it […] Oh and then also if we find that it’s damaged and that wasn’t previously documented.”

(a) “[…] they have their own budget, and they are also – sometimes we’ll get grants for specific conservation projects, […] But yeah, they have kind of their baseline budget. And Curatorial, they have quite, uh, significant say in what projects conservation takes on in a given year because it’s so related to exhibitions related material, […] I don’t know what their budget is for, like, random things that happen.”

**Question:** Do you have funding specifically for conservation?

Christie: “ […] we have] an endowment called the Joe Ben Wheat Textile Fund […] the language is fairly open, meaning it was started for the care of textiles, but it can be expanded and it does include all the anthropology collections […] but it needs to be for the care of, or acquisition of, and it’s anthropology focused. […] each year new funds go into that […] we also have a curatorial budget each year which is fairly small, to care for and buy, but […] it’s not just for collections […] it’s a section operating budget.”

Britt: “[…] our general, non-exhibitions conservation budget is $2,000 a year.”

Lindsey: “[…] I think our general, just day-to-day without electricity and AC is $18,000 is how much we have free to spend. I don’t get any of that directly for collections, […] I have a separate special line called the repository fund, where monies that we collect as repository fees are deposited and I’m allowed to use about $20,000 of that every year for care of
repository objects, […] it usually goes to preventative conservation, […] I can’t use that line for [objects that don’t come in] with the archaeological repositories […] And then […] I get $2,000 every year [from our associated non-profit] the conservation that we have had done, we’ll pay for out of that line.”

Arleyn: “[…] not specific to conservation. […]it] can be used for that as we need supplies and that type of thing. We have a few work study students each year and then we also have undergrad interns that are taking internship for credit, and occasionally masters students that are doing internships that might choose to do projects that are conservation related. So it isn't specifically allocated […] but we can use what we need out of our general budget.”

Stefani: “Yeah, I just don’t know what [the conservation department’s] budget is. Every department, before the next fiscal year, has to submit a budget, and sometimes we get the money, sometimes we don’t and it just kind of depends on how things went in the last fiscal year for different revenues.”

When asked how the collections managers determine when conservation is needed, and what their access to conservation funding looks like, answers were a little different for everyone. Christie noted that conservation usually happens either in response to an emergency situation, or is part of their ongoing conservation program to remedy old damage. For Lindsey, conservation is usually tied to use or exhibits, but always they consider the justification – is it worth spending the money, and might conservation cause future storage problems? Arleyn noted that hiring a conservator is not common in their collection, but when it does happen it is in response to active damage that requires expertise that falls outside of their staff. Both of the art collections managers, Britt and Stefani, noted that conservation work happens hand-in-hand with exhibitions. At the CU Art Museum, it is built into their exhibition budget to have conservation
work done on objects going on display, and because the Denver Art Museum has conservators on staff, they are consulted with every exhibition as well as if there is any question about an object’s stability or if previously unrecorded damage is discovered. Furthermore, the two art collections managers have conservation specific funding while the others have more general funding that can be put toward specific conservation projects or when it can be justified.

**Question:** Do you actively take part in professional development? If no, why not and if yes, what sort (anything related to conservation and preservation of objects)?

Christie: “[…] I do, I guess from the bottom up I get involved with the collections management group here on campus. […] somebody represents every collection on campus – to the regional collections management group, […] to our state organization […] those first two don’t have conferences, but the state organization, Colorado-Wyoming Association of Museums, has a conference and I do attend that yearly. And […] the Mountain Plains Museum Association – I attend that on occasion. And then the other conference I attend more often is the Association of Tribal Archives, Libraries and Museums. And the national NAGPRA meetings […]. Separate from conferences I’m a part of the Colorado Cultural and Historic Resources Task Force which focuses on emergency management and recovery of cultural resources […] including historic sites, archeological sites, museum collections, archives, libraries, et cetera. […]”

Britt: “[…] yes […] one of the things that I did when I was first starting out in the museums was WESTPAS […] For like re-doing our emergency plan […] it was like a workshop. When I was at ARCS [the Association of Registrars and Collections Specialists conference] I went to one all about how to take care of digital media because that is an area […] that we, you know, we have a small collection of it now, it’s only going to grow, so I feel like it’s really
important to get a handle on it now, before moving forward. […]… If I had all the monies for professional development, I would go to the IPI […] which is] everything that you need to know about care of your photographs in your collection. […] I would continue to do that if I, you know, could.”

Lindsey: “Yes! […] Pretty much anything I can get my hands on. […] I take as many webinars as I possibly can, it’s kind of gotten to the point where I’ve pretty much taken most of the webinars that are out there right now, I use the Collections Care Network, they’ve got a lot of really good webinars, so I try to make sure my staff is up on all of those if I’ve already taken them. For conservation and preservation I prefer, like, a hands-on class. […] So, I try to take those extra workshops, I do have a professional development budget through the City of Phoenix […] I can’t go out state, really, for training, but I can take most of the courses here.”

Arleyn: “Well, I'm active in the Archaeological Society, but I don't… Occasionally, a couple of times a year we might, I and some of the students might listen in on one of these museum webinar type things. […] But I guess the range of things we deal with are pretty, pretty well in hand”

Stefani: “Yes […] When I have more time I do like to do the webinars, the C2C webinars […] and then I’m also on the boards for CWAM and MPMA , I’m the Colorado State Rep for that, but we, CWAM has resources […] Which are specifically for smaller museums […] But yeah, I’ve never had to use those personally just because my museum has a big enough budget that it’s not much of an issue, but I do attend the conferences for CWAM and MPMA.”

All of the collections managers said that they participate in some kind of professional development and most further expressed that they are actively seeking out such opportunities.
Furthermore, no one conveyed any significant obstacles to engaging in professional development. For example, while Britt and Lindsey said that they engage in professional development when they can, they did not explain further whether that indicated an obstacle due to time or money, and while Stefani did note difficulty in finding the time to dedicate to webinars, she added that the inability to do so was tied to the needs of a current project rather than ongoing time constraints. Although Arleyn seemed to be the least active in seeking out professional development, it should be noted that at the time of the interview Arleyn was close to her retirement.

Although all of the interviewees participate in some kind of professional development, it is at differing levels and through a variety of approaches. All of the collection managers except Arleyn attend conferences, and all except Britt and Christie noted that they seek out related webinars. Christie, Arleyn and Stefani all are members of professional organizations related to museums or related disciplines, while only Britt mentioned attending a conference specific to collections specialists (ARCS).

**Question:** Have you done stabilization work before? If so, what kind?

Christie: “I’ve tied off beads mostly. Most of those have been on moccasins. I haven’t yet done anything with the leather, but […] the conservators at NMAI showed us how to stabilize tearing seams. The only other treatments really would be cleaning. I’ve cleaned baskets, pots, beadwork, textiles, etc. I think that mostly covers it.”

Britt: “[…] honestly, I don’t feel like I have the skill set to do any kind of repairs […] I really don’t do anything that I think would be even remotely invasive […] I’ve done] Lots of vacuuming.”
Lindsey: “[…] if there’s] one sherd that fell off the rim of a pot, I will do that, but that’s about as far as I’ll go. If it’s a multiple piece pot, we contract it out just because it is so hard to do them well, and I don’t have the – enough experience to do a full pot well. So I’ll do one piece if it’s like two or three sherds that go together […] I’ll do that kind of stabilization, very minimal. I’ve taken workshops on basketry cleaning, but I’ve never actually done it […] I’ve done a couple of paper stabilizations in a workshop […] but I haven’t really done that in our own collection. A lot of times, what we’ll do is if we have a photograph that’s falling apart or a piece of paper that’s falling apart we’ll encapsulate it in Mylar […] and I don’t usually do a full seal, I’ll usually use a sleeve to slip it in […] So usually we just try to kind of minimize the future damage, and leave the damage as is, unless it’s very minor. […] I’ve taken workshops on my own through conferences that, where they’ve offered a sub-workshop for a fee, and then a lot of on the job training as well.”

Arleyn: “Well it's a bit limited, but when I was doing the Roosevelt collection, we were doing the actual fieldwork. Nancy Odegaard was our conservation consultant. […] there were a couple things that were made out of antler or bone that were discovered in the field […] and we contacted her to find out about how to get those block lifted […] and she recommended saturating some paper towels with alcohol and encasing that around it to inhibit mold forming and just gradually, over a period of a few weeks, let them dry out to where they could stabilize and have the dirt cleaned off. […] There was also a water based acrylic that could be coated on to bone that saturates into it and helps stabilize it […] But it doesn't harden immediately so it still allows you to clean the outer surface. It's removable. Also Vicki Cassman was doing her Ph.D. here […] and for her project she did a study of different acid washes on ceramics […] to wash off the pottery. So, you do a water wash, then the acid
wash with soft vegetable brushes, natural fiber, and then rinse it in water and then let them dry. This worked very successfully.”

Stefani: “Yes I have, so that was more in my conservation days. Now, in my current job, I do not engage in that, I mean any kind of stabilization we do is more preventative conservation, building mounts for things so that they won’t deteriorate further, or, you know, make sure that they are going to be in a state where they can be safely handled, and that the object can maintain its form. […] in the past when I was doing conservation, I helped put together a stone sculpture that had broken […] I also did stabilization on quite a few textiles […] Never did any, like, major stabilization with paintings, that was usually the conservator who would do all of that, I mostly did […] cleaning and infills […] I don’t do much conservation now] since we’re such a large institution, […] we’re so large that it doesn’t make sense to have certain departments combined, and the museum does have a budget and conservation program […] they specialize in getting things exhibition ready, or if there’s any damage that has occurred to something, they’re the ones who will come in and fix it.”

**Question:** What stabilization techniques would it be most useful for you to learn?
Figure 3: Categories along the horizontal axis were determined based on answers given by interviewees. Art collection managers are in shades of blue, anthropology/archaeology collection managers are in shades of red.

The level of conservation that collections managers are currently engaging in is primarily preventative, but responses to this question show the interest of some in learning techniques for responding to damage that has occurred in collections. Although there is a wide range in what stabilization techniques collections managers are interested in learning, the most common is cleaning. The two collections managers who expressed the greatest range of interest in stabilization techniques they wish to learn care for anthropology/archaeology collections; on the other hand, the two art collections managers and the other anthropology/archaeology collections manager were more hesitant to go beyond their current skill-set. For example, Britt noted that “[…] at the end of the day, I don’t know […] how much more than I already do that I would feel comfortable doing. […] I’m not a fine arts conservator […]” (see Appendix F, pg. 162). Arleyn also expressed hesitation in treating pieces due to the challenges for potential damage, as well as the dilemma of “keeping things as authentic as possible, versus keeping them from falling apart” (see Appendix F, pg. 190) and Stefani expressed interest in purely preventative conservation,
noting that nothing involving chemicals should be attempted by a non-conservator because of the
great potential for making a mistake.

**Question:** Do you feel you, or other museums would benefit from a kind of guidebook on basic
stabilization techniques for collections managers? Do you think something else might be more
useful (i.e. trainings, workshops, videos, etc.)?

Christie: “I think so. […] I think trainings would be more useful. I think in-person workshops
that are low cost because obviously museums don't have a lot of money, would be very
helpful and are outside of conferences because again, a lot of staff can't necessarily go to a
whole conference, but a workshop that's a one day or half day or something just to learn how
to do a certain stabilizing technique would be very useful. A guide book is nice, if it comes
with templates on how to build a box, but if it's something like ‘here's how to stabilize a
bead,’ unless you do that physically, I'm not sure […] you can show that in words and
pictures […] Some things that works well for […] but how to stabilize a bead, how to clean
hide, how to stabilize a seam […] is probably something that needs to be taught by a
professional and in person. […] I would say there are probably incrementally more
challenging techniques before you get to the point where it's just call a conservator this is too,
too inappropriate for a collection staff to do […].”

Britt: “I’m more likely to use a book than I am to watch a video […] Trainings and workshops
are the best way, I think, to learn […] new skills. Because you’re doing it hands-on […]
yeah, I think that if I wanted to learn […] more stabilization techniques, I would prefer a
training or a workshop.”

Lindsey: “[…] yes, I do think that that would be an excellent resource. I do think that it should
be digital, whatever you do should be available digitally because that’s honestly how I find a
lot of my resources […] I think videos are great, I love doing YouTube, because I just think you can see, see things so much better, but it’s really hard to know who to trust, you know, so I think a PDF would be great to start something that would come up in a search, and then if you link to videos or something, that would be awesome, because I think […] it’s really good to see it in action, but I do think basic step-by-step instructions in a written form would be good as well. […] Some kind of combination of the two.”

Arleyn: “I think that would be good for a lot of professionals, especially starting out. Sometimes professionals get a job that's in an area of collections that's not what they previously had experience with. So I think that would be beneficial. […] trainings, workshops, videos would also be useful]”

Stefani: “I think that small museums would really benefit from that, you know, particularly ones in more rural areas where they don’t have a lot of museum professionals actually working in the museum […] I like the idea of, like, real hands-on stuff, trainings and workshops, but the hard thing can be, and I’ve really seen this with CWAM, is just reaching those rural areas […] particularly, if they don’t have a budget for professional development like that […] they’re not going to come. The videos might be good, like, I’m envisioning a lot of those YouTube how to videos where you like, zoom in on someone’s hands or something […] that could be useful. But it’d definitely need to be very thorough, like, this solvent can only be used with this material, or whatever.”

When asked whether a guidebook on basic stabilization techniques for collections managers would be a useful resource for collections care professionals, everyone responded positively, while acknowledging that whenever possible, in-person or hands-on training is best. As pointed out by Stefani and Christie, not all museums have the necessary time or money for in-
person trainings, so they advocated for a physical or digital guidebook that could conveniently provide some of the same information. Additionally, Stefani pointed out that museums in rural areas sometimes lack professionally trained collections care staff. Although in-person trainings are ideal, Stefani’s answer implies some difficulty for these museums to attend such trainings and that the suggested guidebook might be more useful, as it can offer constant access to a wide-range of information on collections care. Furthermore, Arleyn noted the usefulness this type of resource could have for emerging collections management professionals who have less first-hand experience with the variety of conservation concerns that comes with working in collections. She thus indicated that to have a how-to guide on hand could improve their ability to respond to damage quickly and responsibly. Another suggestion that a few of the collections managers gave as an alternative to the guidebook was online video tutorials of stabilization techniques that can be accessed for free, such as via YouTube.

**Question:** What do you use/recommend as far as resources/related literature? What archival materials do you use in collections storage? Where do you order your supplies from?

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| Britt | • *Basic Condition Reporting: A Handbook*, by Southeastern Registrars Association  
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• Western States and Territories Preservation Assistance Service (WESTPAS)  
• Image Permanence Institute (IPI)  
• *Conservation Concerns: A Guide for Collectors and Curators*, by Konstanze Bachmann  
• Other: Google, colleagues or conservators | • Archival blue board  
• Heritage board  
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• Glassine (not actually archival)  
• B72 and acetate  
• Muslin | • Gaylord Archival  
• Other |
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| Lindsey | • Northeast Document Conservation Center (NEDCC)  
• American Alliance of Museums (AAM)  
  o Registrars Listserv  
• Photo institute  
• AIC  
  o Collections Care Network  
• CCI  
  o Notes  
• Blog: *Inside the Conservators Studio* (by the professionals at Spicer Art Conservation)  
• PACCIN  
  o Soft Packing booklet  
• Other: Blogs, YouTube, colleagues, booklets and resources from workshops | • Archival folders and bags (polyethylene)  
• Document enclosures  
• Neutral adhesives on paper closed in a box | • Gaylord  
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  o Conserve O’ Grams  
  o Museum Handbook  
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• Other: Books on specific topics | • Acid free tissue  
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• Acetone and ethyl alcohol  
• Blue Board | • Gaylord  
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• WACC  
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• Gaylord  
• Universal Packaging |
Table 3: Collections Managers: Recommended Resources, Archival Materials, and Material Vendors. This table is a collection of answers to different questions that were posed during the interviews. The “Recommended Resources” column includes all of the collections care resources that were recommended by interviewees, as well as the resources they noted that they reference regularly.

Conservators

**Question:** Could you tell me about your background and training, including how long you have been working as a conservator?

<table>
<thead>
<tr>
<th>Name</th>
<th>Bachelor’s Degree</th>
<th>Master’s Degree</th>
<th>Conservation Experience</th>
<th>Additional Experience</th>
<th>AIC Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>Judy</td>
<td>B.A. in Anthropology Minor in Geology</td>
<td>M.A. in Art History and Conservation</td>
<td>20+ years</td>
<td>Diploma in Archaeological Conservation</td>
<td>Yes (Professional designation)</td>
</tr>
<tr>
<td>Jennifer</td>
<td>B.A. in Art History Pre-requisites for a master’s in conservation</td>
<td>M.A. in Art History and Conservation</td>
<td>10+ years</td>
<td>Multiple conservation internships</td>
<td>Yes (Professional designation)</td>
</tr>
<tr>
<td>Kate</td>
<td>B.A. in Art</td>
<td>M.A. in Art</td>
<td>10 years</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Other: Colleagues
- Silicone release paper
- Abaca tissue
- Washed, unbleached muslin
- Blue Board tubes
- Heritage Board
- High density polyethylene
- Other: Colleagues
- Silicone release paper
- Abaca tissue
- Washed, unbleached muslin
- Blue Board tubes
- Heritage Board
- High density polyethylene
|        | History, Studio Art, Chemistry and Materials Science | History and Conservation | 10+ years | Chemistry courses as pre-requisites for conservation  
|        |                                                     |                        |           | Multiple conservation internships  
|        |                                                     |                        |           | Mellon Fellowship in Fine Art Conservation (works of art on paper and historic documents) |

**Table 4: Background and Training of Conservators.** Background and training of each conservator is broken out into degree type, years of experience in the field, additional experience, and whether or not the conservator is a member of the American Institute for Conservation of Historic and Artistic Works. Some information was pulled from interviewees’ professional websites and/or CV’s found online. Cells are left blank where information was not provided or could not be found.

All of the conservators interviewed have bachelor’s degrees in related fields as well as additional conservation-specific training (for some, this is a master’s degree, while others have different types of certifications or field training). At least four out of the six interviewees are AIC members, with at least three of those four having the further designation of fellow or professional – this status is attained by having “had their training, knowledge, and experience reviewed by a body of professional conservators who are recognized in the field for their commitment to AIC's
Although there is some variation in training and conservation certifications between the interviewees, some of this is explained by the changes in training requirements over time; Judy highlighted this change by saying that when she was training to become a professional conservator, “[…] back then [it] was very difficult to get actual hands on training. […] just in general people in the museum world were very reluctant to have someone, a novice, work with the objects, so that's really changed, whereas […] now, to get into a program you have to have […] many hours of hands-on practical work,” (see Appendix G, pg. 209). Jennifer supported this comment in her interview, noting that there are many prerequisites for graduate-level conservation programs and that “it does take a couple years at least” (see Appendix G, pg. 222) to fulfill just those, let alone what is required once in a conservation program. Beyond this, at least three of the four conservators who have been in the field for less than twenty years had multiple conservation internships prior to working in a leading position (Kate did not say whether or not internships were part of her training).

**Question:** What types of objects do you focus on?

Nancy: “Primarily movable cultural heritage under the label of ethnology and archaeology. However, I sometimes work with fine art, paleontology, human remains, archaeological sites and monuments, as well as rock art.”

Judy: “I always say objects conservation is an oxymoron because you specialize in just about every 3D. I particularly like polychrome wood […] I like ethnographic. I of course love archaeological but that's very scarce. […] I just don't see much of it. And if I do, it's usually things that are in a collection, not recently excavated which is a little bit different. Of course I work a lot on ceramics because both they're very collectible and they break. And I do not

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work on high fired wares anymore because I have discovered it's just too difficult. [...] So I work on all sorts of things, everything from historical, archaeological when I get a chance, and modern, everything from things that have no so-called market value but have sentimental value. You can't put a price tag on sentimental. So everything from that to things that are quite valuable. But of course in our field we do not differentiate between something that's very, sort of, pedestrian, mundane and those things that are high end. They're all treated the same in terms of our approach to treatment and ethics.”

Jennifer: “Anything on paper – prints, drawings, watercolors, various manuscripts, and specifically I also have an additional specialization in Asian art.”

Kate: “So at the [Denver Art Museum] I am responsible for outdoor sculpture, so that’s bronze and painted metals, fiberglass, that kind of thing, and then I also work on all the modern and contemporary objects from the Modern and Contemporary Collection, and also the Architecture, Design and Graphics Collection, and I also work with Native Arts occasionally, with some of their contemporary works. And then [...] what we call variable media, which is artworks that have the propensity to change over time, so it’s kind of a broad category, but also it includes, like, electronic media, so audio, video, software based artworks, digital, born digital artworks, things along those lines. Also, things like [...] light-based artworks, where you maybe have to change out a component, or other electronic based artworks of other nature. And installation artworks that might change each time you install them, based on the space that you’re using, or something along those lines.”

Beth: “Works of art on paper, historic documents, family treasures, objects such as paper lanterns or fans, architectural models - anything that is made of paper, excluding books, although I so sometimes work with scrapbooks and photo albums.”
Paulette: “Textiles and objects, I also majored in textiles and organic objects. […] But now, since I've been in private practice, just focusing on textiles because it's simpler […] to just focus on one thing. […] I mean, I'll work on […feathers and] sometimes other things but I collaborate with a objects conservator, Judy Greenfield, quite a bit. […] So if it's something that's more in her jurisdiction, you know, there's crossover. We've had some treatments that are composite treatments and I'll work on the fur, sometimes she'll do the fur. Just depends on what we feel like […] or who has time or […] if it's more stitch repair I'll do it, that type of thing.”

**Question:** What are some of the most common materials you use in your practice?

Nancy: “Adhesives, solvents, reagents, hand tools, and analytical instrumentation.”

Judy: “I would say that our, our adhesive which is Acryloid B72 – it’s Ethyl Methacrylate, Methyl Acrylate co-polymer – is our most widely used adhesive. It remains water clear, it's very reversible, it has some give to it, so it tends not to be brittle and, you know, acetone, compared to other solvents, is fairly innocuous. Let's see, I also use synthetic spackling materials quite a bit for fills, I use a variety really of adhesives, B72 being the most commonly used, but I use natural adhesives as well as synthetic. […] I'll use epoxy putties for reconstructions, and solvents of course. That pretty much covers it. You know, obviously there's going to be certain objects that use specific materials, but […] that's my general sort of corpus of materials and supplies.”

Jennifer: “Japanese paper and wheat starch paste are the very, most essential, basic materials. I use them for mending, lining, yeah, lots of things. And that’s kind of your basic conservation technique, so.”
Kate: “So with objects conservation, it’s […] adhesives, solvents, surfactants for cleaning […]

Paints for in-painting, coatings, dry cleaning materials – like erasers and things of that nature, brushes and […] with water materials you might be using a different type of adhesive or something, like […] water-based kinds of materials. And […] wrapping materials […] for storage and that kind of thing, though a lot of that is handled by our collections management department. And then, yeah with electronic media, it’s a totally different ballgame – […] that’s] mainly working with computers a lot, and different pieces of software. We do have some video equipment […] so we can play back video, and […] monitoring equipment for video, and then we do have a couple pieces of hardware that we work with, with born digital materials. [Such as] a read-write blocker, which is something that you put in between your computer and the device that you’re trying to get information from, and it prevents your computer from writing anything back to the original device […] And then we have […] a Kryoflux […] it’s a device specifically designed to read floppy disks very carefully and slowly and capture the data off them, and determine if there’s a bad sector or something.”

Beth: “Various thicknesses and types of Japanese papers, wheat starch paste, various proteinaceous and polymer adhesives, water adjusted with a variety of acids and bases, Tek-wipe, Gore-tex, cellulosic gels.”

Paulette: “[…] most of the repairs that I do are like stitch repairs often using sheer fabrics, Stabletex, organza's, Crepeline, fill Crepeline depends on the treatment. […] things come up where I'm doing adhesive repairs, but not as much, it just depends. […] I do clean textiles, a lot of dry surface cleaning sometimes I wet clean textiles, you know, spot clean, stain removal. Although just for my own health and safety I tend to shy away from treatments that involve use of a lot of solvents or different chemicals that are harmful.”
The answers to this question were quite varied due to the different focuses of each of the conservators. However, adhesives were mentioned by everyone (Jennifer noted this in response to another question), solvents were cited by almost everyone, and the two paper conservators commented that Japanese papers and wheat starch paste were among their most used materials. This question was asked in order to draw comparisons between the supplies used most by conservators versus those used by collections managers.

**Question:** When dealing with a damaged object, at what point should a collections manager contact a conservator?

a) What do you recommend if a museum is unable to hire a conservator for a damaged piece?

Nancy: “When they are unsure or uncomfortable with the situation."

(a) “Establish a relationship with a conservator(s) so that a call can be made to talk things over. This can start with a conservation assessment survey or consultation.”

Judy: “You know, I'd say it's so easy these days to just take picture and just email the photo if there's any concern.”

(a) “I would say that they should look at fundraising sources, granting foundations, and if not probably just set it aside. If it's actively deteriorating, then I'd say it's more imperative to try to get the funding, otherwise something like a broken ceramic can usually stay in that state forever.”

Jennifer: “Well, I guess if it’s something that looks like it’s gonna progress, then it’s something you should do immediately. Like if an object got wet for example, something spilled on it, the sooner you deal with it, the better. If something’s torn then, you know, sooner also is
better in that situation and avoiding any kind of handling of the object [...] which could make it worse, I would say.”

(a) “Best recommendation is good housing. So, if you can put –say it’s a damaged art on paper, is the only thing I can speak to –putting it in some kind of enclosure that would prevent any further handling, either a box, archival box or a folder or some kind of encapsulation in Mylar or something like that.”

Kate: “Yeah, I think here we have the luxury of, that we’re onsite so if a collection manager finds a damaged object, pretty much every time they contact us. [...] for a museum that doesn’t have conservators on staff, I would say if it seems like the damaged object is highly unstable, [...] that would be the time that I would recommend definitely contacting a conservator.”

(a) “[...] document the piece, like right after the damage occurs [...] try not to move anything immediately, try to get some photos of it [...] try to keep track of all the parts. There’s a technique of creating a grid if it’s, like, something that’s completely fallen and shattered into a thousand pieces, [...] You can kind of grid off the area and then maybe bag separately the pieces that are in each portion of the grid so that you keep track of, like, where the pieces went to and when the damage occurred. That can help somebody reconstruct it, in the future. [...] just trying to get all the pieces into a stable storage environment, [...] minimize handling as much as you can. I’d generally put things that are not stable onto fixed shelving [...] it is going to depend a lot on what the damage is. [...] trying not to have materials in contact with the damaged areas when possible, but still, I mean if something is [...] partially broken or something like that, figuring out some way to prop it so that there’s no stress on the damaged area.”
Beth: “When an item is vulnerable to further damage if left untreated. Many conservators will give advice about options for stabilization and when/if it is necessary. It is usually pretty easy to get a fast consult before deciding which course of action is best.”

(a) “Phased conservation treatment is a method of evaluation where an item or collection falls in a matrix of high/low use, high/low value, severe to no damage. A first approach would include evaluation, then perhaps improving the storage environment (temperature, relative humidity, pest control, security, etc.) and then improving the housing with appropriate archival, acid-free materials - supports, enclosures, handling methods. After ensuring protection and preservation, the item can be evaluated for the ability to make a digital surrogate, by scanning, photograph, 3-D reproduction or printing. The digital surrogate can be displayed instead of the original. Some conservation treatment might be necessary to allow the item to be handled during scanning. After those steps, there are a variety of fundraising methods that might be used to raise the money for treatment, including adopt-an-object campaigns, asking a private donor, or applying for a grant.”

Paulette: “[…] if it was observed that something is happening ongoing, like if there was a change in condition, or if they really can't move it or feel like they can move it or pick it up safely. I think if something's to go on loan or on exhibit and it's […] at all fragile, or any question about that.”

(a) “It’s such a general question. I guess it depends on […] what they're wanting to do with the piece, if it's just sitting in storage or, I mean I would say just store it properly and maybe not put it on loan or exhibit if there's concern that it will be damaged. But you know that, of course that depends on a lot of things.”
**Question:** Speaking to your area of material focus, what simple stabilization or conservation techniques (if any) do you think a collections manager should be capable of, or feel comfortable performing?

Nancy: “Handling, moving, storage supports, packing for loan, basic mounts for exhibition, condition reports, basic maintenance.”

Judy: “Yeah, that's a really difficult question. I think there's probably little that someone who's not a conservator could do. Again I think it would be appropriate to contact a conservator, send some photos and say what can be done. Yeah, consolidation can get tricky. So I don't think that there's really much for an object that someone could do.”

Jennifer: “I think with proper training and some guidelines, mending a tear could be very possible to learn and that’s something that I think is good to address early, as you come across it because it can worsen [through] repeated handling or exhibition and that kind of stuff. Some flattening, maybe, but that’s a little trickier. Although surface cleaning is something I could also teach someone. But beyond that, I think consulting a conservator is the smartest thing.”

Kate: “[…] I think vacuuming is a really important skill, just keeping dust off of objects really is helpful for their preservation. […] creating storage mounts is very important […] Numbering is fairly an important technique, but that’s pretty standard for collection managers to be handling that. […] thinking back to digital media…That’s a field where it’s not very codified in terms of who’s responsible for what, […] there’s really not very many media conservators around. Museums haven’t reached the point where they’re willing to hire full-time media conservators, […] so] I think that collection managers could definitely learn […] basic skills about importing media into a repository, using a read-write blocker, you know doing some of
the basics because [...] those storage media, like CD-ROMs are so vulnerable, they’re not
going to last very long, [...] with digital files, they need to be processed and they need to be
documented, [...] you need to be monitoring what kind of file formats you have in your
collection in case they’re no longer supported, in which case you need to think about
migrating to a different format. But I think a lot of the basics about setting up a digital
repository and getting materials into it [...] collection managers could learn to do that as well
as a conservator in some cases, or at least with the basics. I think it’s treatment of those
works gets very complicated [...] you’re working with computer scientists and outside
experts [...] but I do think there’s definitely a big role that collection managers could play
with electronic media [...]preventative conservation is] a lot of what it is.”

Beth: “There are classes available for adding some skills to a collection manager’s repertoire,
such as surface cleaning, rehousing, basic mends. It is important to maintain continuing
education via trusted sources, as there is a lot of mis-information [sic] out there on the web.”

Paulette: “[...] I think it depends on the background. I've worked with collections managers that
have [...] some background in, like, textile arts or sewing and doing like a basic stitch repair
would probably be fine. [...] I think it just depends on the background of the collections
manager. [...]maybe] vacuuming or, you know, basic preservation. [...] AIC has links as well
to different things and some of them are just for conservators in the specialty groups, but that
would be an option too [for a collection manager] that really doesn't have access to either
funding or conservators aren't available [...] There are also online courses through SAIC's or
other places. [...] And even something like that could help inform, you know, when you
really need to call conservator. The more you know the more you realize you're sort of out of
out of your element I guess.”
**Question:** Are there any stabilization techniques that you would be willing to demonstrate?

a) If so, would you consider allowing me to visually record (photograph or video record) a demonstration? Would you be okay with me publicly distributing such a demonstration?

b) What should not be attempted?

![Diagram of stabilization methods](image)

**Figure 4:** The horizontal access reflects answers given by the interviewees. “Digital media equipment” indicates teaching collections managers how to use basic hardware used in the preventative care of digital media. “Discuss materials” indicates educating about types of collection and conservation materials rather than teaching a specific stabilization technique. Paper conservators are represented in shades of blue, conservators specializing in multiple media types are shown in shades of red.

Nancy: “Yes, I regularly teach techniques in sessions and workshops at various museum, conservation, and library meetings”

(a) “There are several already on line. Check out the Sustainable Heritage Network”

Judy: “[...] I wish I could give you a straight answer, but I think it really depends on the object and what the problem is. […] And I think it should always be in consultation with a
conservator. [...] there are some treatments that I believe other people can do, you don't have to be a conservator. [...] Something that would be pretty innocuous. But again, I would not want to sort-of do this by phone, I would want to ask questions about the object and see photos of it as well. [...]”

(a) “ [...] yeah, I think cleaning. You know, so many things do get grimy and again, I think it should be in consultation with a conservator. But say you have a whole batch of similar objects and there aren't any big issues with friable surface [for example] then I think you can [...] probably do some cleaning. [...] again as long as there are caveats about how a conservator should be involved [...] in designing the cleaning process. And yeah, we can talk about all that too, about my concerns about having a non-conservator performing any kind of minor treatment. And cleaning is a treatment, because again it is irreversible. You're removing something, [...] even if it's dust, it could also be residues from an archaeological vessel. [...] it has to be done very carefully, with a lot of thought.”

“ [...] before any treatment, even any cleaning is embarked upon, I would suggest that a conservator be involved. And that could even be done remotely, again. However, if the conservator is not there in person, directly involved, I think there has to be some recognition that whatever the outcome is of the treatment can't be the responsibility of the conservator. [...] many of the treatments are not really reversible, such as cleaning and consolidation, [...] many things we do are not really reversible completely, and there just needs to be recognition of that as well.”

(b) “It gets more difficult when you're talking about stabilization and consolidation because consolidation, which is when you introduce a dilute adhesive in order to [...] preserve something [...] That gets really tricky, and [...] It's largely irreversible. Yeah, even though in
conservation, in the old day they would say, ‘all of our treatment should attempt to be reversible.’ They realize that [...] that's not realistic. Now they say, ‘you should try whenever possible to make them re-treatable’. [...] So yeah, I think I'd stay away from stabilization for a non-conservator, and consolidation.”

“My other caution for a non-conservator doing treatments is the health and safety issues, [...] there's a chance you might be working with solvents, and you need to be aware of the need for ventilation and possibly protective gear, the flammability, toxicity, that sort of thing. And [...] the objects themselves, they can be hazardous, [...] many ethnographic materials, were treated with [chemicals.] So some of these things are really toxic, [...] a non-conservator museum staff person needs to be aware and take necessary precautions, even if they're cleaning because you're disturbing whatever might be on there.”

Jennifer: “[...] like I mentioned, for a tear repair, I think would be okay to demonstrate and some basic surface cleaning. Flattening, I’m not really prepared to do that today, but it’s something I could potentially do in the future.”

(a) “Yes, but with kind of a caveat – I don’t want anybody to think that they can just try this at home, without having some understanding [...] not all two papers are alike and knowing when you can attempt it and when not to is kind of an important thing”

(b) “Well I would say particularly papers are really darkened and brittle, trying to mend it or surface clean, I wouldn’t attempt. When it’s at that stage then you should talk to a conservator, you run risk of creating what are called tide lines when you introduce moisture to something that’s got a lot of discoloration, you can cause that discoloration to move and make an even worse looking stain. And I’ve seen that happen, so. Yeah, and also on certain
kinds of papers, like other kinds of fragile papers [tracing papers or very thin papers], I wouldn't attempt either.”

Kate: “[…] the main thing […] would be vacuuming and different kinds of techniques for vacuuming. For digital […] using the read-write blocker […] Just showing what it is and how it works […] it’s a nice piece of knowledge to have if you do get confronted with working with a digital collection. […] Cause it kind of covers you, you know, makes sure that you’re not doing any harm. […]at least to] show some of the tools that we work with that it might be good for a collection manager to be aware of.”

(a) “it should be fine for you to share […] videos, as long as they are not for commercial purposes.”

(b) “So in the electronic media realm I would say not to play back video tapes, I would go to somebody who’s an expert in video […] and also, things like floppy disks, […] they’re older and they can be in bad condition and they can hurt your equipment and your equipment can hurt them, […] I would say things like handling hard drives and optical disks is safer, but I would use that read-write blocker. […] I wouldn’t apply an adhesive to anything without knowing what you’re doing. I wouldn’t use solvent or water-based cleaning methods, unless, I mean, you know for outdoor sculpture […] maybe get some advice from a conservator to start with, but […] in that case cleaning with water is generally pretty safe, I mean those things are out in the rain all the time. […] I would stick to more [mounts and stabilization] rather than trying to actually do a repair yourself. I know that one of the topics that collection managers were interested in was like stabilizing beadwork and textiles […] there might be some techniques that I would go to a textile conservator to ask about that […].”
Beth: “I think it is very important to get quite a bit of training and reading under one’s belt before attempting any treatment as there are a fair number of nuances that can suddenly or slowly cause problems - for example, while surface cleaning is generally considered to be “safe”, selecting the right kind of eraser for the type of paper surface and media is very important so as not to damage surface texture or coatings.”

(a) “I will not have the time to do so, and refer you to the large number of videos already available.”*

Paulette: “[…] That's tricky because every piece is different. […] I think that's sort of the danger of showing repairs in stabilization, like […] either vlogs or this type of thing […] you would have to know enough to make adjustments. […] I think the goal would be to teach something so that one would know when to call someone more than teaching conservation. If you're using the correct materials, most stitch repairs are reversible and, […] are not going to cause damage, but they can. […] at this point in my career I've undone enough very well-meaning repairs and mounting […] I get calls […] from private clients too who clearly are just wanting to figure out how to repair something or clean something on their own. And I don't want to be liable for someone, to give out advice and then things go wrong. [As far as stabilizing a tear in a textile…] again I think it depends on the background of, you know, the comfort level of that collections manager. […] it might make sense, like if someone's comfortable, they could thread a needle and are familiar with the materials, maybe at least consulting a conservator and just talking about what types of materials to use and what types of stitches. Because even a bad, sort of an ugly stitch repair a lot of times, they may be unsightly, but it can still hold it together and prevent further damage from snagging or tearing. […] Sometimes it damages the artwork. But if one's sensitive about it with some
knowledge then I think so, because when things are torn in the collection there's a really good chance of just snagging it accidentally and making it much, much worse.”

(a) “Yeah I think it depends on what we're doing – like something that is done in collections all the time, especially something that seems as simple as, like, vacuuming textiles. [...] so maybe like viewing a video about something like that, like when to use the micro attachments or when to use brush attachments or when to use a screen or when to wear gloves, and all those different considerations [...] Maybe talking about the materials for repairs, or something like, maybe an open seam but it would have to be- I guess there would be a lot of 'this is what to look out for,' than 'this is how you repair this one thing.' [...] Maybe, things to consider, like if you have a costume collection, what are the things you need to think about for, if you're going to store them hanging or if they should be in a box and things like that. But I think a lot of that it again is addressed in/you can find that in some of the Conserve O'Grams and CCI Notes.”

(b) “I would say any kind of wet cleaning. [...] Or stain removal, or yeah. Probably adhesive repairs, not a good idea.”

When conservators were asked at what point a collections manager should call a conservator, the interviewees said either when the collections manager is unsure of how to handle the situation, if the damage is unstable or in danger of worsening, or if it cannot be handled without aggravating the damage. If, however, a collections manager is not able to afford to hire a conservator, the interviewees had a few different suggestions. Four out of the six interviewees suggested improving storage as an interim solution, until a conservation treatment can be implemented, and Paulette further noted that a damaged object should not be put on loan. Kate suggested that at the time damage is discovered, the collections manager should document
the damage immediately, and if it is a case of a broken object, all of the parts must be kept together. Additionally, she suggested keeping the damaged object away from the other objects so as to prevent aggravating the issue. Beth suggested that beyond improving storage, a collections manager might consider evaluating a damaged object for the creation of a digital surrogate, of course this might be costly if the museum does not already have this type of equipment already on hand. Two of the conservators suggested that the collections manager or museum should attempt to raise funds for conservation if they cannot hire a conservator. Finally, Nancy made an important point that responding to damage can be made easier by working toward forming a relationship with a conservator even when there isn’t immediate damage to respond to; this way, when damage does occur, the collections manager already has a good relationship with a conservator and they can feel comfortable calling them for advice.

Each of the conservators interviewed then had suggestions for basic stabilization techniques that they believe collections managers should be capable of, although all with the caveat that collections managers should look to conservation professionals or online resources if they do not feel comfortable with certain treatments. Some of the suggestions given by the conservators interviewed stayed within the realm of what is already typical collections managerial duties, but all of the interviewees agreed that basic cleaning or vacuuming (informed by a reputable resource) would be something for a collections manager to do that could help a great deal in terms of preventative care as well as in response to low-level damage.

Jennifer, Judy, and Paulette all had suggestions for stabilization techniques within their realms of expertise that they believe collections managers could perform, but all under the caveat that the collections manager should have some background, training, or general knowledge of the materials they are working with. Judy, who specializes in objects conservation, tends to lean
more towards contacting a conservator if there is any kind of conservation concern. However, she does think that there are some treatments a collections manager might be able to do in consultation with a conservator. She specifically said that cleaning is one such technique, although she emphasized the caveat that even cleaning is a treatment and there is the danger of removing important information from an object during cleaning. Ultimately, Judy maintained that any treatment performed by a collections manager should always be done in consultation with a conservator and with the recognition that the conservator should not be held responsible if they are not directly involved in the conservation treatment. Jennifer (a paper conservator) mentioned a few techniques that could be performed for damaged paper, but like Judy, did so with caveats; she held that collections managers should not do these treatments if they do not have some understanding of different types of papers including when treatment should not be attempted, such as with especially brittle or inherently fragile papers.

Paulette noted a few different techniques for textiles that a collections manager could do if they have some prior experience with sewing. She also suggested vacuuming, but again emphasized that it all depends on the background and training of the collections manager. She recommended that rather than demoeing any specific stabilization techniques, the goal would be to teach someone enough so that they would know what is possible for them to do and when they should call a conservator. She, like Judy and Jennifer, notes the potential danger for a conservator who offers advice but is not involved first hand in a treatment, to be held liable for damage to an object occurring as the result of a collections manager carrying out treatment incorrectly. She proposes that teaching non-conservators about proper techniques and materials might be preferable to teaching specific techniques, but still notes that certain basic techniques would be very useful for collections managers to learn.
The suggestions of stabilization techniques that Nancy had for collections manager were already within the job description of a collections manager. She did indicate that there are techniques beyond those suggestions that she is willing to and does regularly teach, but did not specify further. The other paper conservator interviewed, Beth, noted that a collections manager could perform surface cleaning, rehousing, or basic mends, but that anyone doing these treatments should be well-trained before attempting anything, because any and all treatments have the potential to cause further damage. She suggested that anyone attempting treatments should learn what resources should be trusted and keep up with trainings. Neither she nor Nancy was able to provide a demonstration, but said that there are many tutorials online that are already available.

Some of the stabilization techniques that Kate suggested for objects were, like Nancy, things that a collections manager should already be doing. However, she echoed Judy by noting some more involved techniques that could be attempted if done in consultation with a conservator. Kate, who also works with digital media, then discussed the fact that museums are still figuring out how to tackle conservation concerns in that area. She emphasized that there are many basic-level techniques that collections managers can learn which would help immensely in the preventative care of these types of objects; however, there are things that should be left to the experts, in particular anything that is beyond the preventative level.

As far as treatments that should never be attempted by non-conservators, Kate, Paulette, and Judy noted that anything involving the use or introduction of adhesives or solvents should not be attempted without being certain you know what you are doing. Judy also warned against treating ethnographic objects unless you can be certain they have not been treated with harmful chemicals in the past, which was once a common preservation practice. Finally, Jennifer advised
against attempts to treat papers that are inherently fragile, or those that have become especially fragile due to age or other circumstances.

**Question:** Do you have recommendations for suppliers of materials or resources/related literature for increasing preservation, stabilization, or conservation skills/knowledge?

<table>
<thead>
<tr>
<th>Recommended Resources</th>
<th>Material Vendors</th>
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</thead>
<tbody>
<tr>
<td>• AIC</td>
<td>• Gaylord</td>
</tr>
<tr>
<td>• The International Preservation Studies Center (IPSC)</td>
<td>• University Products</td>
</tr>
<tr>
<td>• NPS</td>
<td>• Talas</td>
</tr>
<tr>
<td>o National Center for Preservation Technology and Training (NCPTT)</td>
<td>• Light Impressions</td>
</tr>
<tr>
<td>• Northeast Document Conservation Center (NEDCC)</td>
<td>• Hollinger</td>
</tr>
<tr>
<td>• AATA Online (Getty Conservation Institute)</td>
<td>• Uline</td>
</tr>
<tr>
<td>• The Sustainable Heritage Network</td>
<td></td>
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<tr>
<td>• Other: Regional and local museum associations, attend conferences and meetings</td>
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<table>
<thead>
<tr>
<th>Nancy</th>
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<tbody>
<tr>
<td>• Campbell Center of Mount Carroll</td>
</tr>
<tr>
<td>• Light Impressions</td>
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<tr>
<td>• NPS</td>
</tr>
<tr>
<td>o Museum Handbook</td>
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<tr>
<td>• CCI</td>
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<td>o Notes</td>
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<table>
<thead>
<tr>
<th>Judy</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The Care of Prints and Drawings, by Margaret Holben Ellis</td>
</tr>
<tr>
<td>• AIC</td>
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<tr>
<td>• How to Identify Prints, by Bamber Gascoigne</td>
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<tr>
<th>Jennifer</th>
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<tr>
<td>• AIC</td>
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<tr>
<td>o Caring for your Treasures</td>
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<tr>
<td>o Connecting to Collections Care (C2C)</td>
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<tr>
<td>• Conservation OnLine (CoOL)</td>
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<td>• PACCIN</td>
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<table>
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<tr>
<th>Kate</th>
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<tbody>
<tr>
<td>• NEDCC</td>
</tr>
<tr>
<td>o Preservation 101 Course</td>
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<tr>
<td>• AIC</td>
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<tr>
<td>o C2C</td>
</tr>
<tr>
<td>o Conservation YouTube channel</td>
</tr>
<tr>
<td>• International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM)</td>
</tr>
<tr>
<td>Collections Managers</td>
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<tr>
<td><strong>Paulette</strong></td>
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<tr>
<td>• CCI</td>
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<tr>
<td>• Other: YouTube; vendor and educational resources, email lists and forums found on professional association websites (AAM)</td>
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<tr>
<td>• Minnesota Historical Society</td>
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<tr>
<td>• Smithsonian (vlogs)</td>
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<tr>
<td>• MuseumStudy.com</td>
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<tr>
<td>• NPS</td>
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<tr>
<td>• Conserve O’ Grams</td>
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<td>• CCI</td>
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<tr>
<td>• Notes</td>
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<tr>
<td>• Western Association for Art Conservators (WAAC)</td>
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</table>

### Table 5: Conservators: Recommended Resources and Material Vendors

This table is a collection of answers to different questions that were posed during the interviews. The “Recommended Resources” column includes those that interviewees endorsed as references for increasing knowledge or skills in preservation, stabilization or conservation methods.

<table>
<thead>
<tr>
<th>Collections Managers</th>
<th>Conservators</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Colleagues</td>
<td>5 AIC</td>
</tr>
<tr>
<td>3 AIC</td>
<td>3 NPS</td>
</tr>
<tr>
<td>3 NPS-Conserve O’ Grams</td>
<td>3 CCI</td>
</tr>
<tr>
<td>3 NPS</td>
<td>2 CCI-Notes</td>
</tr>
<tr>
<td>2 Resources from conferences</td>
<td>2 AIC-C2C</td>
</tr>
<tr>
<td>2 CCI-Notes</td>
<td>2 NEDCC</td>
</tr>
<tr>
<td>2 PACCIN</td>
<td>1 AAM</td>
</tr>
<tr>
<td>2 CCI</td>
<td>1 AATA Online</td>
</tr>
<tr>
<td>1 AAM</td>
<td>1 AIC-Caring for your Treasures</td>
</tr>
<tr>
<td>1 AAM-Registrars Listserv</td>
<td>1 AIC-Conservation DistList</td>
</tr>
<tr>
<td>1 AIC-C2C</td>
<td>1 AIC-Preservation subgroup</td>
</tr>
<tr>
<td>1 AIC-Collections Care Network</td>
<td>1 AIC-YouTube Channel</td>
</tr>
<tr>
<td>1 AIC-Conservation Wiki Page</td>
<td>1 Campbell Center</td>
</tr>
<tr>
<td>1 Basic Condition Reporting: A Handbook</td>
<td>1 The Care of Prints and Drawings</td>
</tr>
<tr>
<td>1 Conservation Concerns: A Guide for Collectors and Curators</td>
<td>1 CoOL</td>
</tr>
<tr>
<td>1 Google</td>
<td>1 ICCROM</td>
</tr>
<tr>
<td>1 Inside the Conservators Studio (blog)</td>
<td>1 IPSC</td>
</tr>
<tr>
<td>1 IPI</td>
<td>1 Light Impressions</td>
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<tr>
<td>1 Listservs</td>
<td>1 Listservs</td>
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</tbody>
</table>
Table 6: Comparison of Recommended Resources. Resource recommendations are organized in descending order according to the number of unique instances the resource was recommended within each group. For example, four out of the five collections managers noted colleagues as a go-to resource for them, while five out of the six conservators noted AIC as a good resource to reference for collections care. When recommendations were for sub-groups within other organizations, and this was counted as a mention for the overarching organization (i.e. Conserve O’ Grams is put out by the National Parks Service, and thus a mention of it counts for a mention of the specific resource, as well as for the overarching organization, in this case NPS). Underlined items represent overarching organizations, and items in bold represent resources that were recommended by both groups.

The Demos

The original intention for visually recording demonstrations by conservators was to include them in a how-to guide for collections managers on basic conservation techniques.

Although this is not included in this thesis, there was information that conservators provided during the demonstrations which is important to the overall discussion. The most relevant of this information is detailed below. This information includes brief descriptions and images of the techniques that the conservators demonstrated and gives an idea of the level of complexity of stabilization techniques that they recommend for collections managers. The cleaning techniques demonstrated are done in order to remove dust and grime that builds up from handling of objects as well as due to time in storage. Also illustrated is list of materials needed to perform these demonstrations and the corresponding uses and cost of each of the materials; this information
demonstrates the feasibility of collections managers carrying out these techniques in their own institutions.

Judy Greenfield: Sponge cleaning 3D objects and vacuum cleaning.

Figure 5: Judy demonstrating how to surface clean a Katsina using a cosmetic sponge.

Figure 6: Judy demonstrating how to surface clean a Katsina using a soft-bristled brush and a vacuum with a screen covering the nozzle.

Jennifer Parson: Mending a tear and surface cleaning works on paper using common paper conservation tools and materials.

Figure 7: Range of materials used for surface cleaning and mending simple tears for works on paper.

Figure 8: Jennifer demonstrating surface cleaning using grated eraser and a Hake brush.
Kate Moomaw: Vacuum cleaning a 3D object.

**Figure 9:** Kate demonstrating vacuum cleaning a 3D object using a Giotto puffer and Nilfisk vacuum.

**Figure 10:** Nilfisk brand vacuum – has variable suction and high efficiency particulate air (HEPA) filter.

Sarah Melching: Photo corners: mounting works on paper to minimize handling.

**Figure 11:** Sarah demonstrating different folds and adhesive techniques for mounting a work on paper using paper photo corners.
Allison McCloskey and Francisca Lucero: Surface cleaning textiles using a vacuum.

**Figure 12**: Allison demonstrating surface cleaning a textile using a soft-bristled brush and Nilfisk vacuum with appropriately sized attachment head.

**Figure 13**: Range of materials used for surface cleaning textiles.

Eddy Colloton: Using a read-write blocker for digital media preservation.

**Figure 14**: Read-write blocker.
<table>
<thead>
<tr>
<th>Material</th>
<th>Use</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cosmetic Sponge (latex-free)</strong></td>
<td>Can be used to dust objects by lightly dabbing the surface (should not be used on materials with a friable surface).</td>
<td>These can be purchased from Amazon or cosmetic supply stores for very cheap.</td>
</tr>
<tr>
<td><strong>Staedtler vinyl erasers</strong></td>
<td>Safe for use on sturdy papers for surface cleaning. One technique is to use grated eraser gently rubbed onto the paper surface to remove grime or pencil markings.</td>
<td>Can be purchased for cheap from most art supply stores or archival suppliers.</td>
</tr>
<tr>
<td><strong>Soft-bristle brushes</strong></td>
<td>Make-up brushes or Hake brushes can be used for surface cleaning (should not be used on materials with a friable surface).</td>
<td>Hake brushes can be purchased in different sizes from a variety of art supply stores. Soft make-up brushes are a cheaper alternative.</td>
</tr>
<tr>
<td><strong>Photo corners</strong></td>
<td>Used for keeping works on paper in place when stored in hinged mats. Can use paper or plastic depending upon the stability and thickness of the paper, and should be acid-free and lignin-free/conservation standard.</td>
<td>Can be purchased from art supply stores.</td>
</tr>
<tr>
<td><strong>Puffer</strong></td>
<td>These are good for dislodging dust from objects, for objects with more fragile surfaces, or for materials like plastics which scratch easily. Use in conjunction with a low-suction vacuum with a net barrier so that dislodged dust particles are continuously cleaned away.</td>
<td>Giotto puffers can be purchased for about $10 from Amazon.</td>
</tr>
<tr>
<td><strong>Low Suction Vacuum and Netting/Mesh Barrier</strong></td>
<td>A small piece of netting or mesh placed over a vacuum hose acts as a barrier between object material and vacuum; it can be easily attached to a vacuum hose using a rubber band. Nilfisk brand vacuums are recommended as suction level can be adjusted.</td>
<td>Netting/mesh can be purchased for cheap from local fabric stores; vacuums are more expensive, but last for a long time and can be used in cleaning a variety of objects.</td>
</tr>
</tbody>
</table>

*Table 7: Conservation Materials for Collections Managers.* Information was gathered from recorded demonstrations given by the interviewed conservators.
b This second paragraph was given in a follow up email (see Appendix F, pg. 205).

c This answer was given in a follow up email (see Appendix F, pg. 144).

d This question was not posed to Arleyn during the in-person interview, but in a follow-up email which unfortunately did not receive a response.

e This answer was given in a follow up email (see Appendix F, pg. 144).

f It is unclear what Paulette is referring to here.

g Nancy did not give an answer to part (b) of this question.

h This second paragraph was not part of Judy’s answer to this question, but was given during a supplemental discussion about the cautions and caveats for a non-conservator doing treatments (see Appendix F, pg. 219) and the information that was relevant to this question was pulled and included here.

i Again, this paragraph was not part of Judy’s answer to this specific question, but was given during our discussion about cautions and caveats about treatments performed by non-conservators. The information that was relevant during that discussion was pulled and included here.

j This answer was given in a follow up email (see Appendix F, pg. 244).

k Beth did not specify anything for part (b) for this question.
Discussion

Analysis of the Responses

The educational backgrounds described by each of the interviewees demonstrate support of the descriptions of typical collections management and conservation training that are given in Museum Registration Methods (MRM5), the American Alliance of Museums’ 2017 National Museum Salary Survey, and in AIC’s definition of “conservator” (see Table 1). All of the collections managers that were interviewed have master’s degrees in museum studies, or have graduate level training in collections care in addition to an advanced degree in a related field. Also interesting to note, all of the collections managers interviewed have worked with a variety of collection types. Although MRM5 defines registrars as academic generalists, the nature of the collections management training and work that were described by each of the interviewees evidences a generalist approach in that particular job as well. This fits in terms of the overlap that happens with these two positions as described in the Introduction; additionally, having such varied collections experience is extremely useful for collections managers who often end up caring for many different types of objects within a single collection. There is evidence of this variation in the collections of the institutions of the interviewees: the Denver Art Museum collections consist of contemporary art, ethnographic objects, works on paper, and bronzes, to name a few; at the CUMNH there are ethnographic objects, archaeological items, and works on paper including historic documentation; and the CUAM collections contain contemporary mixed media pieces, Neolithic ceramics, and works on paper, among many other types of objects.

The conservators expressed a variety of different answers as far as training. All have significant training beyond an undergraduate degree, which is consistent with the descriptions of
the position given in MRM5, AAM’s 2017 National Museum Salary Survey, and by AIC which each note formal conservation training, advanced training in related concentrations, and/or lengthy apprenticeship being typical educational avenues for conservators. Five out of the six conservators have traditional master’s degrees, and the sixth has a graduate diploma in conservation. At least three out of the six completed multiple internships in addition to their master’s degrees, and another one of the conservators went on to complete an additional certificate and a PhD in conservation. The differences between their backgrounds, however, may also have to do with changes in training expectations over time – as Judy Greenfield mentioned during her interview, it is more difficult nowadays to get into a conservation program without already having hands-on experience, whereas when she was in school, hands-on training with professional conservators was much more difficult to come by. AIC’s definition of a conservator supports the idea that conservation training involves a lot of hands on experience, noting that “lengthy apprenticeship with experienced senior colleagues” is a common form of training. The requirements listed for the Art Conservation program at Buffalo State (which is the program that Paulette Reading attended) also support this:

“Successful applicants have significant supervised pre-program internship experiences often conserving a variety of objects. Pre-program internships should be intensive enough and in a variety of conservation specialties to give applicants a basic understanding of treatment methods, materials and techniques, conservation problem solving and related issues. Successful candidates usually have about a year of supervised hands-on conservation treatment experience.”

50 “About Conservation.”
Similarly, the admission requirements for the Art Conservation Master’s program at the University of Delaware state that “In addition to coursework, applicants must have completed at least 400 hours of documented conservation experience under the supervision of a conservator. […] Above all, applicants are expected to be thoroughly acquainted with conservation as a career option and to possess a fundamental knowledge of its philosophy, ethics and basic working procedures.” These program descriptions match the training of the interviewed conservators, and support the descriptions displayed in Table 1 of the intensive and more specialized training that conservators go through. The differences in training between the positions of collections manager and conservator lends itself toward the notion that the two fields are very different, but the similarity in undergraduate training shows a shared foundation for the work that is being done in each of these positions, as well as a common base understanding of cultural heritage and the related value systems. Even the graduate level training is similar between the groups of professionals interviewed; it is primarily in forms of hands-on experience and additional training that is required of conservators where the two really begin to diverge.

The collections managers were then asked to describe the most common objects/materials (i.e. ceramics, paper, wood, etc.) they have in their collections, as well as the most fragile materials in their collections in order to understand what types of objects they are caring for, whether that relates to their previous training and education (this was generally true), and to get a sense of their biggest preservation concerns. Between the similar collection types, there were similarities between the answers to this series of questions; the three anthropological or archaeological collections managers noted ceramics as being the most common, and all noted perishables as being among the most fragile. Conversely, the two art collections managers noted

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works on paper as the most common material in their collection. As far as fragile objects, however, there were additional concerns that were unique to each collection. For example, Christie Cain described fragility issues that have to do with poorly executed previous reconstructions, while Britt Scholnick noted concerns about mixed media pieces in the long-term. These issues were related to anything from the materials within the objects themselves, to the storage environment, to previous use, treatment, or handling and thus evidence a wide range of factors that can affect the preservation of collections materials. According to their answers, damage is overall more common in the anthropological or archaeological collections than in the art collections, which appears to be due both to the nature of the objects when they enter the collections, as well as to the increased access that the art museums have to professional conservation. This can then be linked to the eagerness of two of the anthropology collections managers in terms of learning stabilization techniques and the reduced enthusiasm toward this on behalf of the two art collections managers.

As far as what ends up being the most affected by there being damaged objects in collections, the collections managers noted use by the public/researchers and use in exhibits as the top most affected areas. The public, researchers, and the visitors who view exhibits are all museum stakeholders, and thus represent the group most negatively affected by damaged objects. When museums are unable to use or show objects because they are unstable, the museum is not fulfilling one of their roles of making collections as accessible as possible to their communities, as expressed in the National Standards and Best Practices for U.S. Museums and in AAMD’s Professional Practices in Art Museums. Use by the public and use in exhibitions were again repeated factors that collections managers consider when determining what objects should get
conservation work. Budget, however, was another big concern. Thus collections managers are trying to maintain access to and preservation of their collections on a tight budget.

Conservation work is expensive, so by asking whether collections managers are willing to learn some of the basics of conservation, whether conservators are willing to teach those skills, and by researching suggested conservation materials while paying attention to cheap options, the goal is to improve access to collections without drastically increasing expenses. Thus in asking about common types of damage, it could be determined what types of stabilization or conservation methods might be most useful for different collections managers to learn; interestingly, there was not necessarily a correlation between the common types of damage and the desired stabilization training that was described by the interviewees. Mount-making was noted by only two out of the five collections managers as a stabilization method that they would like to learn more about, yet based on the answers they gave as to common types of damage, mount-making would be beneficial to all of the collections. Customized or archival mounts in storage reduces handling as well as stress on objects and has the potential to reduce the number of objects breaking in storage, tears, acid burn, and cockling which occurs from the use of non-archival materials, as well as could stabilize prehistoric damage or improper reconstructions, thus preventing further damage. Alternatively, the top stabilization technique that the collections managers expressed interest in learning was cleaning. Although this does not correspond to typical types of damage, it is a great form of preventative care, and is a technique that conservators noted that they are willing to teach.

Surprisingly, only some of the collections managers interviewed expressed a range of conservation techniques that they would be interested in learning, while the others expressed hesitation in learning anything too far into the realm of conservation. That said, four out of the
five collections managers interviewed expressed interest in expanding their skills and that they regularly seek out opportunities through professional development. The collections managers who were less interested in learning more in terms of conservation were those who have greater access to professional conservators. Arleyn, however, presented a differing perspective; she did not express engaging in as much professional development as others, and did not show much interest in learning additional basic conservation techniques. It is probable that her hesitation can be tied to her pending retirement, which was within a year of when her interview was conducted. Her answer, however, did also include references to the difference between fine art conservation and the conservation of ethnographic and archaeological objects:

“[…] being an anthropological collection, we have a different perspective than many art museums that want perfect pieces. We have received a few donations of historic pottery that was flawed […] that was turned down by the Heard Museum, because they only want museum quality art pieces […] we felt that the pieces still had a lot of value in terms of learning for students and for display too. We think that ware patterns and breakage and things are part of the story. So it’s just a different perspective,” (see Appendix F, pg. 188).

This commentary offers insight into some differences between the conservation of fine art versus the conservation of ethnographic and archaeological objects. Miriam Clavir echoes this idea in her book Preserving What Is Valued: Museums, Conservation, and First Nations where she discusses the view that “ethnographic and archaeological conservation should seek to preserve the object’s life history at the time of collection,” while fine art conservation is often concerned with returning objects to their original state.\textsuperscript{53} The argument here is not that conservation should not be done to ethnographic and archaeological objects, but that it must be

\textsuperscript{53} Clavir, “Conservation Values and Ethics.” Pg. 33.
approached differently. Thus, while her circumstances may explain her level of interest in learning additional basic conservation techniques, her answers show consideration of the different possible meanings of conservation and what must be considered prior to conducting treatments.

Conservators, on the other hand, seemed quite willing to teach a range of techniques. This willingness supports AIC’s vision which notes that conservators should share their knowledge with other collections care professionals.\(^{54}\) The hesitation of collections managers to go too far into the realm of conservation seems somewhat inconsistent with their unanimous agreement that a guidebook on basic conservation techniques for collections managers would be highly useful. On the other hand, it seems that it might not be hesitation to learn more, but that they are not eager to do any treatments without proper training first. A comment from Britt in response to what stabilization techniques she would be interested in learning touched on this, “I’m all about the no harm, so at the end of the day, I don’t know how much, how much more than I already do that I would feel comfortable doing. […] I’m not a fine arts conservator, I don’t know chemistry, I have no artistic skill whatsoever,” (see Appendix F, pg. 162).

But the conservators are willing to do that training. All of the conservators that were interviewed in person were willing to teach basic conservation techniques, and Kate ended up recruiting four of her conservator colleagues at the Denver Art Museum to provide demonstrations who were in addition to the original list of interviewees. Also noteworthy is the fact that all of the conservators who were asked about being a part of a potential session or workshop on this topic at the Colorado-Wyoming Association of Museums showed interested in participating.\(^{1}\) The real hesitations of conservators is with regard to the level of conservation

\(^{54}\) “Association (AIC).”
techniques that they would be willing to show (most interviewees said that non-conservators should avoid treatments involving chemicals, solvents, or adhesives), and the emphasis for anyone conducting treatments to recognize that all objects and all situations are different. Thus the conservators stressed the caveat that conservation tutorials may not be appropriate for every similar situation; anyone conducting a treatment must have full understanding of the materials they are working with or trying to repair. For example, Beth noted that “while surface cleaning is generally considered to be “safe”, selecting the right kind of eraser for the type of paper surface and media is very important so as not to damage surface texture or coatings,” (see Appendix G, pg. 247). Additionally, the Canadian Association for Conservation’s Code of Ethics and Guidelines has provisions for conservators training others on conservation treatments, and states that “Prior to providing training or detailed information that pertains to conservation treatments, the conservation professional shall set, where necessary, appropriate criteria for qualifications and experience of the participants.”55 Beyond this, one of the ongoing concerns with conservation or restorative treatments is taking it too far (where the object is either in worse condition than when it began or is farther away from its original state) or doing something that cannot be reversed. And as Judy noted, nothing really is reversible. Even cleaning, which is one of the most basic treatments, removes something from an object and cannot be undone.

Because everything is so situational, Paulette suggested that “[...] I think the goal would be to teach something so that one would know when to call someone” rather than teaching specific techniques (see Appendix G, pg. 254). There is also the hesitation to teach someone something and then be liable if something goes wrong – Judy and Paulette expressly mentioned this during their interviews, Judy saying that if a conservator is not there directly supervising a

55 Code of Ethics and Guidelines for Practice. Pg. 10.
treatment, “there has to be some recognition that whatever the outcome is of the treatment can’t be the responsibility of the conservator” (see Appendix G, pg. 217) and Paulette noting that “I don’t want to be liable for someone, to give out advice and then things go wrong.” (see Appendix G, pg. 255). Although the AIC guidelines do not mention any specific rules against or for providing consultation to non-conservators, it does take seriously the potential for conservators to delegate their work and provisions that not only are they responsible for work that is delegated, but that “Work should not be delegated or subcontracted unless the conservation professional can supervise the work directly, can ensure proper supervision, or has sufficient knowledge of the practitioner to be confident of the quality of the work.”56 This shows an awareness of the responsibility that conservators have to the correct treatment and preservation of objects, and thus supports Judy’s and Paulette’s concerns that if they are not directly involved (i.e. supervising) a treatment, then they cannot be held responsible for the results.

Nevertheless, the willingness of the interviewed conservators to teach is in line with the many examples given in the Introduction which argue that conservation involves the whole scope of collections care professionals. Salvador Muñoz Viñas remarks that conservation “has diffuse boundaries, since it may involve many different fields with a direct impact on the conservation object.”57 Judy expressed almost the exact same sentiment in her interview, saying that “sometimes the line between collections care and conservation is blurred. It’s not such a distinct line,” (see Appendix G, pg. 217). This perspective shows that the preservation of collections objects is carried out by many, and often involves collaboration and sharing of knowledge between the collections care fields. This is further evidenced in Frank Matero’s article, “Ethics and Policy in Conservation,” where he notes that “The basic tenets of

56 “AIC Code of Ethics and Guidelines for Practice.” Pg. 7.
57 Muñoz Viñas, Contemporary Theory of Conservation. Pg. 10.
conservation are not the sole responsibility of any one group. They apply instead to all those involved in the care and management of cultural heritage […].58 and most significant is the fact that AIC promotes the exchange of knowledge between conservators and other allied professionals within their mission statement.

Questions about preservation materials and supplies were asked of collections managers in order to compare answers to the common supplies that conservators use in their practice. It was expected that there would be differences between the two professions – collections managers are coming from the angle of preventative care while conservators are performing invasive treatments. However, this question was asked not only to see whether collections managers are using archival materials in storage, but also to see whether they might already have any of the same supplies as conservators. Collections managers are using archival materials, but there was essentially no overlap with the supplies used by conservators, save for the use of B72 (albeit for different purposes between the two groups). There are, however, many materials that conservators are using that were not listed among the most common, but were demonstrated during the video-recorded demos. These are the materials that collections managers could include in their corpus of care supplies in order to engage in some basic level conservation.

Table 7 shows a list of the supplies that were used by conservators during their demonstrations of techniques that could be performed by collections managers, but which were not mentioned by collections managers as being among their archival materials. It is possible that these are within some of the collections manager’s assortment of materials, but are not used directly for storage and thus were not given in answer to Question 5 in Appendix E. Nevertheless, these supplies are extremely useful in conducting basic cleaning for many different types of objects, and most of

them are inexpensive which is especially important for those museums which cannot afford frequent professional conservation work.

Finally, collections managers were asked what resources they currently reference for object care, professional development they engage in, and what more they are looking to learn. These questions were designed to gauge what collections managers are already doing to increase skills and knowledge surrounding collections care, to determine what more might need to be included in a collections care guidebook, and to ascertain whether there is overlap between the resources they are referencing and those which were recommended by conservators. Additionally, collections managers’ answers regarding what they want to learn could be compared to the types of stabilization techniques that conservators are willing to demonstrate.

In terms of collections care resources, looking at the overarching organizations that distribute information or from which sub-groups are created (i.e. AIC and NPS), there is some overlap between where collections managers go for their information, and which resources conservators recommend. Table 6 shows a comprehensive list of all of the resources that were recommended by interviewees during their interviews next to the total of unique instances that they were recommended. AIC was among the top two most recommended resources by both groups, and resources put forth by the National Parks Service were also highly recommended. However, there are numerous sub-groups or resources that are distributed by those organizations, and this is where some of the primary differences were between what collections managers reference and which resources conservators recommend. Although collections managers are tapping into some of the same resources, they do not seem to be accessing the full range of material that is available to them. For example, AIC was mentioned by both groups as a
reputable collections care resources, but collections managers noted using two different sub-groups within that organization while the conservators recommended four others.

Additionally, the conservators were able to recommend more resources in total than were the collections managers, indicating that collections managers either are not aware of some of the other places to go to for information, or that they do not see those resources as ones they can use. One of the most important things to point out about the resources that collections managers reference is that other colleagues are at the top – this includes other collections managers and conservators, and shows a tendency of collections managers to seek advice from those who can give reputable recommendations rather than simply searching for information themselves, which may yield unreliable results. Conservators, too, recommend consulting as a first option for when a collections manager is unsure or uncomfortable with how to tackle collections care issues.

Especially with the increasing wealth of information available on the internet, one of the dangers is not knowing which resources to trust. Thus going directly to the source (i.e. conservation professionals) should not be underestimated. Lindsey Vogel-Teeter touched on this issue during her interview in response to the question of whether a guidebook would be a beneficial resource, commenting that while online videos and YouTube are great visual resources “[…] it’s really hard to know who to trust, […] so a PDF would be great to start […] and then if [it’s linked] to videos […] to see it in action […],” (see Appendix F, pg. 178). Based on the interviews then, collections managers are looking for reliable resources to add to their scope and conservators are indicating that there are additional resources out there. All of the resources that were suggested by conservators either are entirely open to other collections care professionals or at least have sections that can be accessed by non-conservators, so the issue to overcome is making collections managers aware of these resources and convincing them that they are applicable.
Furthermore, while all of the collections managers do engage in some level of professional development, most are looking to learn more. This taken with the fact that collections care information is so dispersed and that collections managers are not taking full advantage of the resources that are out there, the question becomes, how do we engage collections managers in the appropriate collections care resources, and what methods of dispersal will be most effective or useful? All of the collections managers interviewed agreed that a kind of guidebook on basic stabilization techniques for collections managers would be highly beneficial. Although the collections managers also agreed that hands-on trainings would be best, their concerns were that this is not always possible for some museums due to factors like budget or constraints on staff time, and that at least having access to a resource that contains stabilization how-to’s, lists of conservation and collections care resources, and discussions of conservation supplies or object materials would be invaluable to such institutions. This points to the need of a method for pulling together collections care information – such as lists of reliable resources, where to find appropriate trainings, information about how to carry-out basic conservation techniques, appropriate materials and respective costs, and who to turn to for guidance – and consequently distributing that collected information to collections managers. The initial expectation going into this research was that there would be more tension between these two groups when it came to exploring how to bridge the area between them, but the interviews evidenced recognition of the different levels of experience between the professions and a willingness to both learn from and teach each other. The real issue then, it would seem, is that because conservation requires knowledge outside of the typical collections management training, there is hesitation to enter that realm in any capacity on the side of collections managers. Additionally, although some of the collections managers who were interviewed noted
referencing conservation resources, not all of them either know about those resources or perhaps do not see them as being applicable to their level of collections care. Further discussion of how to address these obstacles is addressed in the Conclusion.

The Questionnaires

Revisions

This thesis began with a version of the questionnaire which was reviewed by committee and approved by the Institutional Review Board; however, after completing the first interview with a collections manager and after some further discussion with the committee about phrasing and terminology used in the questions, a few questions were added or revised to improve clarity. Below are the changes that were made; question numbers below correspond to the revised version of the questionnaires (see Appendix E). Questions that are in italics were added, and underlined sections represent revised parts of questions. For each question list, the following initial question was added in order to allow me to keep track of the interview recordings: Could you please start with your name, job title, and organization?

Changes to the Collections Managers Questionnaire

Q2: What types of material do you care for?

a. What is the most common material in your collection?

b. What are the most fragile materials in your collection?

Part “a” was added in order to be able to later compare whether the common materials correspond to common damage or stabilization techniques that the collections managers were most interested in learning. The original word for part “b” in this question was “sensitive” which caused confusion when considering anthropological objects and cultural sensitivity. This
question was not designed to address cultural sensitivity, but rather materials that are fragile and more prone to deterioration.

**Q3:** What preventative conservation methods do you currently engage in? (i.e. IPM, light mitigation, art handling training, etc.)

c. *Do you interact with or interview living artists about their work?*

Par “c” in question 3 was added after reading more about the growing suggestions for collections care professionals to discuss with living artists the potential avenues for addressing damage to their work, should it occur in the future. This was added under the assumption that this is an emerging practice, and that it may not be applicable to all collections.

**Q4:** *Have you done stabilization work before? If so, what kind?*

Question 4 was added in order to get a sense of whether and what kind of stabilization work collections managers are already familiar with. This allowed for comparison between the experiences of the interviewees, as well as comparison to the techniques collections managers expressed interest in learning and the stabilization methods that conservators noted that they are willing to teach.

**Q5:** What *archival* materials do you use in collections storage? And where do you order your supplies from?

The word “archival” was added here for clarification purposes. “Materials” alone was not specific enough to draw the desired responses about whether or not archival materials were a regular part of collections care for each of the interviewees.

**Q10:** What is your museum’s operating budget? *And do you have funding specifically for conservation?*
The second half of this question was added to get an understanding of what different institutions can afford as far as conservation work. The first part was originally a sub question, and was later broken out into a separate question with this addendum in order to improve organization of questions and succinctness of answers.

**Q11:** What *stabilization* techniques would it be most useful for you to learn?

The word “stabilization” was added to this question for clarification purposes.

**Q12:** Do you feel you, or other museums would benefit from a kind of guidebook on basic *stabilization techniques for collections managers*?

a. Do you think something else might be more useful (i.e. trainings, workshops, videos, etc.)?

This important question had not been designed as part of the original questionnaire. After discussions with my committee, it became clear that I was lacking a question that addressed whether or not collections managers saw the introduction of a guidebook on basic conservation as desirable. Additionally, after the first interview with Christie Cain, her short answer to the first part of this question spurred the idea that there might be more to discuss on the topic. Thus, part “a” was also added in order to increase discussion about what would be best for collections managers as far as increasing access to collections care information.

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**Changes to the Conservators Questionnaire**

**Q3:** What are *some of the most common* materials you use in your practice?

This phrase was added to help guide answers toward describing materials that are most common, or that without which their work could not be conducted. This was added prior to conducting any of the interviews.
**Q4:** *When dealing with a damaged object,* at what point should a collections manager contact a conservator?

c) **What do you recommend if a museum is unable to hire a conservator for a damaged piece?**

Both of these phrases were added or revised to provide clarification prior to conducting any of the interviews. The first part was added to set the scenario of there already being a damaged work that needs attention, and pulling answers that addressed the level of damage at which a collections manager should seek outside help. The second part was changed from “What if a museum cannot afford to hire a conservator for a damaged piece?” in order to guide answers toward recommendations for courses of action for collections managers working on a budget.

The original version of the question seemed too vague and that it might garner answers in the realm of what might happen to a damaged object that is not immediately treated rather than answers about what would still be possible or what would be best for a collections manager to do to address the issue.

**Q6:** *Speaking to your area of material focus,* what simple stabilization or conservation techniques do you think a collections manager should be capable of, or feel comfortable performing?

a. Do you have recommendations for:

   i. Suppliers of materials

   ii. Resources for increasing knowledge of or skills in preservation, stabilization, or conservation methods

This phrase was added to the original question prior to any of the interviews in order to provide clarification that I was asking in terms of each interviewee’s area of expertise. Prior to
this addition, the question seemed too broad and allowed the possibility that it might not yield answers that spoke to actual conservation treatments.

**Q7:** Are there any stabilization techniques that you would be willing to demonstrate (after interviewing collections managers, I may have requests for specific techniques)? What should not be attempted?

a. If so, would you consider allowing me to visually record (photograph or video record) a demonstration, and do you have an area that we could use for recording?

b. Would you be okay with me publicly distributing such a demonstration?

The original version of this question contained the same information, but was reworded and lengthened for clarification. The changes to the first part of this question were made with the intention of clarifying the question when it was sent in email format; the original phrasing for the first part suggested that I might also be sending along answers from collections managers, which was not possible at the time some of the conservators were initially contacted. Parts “a” and “b” were then revised and separated into two sub-questions to ensure that I would retrieve specific yes or no permissions related to both the potential of me visually recording demos, and separately to the potential for me publicly distributing them.

**Q8:** I am considering presenting my research and findings at the annual meeting for the Colorado-Wyoming Association of Museums next spring; I would love to recruit conservators for a workshop component in which they teach a chosen stabilization technique. Is this something you might be interested in being involved in?

This was added after the first questionnaire. At the time the initial questionnaire was created, presenting at the CWAM regional conference had not been considered. After the decision was made to apply to present a session at that conference, it was decided that asking all
of the conservators right away about the potential for them to be involved in such a session would not only provide a potential structure for such a presentation, but also would provide insight into how willing the conservators would be in terms of engaging in this kind of educational outreach.

Analyzing the Effectiveness of the Questions

Although changes to the questions helped in clarification, they did not all come before the interviews were conducted. This in itself resulted in some inequality in the conversations that were had with the interviewees, and thus some inconsistency in the results that were obtained. Furthermore, questions were sometimes answered too generally and specific answers were not obtained for certain questions; this could have been improved by following up to overly general responses during the interviews, but the general nature of certain answers was sometimes not clear during whilst conducting the interviews.

There were also some questions that were not consistent throughout the interviews. One example of a question that posed some issues during the collections manager interviews was “Do you interact with or interview living artists about their work?” The first issue is that this was added after the first interview was already completed. The question was later posed to that collections manager in an email so an answer was obtained, but the inconsistency in format may have had an influence on the way it was answered. Additionally, this question was not posed to Arleyn during the interview due to the nature of the collection she works in. However, it was later realized that a response in any direction would have been more appropriate and would have provided an avenue for comparison rather than no response. She was posed the question in an email after the interview, but no response was received. One final concern with this question was the phrasing itself. The answer given by collections manager Lindsey Vogel-Teeter demonstrated
confusion in what capacities it was meant that collections managers might be interacting with living artists; however, her response did still provide insight, and a follow up during the interview provided clarification. The misunderstanding could also be tied to the type of collection Lindsey works in – art museums are more likely to conduct interviews with artists about their work in order to gain insight into current and future care (both Britt and Stefani noted this as a practice that either happens regularly, or one that they recognized as needing to happen more often) while this is not typically part of the scope of managing anthropological or archaeological collections.

There was also one question that was part of the collections managers’ questionnaire that ended up not being useful: “What is your museum’s operating budget?” This was originally designed to compare the operating budgets of each institution with their budgets for conservation work or their access to professional conservators. The idea was that institutions which operate on a larger budget would be better able to afford conservators on staff (such as the Denver Art Museum has) or to contract professional conservation work. The majority of the collections managers who were asked this question, however, did not know the answer. Some research into the operating budgets of the concerned institutions was attempted, but information was difficult to find or reporting was inconsistent and thus this question was ultimately abandoned in terms of analysis. A better question may have been “What is the total number of objects in your collection?” This could have allowed comparisons to be drawn between the size of collections, conservation concerns, and frequency of/ability to fund conservation projects.

Finally, there were then a few additional areas that were not touched on during the interviews with conservators that would have provided interesting insights as well as material to compare back to the literature. First, conservators were not asked whether they consider why and
for whom a treatment is being done or if they set anticipated outcomes for a treatment prior to deciding upon an approach. The Introduction discusses the importance of recognizing that conservation treatments must take into account the effects they will have on current stakeholders, as well as the potential effects they will have on future stakeholders (stakeholders can include anyone from the artist of a work, to an originating community, to the visiting public, researchers, and so on). Asking working conservators about how the ‘why’ and ‘for whom’ affects their approach to conservation could have provided insight into current ethical considerations in the field. Answers to this question also would have provided a method for reflecting on the stances of conservation and collections care academics such as Salvador Muñoz Viñas, Rebecca A. Buck and Jean Allman Gilmore, Glenn Wharton, and Frank Matero in terms of whose voices are taken into account when approaching conservation, whether an objects’ cultural significance is considered, as well as what treatments are deemed appropriate in which circumstances.

The second question that could have been posed to conservators is about how they have seen the fields change over the course of their careers. Judy Greenfield mentioned this in her interview without prompting when she mentioned there being different expectations nowadays for getting into conservation programs. Jennifer Parson also touched on this when describing her own conservation training. Because there was variation in the answers given by conservators regarding their educational backgrounds, having asked about the climate of the field when they each entered it could have offered a method for determining if the differences in their answers is due to changes in the field over time.

If this interview process were to be conducted again, questions addressing the above two issues should be added, and rigorous revisions of questions should be conducted prior to all interviews. Questions should not be revised during the interviewing process, and all questions
should be asked to all interviewees, regardless of their particular area of focus, in order to ensure standardized results.

**Conclusion**

The results of the interviews show that there is willingness for collaboration between these two fields, although there are still some obstacles to overcome. The first is the fact that information is spread out among so many different resources and platforms, and having the different organizations designated for the different classifications of collections care professionals (for example, AIC) further separates the collections care fields. Having this separation is important in terms of having resources specific to the different fields as well as for having a recognized platform for designating professional achievements. AIC in particular bestows professional titles upon conservators who submit qualifying applications, a designation which allows clients wishing to hire conservators to be sure they are hiring experienced professionals and which consequently makes AIC a reliable resource for conservation information. But there is a need for connecting non-conservator collections care professionals with these types of resources.

Similarly, there are many websites or organizations that offer online tutorials and that are growing in popularity – Paulette noted that the Smithsonian is putting out more and more vlogs demonstrating different collections care techniques, and Nancy suggested the Sustainable Heritage Network (SHN) which also puts out online tutorials. Despite the availability of online content, collections managers did not mention using either of these two resources. The SHN is a great example of what is needed for the collections care field; the collaborative provides “comprehensive workshops, online tutorials, and web resources dedicated to the lifecycle of
digital stewardship.” It is free to subscribe, and offers video tutorials on caring for different categories of objects, such as: Photographs and Images, Film and Video, Audio Recordings, Artifacts and Objects, as well as Books and Documents, and also has information on general processing related to digitization and language documentation for preserving oral histories. SHN also hosts workshops, as well as offers what they call “workbenches” through their community partners where visitors to the website can browse the different institutions and the different services or resources that they each offer. SHN’s primary focus, however, is to “preserve, share, and manage cultural heritage and knowledge,” of Indigenous peoples and thus represents only a particular area of collections care. Still, the platform is a great example of how to provide access to many different resources for free, and can be used as a reference for addressing the issue of how to connect collections care professionals with multiple types of preservation resources. Something similar could be created for the broader category of collections care professionals but might include additional information regarding how to do conservation on a budget, where to purchase preservation supplies, and which other resources can be trusted.

Another obstacle in connecting non-conservator collections care professionals with conservation resources is finding the time and funding to put towards professional development, an issue that particularly affects small museums. Smaller museums often have less staff performing the same amount of tasks, as well as smaller budgets that might be put toward professional development. Thus, something like the SHN which provides collections care resources for free, and offers visuals and information about how to do certain preservation techniques and who to connect with for related consultations or other services is a great example of an effective method for providing professionals with resources and skill building opportunities.

without requiring them to physically travel or to pay for that access. The Northeast Document Conservation Center (which was mentioned by just one collections manager, but two conservators) is another example of a collections care network with many free resources such as preservation leaflets, lists of granting agencies and opportunities, and grant writing tips available online (they also provide paid services such as trainings, assessments and consultations). It is specific to documents and works on paper, however. There are more similar resources out there including the Minnesota Historical Society, Conservation Online (CoOL) and PACCIN which pull together collections information and provide different levels of access free of charge, but overall these don’t seem to be being utilized by the full range of collections care professionals. The big question is why.

Part of it may be tied to the issue of there being so many different options, and little guidance on which to trust. This thesis originated from a perception that there are gaps between the different collections care fields, and that there may be a way to bridge those gaps. Through research and interviews with working professionals, a better understanding of where the gaps are, whether those gaps can be filled, and which method would be most effective for doing so was achieved. It is clear that more resources are needed for connecting collections managers to conservation and preservation resources, and a guidebook or a website containing much of the information discussed here would be useful for those who face more difficulty in attending conferences or affording contracted conservation work or in-person trainings. However, another avenue that should be considered is designing sessions and workshops to be presented at smaller or regional conferences, effectively reaching out to those smaller, less connected institutions and physically bringing these resources to them.
In an effort to gauge the effectiveness of this approach as well as the interest from the surrounding community, a colleague, Emma Noffsinger, and I presented a session discussing some of these topics at the 2018 conference for the Colorado-Wyoming Association of Museums. The presentation focused on educating attendees on basic conservation methods for collections managers; specifically, cleaning and storage methods were recommended and explained for textiles, 3D objects, and works on paper. Resources regarding archival materials and cheap alternatives, lists of vendors and trustworthy organizations or websites, and terminology related to assessing damage were provided to attendees, as were toolkits including a variety of labeled samples of archival materials for collections storage. The intention was to teach a few basic care methods that straddle the line between preventative care and treatment, which were recommended by conservators as being acceptable for collections managers to carry out (see Appendix H for the session description and copies of selected handouts). It was decided that the annual CWAM meeting would be appropriate for this project as it is small, regional conference which is designed for small museums that operate on smaller budgets.

Although many people attended the session and there was a great deal of positive feedback, no tool was designed for retrieving a consistent assessment of the effectiveness and reception of the topic. Nevertheless, the goal is to attempt this again in the near future, and to design assessment surveys for the second iteration. Additionally, although the responses from the conservators that were interviewed during this thesis showed an overwhelmingly positive reaction to being asked if they would be interested in participating in this type of session, the turnaround was too quick to involve them. Thus, a collaborative session or workshop may be another goal for the next version of this presentation.
Because the collections care field encompasses so many different types of professionals and many different topics, it is ever-changing and new techniques are constantly developing that improve the preservation and care of museum objects. There are resources that exist that provide the information but lack the connectivity needed to impact collections care routines at a broad scale. The individuals interviewed for this thesis have indicated that they are ready to help bridge that gap, but more needs to be done. This thesis is only the beginning in assessing the needs that exist among collections care professionals. The next step involves determining the most effective means for distributing the research gathered here, whether that be through the implementation of additional outreach, the creation of a guidebook, or the construction of a website designed with conservators and collections managers, with the end goal of increasing collaboration between collections care fields.

Kate declined, but this was due to her busy schedule rather than lack of interest in participating.
**Bibliography**


APPENDIX A: IRB Protocol

TITLE: Master’s Thesis: Care and Preservation of Art Collections

PROTOCOL VERSION DATE: September 13, 2017
VERSION: 1

PRINCIPAL INVESTIGATOR (PI):

Name: Veronica Rascona
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KEY PERSONNEL

Name: J. Patrick Kociolek
Role in project: Advisor/Thesis Committee Chair

Name: Maggie Mazzullo
Role in project: Thesis Committee Member

Name: Laura Elliff Cruz
Role in project: Thesis Committee Member
*Note: Laura Elliff Cruz is the collections manager at the Denver Art Museum; she is not a faculty member at the University of Colorado Boulder and is thus not listed on my eRA. She is serving as my third committee member and will review my material along with the other two committee members listed above.

I. OBJECTIVES

This thesis will briefly examine the history of art conservation and collections management and the direction the two fields are currently taking, with respect to changing art practices. Through the examination of past practices in these fields, I seek to highlight tensions, describing where conservation and collections management do not and should not coincide. In doing so, I intend also to illuminate overlaps and outline when and how collections managers could be taking on minor conservation roles in order to provide better care for and access to their collections. This thesis will focus on the care of art and ethnographic objects specifically, and will make an
argument for the need for more specialized training opportunities for collections managers working in these types of collections. Through a literature review and interviews with working professionals, I will provide an analysis of traditional and contemporary materials used in the care of art and ethnographic objects, and will create a guidebook on minor conservation and stabilization techniques for collections managers. The guidebook will outline: 1) preventative care methods for especially fragile objects; 2) how-to instructions with visuals on basic stabilization methods for damaged objects; 3) lists of archival materials that can be used in stabilization processes, as well as inexpensive alternatives where appropriate; 4) and a list of conservation resources, including organizations that host workshops on conservation methods that are open to collections specialists. In pulling this information together, this thesis will serve as a tool to collections managers working in museums without immediate access to conservators.

II. BACKGROUND AND SIGNIFICANCE

The idea for this thesis arose from thesis consultations with the Anthropology Collections Manager at the University of Colorado Museum of Natural History (CUMNH), Christina M. Cain. The CUMNH does not have a conservator on staff, and Ms. Cain suggested that how-to instructions detailing basic stabilization techniques for objects in art and ethnographic collections would fill a need not only at the CUMNH, but might be equally useful for collections managers at other similarly sized museums. The idea was subsequently proposed to two other collections managers at museums without conservation staff (Pueblo Grande Museum and Archaeological Park in Phoenix, Arizona and the University of Colorado Art Museum in Boulder, Colorado) who agreed that such a guide would be valuable to have in their collections. Below are responses from each of the collections managers I consulted – they support the idea that a guide on stabilization techniques would be useful at their museum, as well as highlighted a need for additional training before they could feel comfortable caring for damaged objects in their collections. Specific interest was expressed in the creation of how-to instructions with a visual component on methods for stabilization of damaged objects, and minor conservation procedures.

Christina Cain, Anthropology Collections Manager at the University of Colorado Museum of Natural History:

“My opinion as a former collections manager of two art museums and from my current seat is that […] learning basic conservation techniques is extremely valuable and not something a lot of us know, but something that would save many collections that are underfunded for conservation.”

Lindsey Vogel-Teeter, Curator at Pueblo Grande Museum and Archaeological Park in Phoenix, Arizona:

“I’m very hesitant to do any kind of conservation, even the smallest kind […] it is hard to find the how-to instructions.”

Maggie Mazzullo, Collections Manager and Registrar at the University of Colorado Art Museum in Boulder, Colorado:

“We don’t do any proactive repairs ourselves but something that discusses how to manage the damage would be useful. How to keep things from further damage, say a painting is cracking and flacking, [do we] Lay it flat? Wrap it? Keep the bits? How
The guidebook component of this thesis will be the most useful in terms of providing a resource to the museum community, and the interview process will be critical to this aspect of the project. Information gathered such as demos on stabilization techniques, information on what types of training are desired and needed by collections specialists, and recommended materials for use in object care cannot be gathered without direct consultation with professionals. The interviews will thus not only allow me to obtain specific and accurate information on stabilization techniques and practices in the fields of conservation and collections management, but will most importantly ensure that the information I obtain is current, and therefore relevant.

III. PRELIMINARY STUDIES

➢ None.

IV. RESEARCH STUDY DESIGN

Participants were chosen based on my network of professionals in the field, and from suggestions given by colleagues in museum collections management. Thus, potential interviewees are concentrated in the American southwest, specifically Colorado and Arizona.

Questions are designed to answer how collections managers working in art and ethnographic collections at museums without conservation staff currently care for, or deal with damaged objects in their collections. I plan to contact seven conservators and six collections specialists (thirteen people total) via email for interview requests. Interviews will be conducted in person whenever possible, or via phone or Skype when this is not possible. Interviews will be recorded using a digital voice recorder, and relevant information gathered from the interviews will be transcribed by myself, and will be retained to be included in my paper.

I expect to conduct interviews beginning in the fall 2017 and possibly into the spring 2018. The project will be completed by June 2018.

V. ABOUT THE SUBJECTS

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<th>Number to be enrolled in each group</th>
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</thead>
<tbody>
<tr>
<td>Working Collections Managers</td>
<td>6</td>
</tr>
<tr>
<td>Working Art Conservators</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>13</strong></td>
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</table>

The subject pool includes collections specialists and conservators who actively work with art and ethnographic objects. The specific people on this list are women between the ages of 20-70. The only criteria used for including an individual in the subject pool was whether a person is an
actively working collections manager or conservator with a specialty in art and ethnographic objects.

It is anticipated that all of the subjects will complete the study; however, there is a buffer included in the total number of people to interview to allow for two to three people to withdraw and still allow for an acceptable volume of information.

VI. VULNERABLE POPULATIONS

➢ None

VII. RECRUITMENT METHODS

The subjects were chosen based on collections specialists I know, as well as from recommendations by other collections professionals. The subjects include professional, working collections managers employed at art and anthropology museums and art object conservation professionals in the southwest. This list has been approved by my thesis committee; I alone will contact those on the list (via email) to set up interviews, and I alone will interview the subjects.

In my initial emails to prospective participants, I will detail the purpose for the interview, and how I intend to use the information they provide. I will also attach a list of the questions I plan to ask so that the prospective participants are aware of the type of information they are being asked to provide.

<table>
<thead>
<tr>
<th>List recruitment methods/materials and attach a copy of each in eRA</th>
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<tr>
<td>1. Email script requesting participation</td>
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VIII. COMPENSATION

➢ None

IX. CONSENT PROCESS

Initial consent will be documented via email from participants in their responses to the initial email requesting their participation. Consent will then be re-affirmed during the interview (see attached questions).

X. PROCESS TO DOCUMENT CONSENT IN WRITING

Consent will be documented in the email responses gathered from prospective participants, and will be reconfirmed via digital voice recording during the in-person interviews.
XI. PROCEDURES

Participants will receive an email requesting an interview, they will then participate in an in-person interview. An additional component applies to conservators only: some form of visual recording will take place (digital images or video recording) to document the participant conducting stabilization techniques. All participants will be contacted after the interview to thank them for their participation. During the interviews, all participants will be asked whether they would like to receive a copy of the thesis once it is complete, and those who provide a yes response will be contacted once the thesis is complete in order to be provided with a copy of the completed project.

The data to be collected from interviewees consists of the answers they provide in response to the questions (see attached questions), and the visually recorded demonstrations of stabilization procedures. The interviewees will not participate in any aspect of this thesis beyond the interviews and demonstrations.

I plan to present on my work at the Colorado-Wyoming Association of Museums (CWAM) annual conference in April, 2017. The presentation will most likely include a summary of my work, as well as selected images and/or video recordings gathered from the interview process.

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</table>
Audio recording of all interviews is preferable; however, if a participant is strongly averse to audio recording, I can record the answers to interview questions via hand-written notes.

All conservators interviewed will be asked if they will consent to being photographed or visually recorded performing a, or a series of stabilization techniques. They may decline, but will be asked if they can provide any other type of visual resource or reference to visual resources. If a participant agrees to be visually recorded, I will take step-by-step photographs and/or will video record stabilization techniques to be included in the guidebook component of the thesis, or to be used in the presentation component (at the CWAM conference). Interviews are expected to take approximately 1-2 hours, but not more than 2 hours.

<table>
<thead>
<tr>
<th>Visit #</th>
<th>Procedures/Tools</th>
<th>Location</th>
<th>How much time the visit will take</th>
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<tbody>
<tr>
<td>Interaction 1</td>
<td>Request for interview is sent via email. Subsequent emails may ensue in order to set up an interview time and location.</td>
<td>Via email.</td>
<td>n/a</td>
</tr>
<tr>
<td>Interaction 2</td>
<td>In person interview is conducted. A series of standardized questions are posed to the interviewees, and all answers/ensuing discussion is recorded on an audio recorder or via note-taking. For art conservators, the interviewee provides a demonstration of a stabilization technique (or a series of techniques) which are recorded through digital photography or video recording.</td>
<td>Conducted at a location decided upon during Interaction 1.</td>
<td>1-2 hours</td>
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<tr>
<td>Interaction 3</td>
<td>Thank you note is sent to interviewee.</td>
<td>Via email or postal mail.</td>
<td>n/a</td>
</tr>
<tr>
<td>Interaction 4</td>
<td>Participants who expressed interest in receiving a copy of the...</td>
<td>Via email.</td>
<td>n/a</td>
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</tbody>
</table>
final thesis are contacted via email so as to set up a method for delivery.

XII. SPECIMEN MANAGEMENT

➢ Not applicable.

XIII. DATA MANAGEMENT

Data will be stored on my personal laptop, smartphone, digital audio recorder, digital camera, and on a password protected file storage system. All information gathered on these devices will be backed up to my laptop, and all devices will be stored at my home. I will be the only person with direct access to this information, although I will provide relevant information to my three committee members throughout the project.

All unused original audio recordings will be deleted at the end of the project; copies of unused images and videos may be saved on my personal laptop, but will be removed from all other devices at the end of the project.

XIV. WITHDRAWAL OF PARTICIPANTS

All participants are allowed to withdraw at any time, and for any reason. If a participant decides to withdraw, all information they provided will be deleted. If a participant withdraws, my advisors and I will discuss if or who to replace them with. It may not be necessary to replace someone if the information received from other interviews is sufficient. However, if more than a few participants withdraw, it may be necessary to replace them in order to maintain the same level of diversity in the participant pool.

XV. RISKS TO PARTICIPANTS

➢ None.

XVI. MANAGEMENT OF RISKS

➢ Not applicable.

XVII. POTENTIAL BENEFITS
There is no direct benefit to the subjects as a result of participating in this project. The thesis will, however, result in a guidebook that will be a useful resource to collections managers of art and ethnographic collections. Although this project does not include publication, I may seek publication after its completion, or seek another method for making sure the information I gather is available to the public. The guidebook will pull together information on preventative care methods for especially fragile objects, instructions with visuals on basic stabilization methods for damaged objects, and lists of materials used in object care, as well as of conservation resources. In pulling this information together, this thesis will serve as a unique tool for collections managers working in museums without immediate access to conservators.

XVIII. PROVISIONS TO MONITOR THE DATA FOR THE SAFETY OF PARTICIPANTS

➢ Not applicable.

XIX. PROVISIONS TO PROTECT THE PRIVACY INTERESTS OF PARTICIPANTS

All participant names, occupations and contact information is already available online. This thesis will include names and occupations, but will not include participant contact information. Additional information that will be included are the relevant answers participants provide to the questions they are posed, and images or video of stabilization techniques that participants agree to have released as part of the thesis. Thus, no impact on privacy of participants is anticipated.

XX. MEDICAL CARE AND COMPENSATION FOR INJURY

➢ Not applicable.

XXI. COST TO PARTICIPANTS

The only cost to participants is the time they give to the interview process.

XXII. DRUG ADMINISTRATION

➢ Not applicable.

XXIII. INVESTIGATIONAL DEVICES

➢ Not applicable.

XXIV. MULTI-SITE STUDIES
Not applicable.

XXV. SHARING OF RESULTS WITH PARTICIPANTS

At the end of each interview, I will ask each participant if they would like me to send them a copy of my completed thesis. If a participant would like a copy of the completed thesis, I will contact them via email after its completion to set up a method for sending them a copy.
APPENDIX B: IRB Approval

09-Oct-2017

Dear Veronica Rascona,

On 09-Oct-2017 the IRB reviewed the following protocol:

<table>
<thead>
<tr>
<th>Type of Submission:</th>
<th>Initial Application</th>
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<tbody>
<tr>
<td>Review Category:</td>
<td>Exempt - Category 2</td>
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<tr>
<td>Title:</td>
<td>Master's Thesis: Care and Preservation of Art Collections, interviews</td>
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<tr>
<td>Investigator:</td>
<td>Rascona, Veronica</td>
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<td>Protocol #:</td>
<td>17-0487</td>
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<tr>
<td>Funding:</td>
<td>None</td>
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<tr>
<td>Documents Approved:</td>
<td>Questions lists docx, Email drafts; 17-0487 Protocol (9Oct17);</td>
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<tr>
<td>Documents Reviewed:</td>
<td>Protocol; HRP-211: FORM - Initial Application v7;</td>
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The IRB approved the protocol on 09-Oct-2017.

Click the link to find the approved documents for this protocol: Summary Page Use copies of these documents to conduct your research.

In conducting this protocol you must follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,
Douglas Grafel
IRB Admin Review Coordinator
Institutional Review Board
For collections managers:

Hello,

My name is Veronica Rascona. I am a master’s student in the Museum and Field Studies program at the University of Colorado Boulder, focusing on the care of art collections. I am working on a thesis that explores the relationship between the fields of collections management and conservation of works of art, and am looking for working professionals in these fields who are willing to be interviewed on the topic. Particularly, I am interested in surveying the perspectives of professionals regarding where the fields overlap and where they should not, materials used in your professions, and views on whether collections managers feel they could benefit from how-to instructions on basic stabilization methods for damaged objects, and if there are specific techniques that they want to learn.

I have attached a list of the types of questions I am asking, but if you would like any additional information about my project, please let me know. If you are willing to participate, I would love to set up a time to meet in person or speak over the phone for sometime this fall.

Thank you so much for your time, I look forward to hearing from you.

Sincerely,

Veronica Rascona

For conservators:

Hello,
My name is Veronica Rascona. I am a master’s student in the Museum and Field Studies program at the University of Colorado Boulder, focusing on the care of art collections. I am working on a thesis that explores the relationship between the fields of collections management and conservation of works of art, and am looking for working professionals in these fields who are willing to be interviewed on the topic. Particularly, I am interested in surveying the perspectives of professionals regarding where the fields overlap and where they should not, materials used in your professions, and views on whether there are basic techniques that conservators are willing to teach to collections managers regarding proper stabilization of damaged objects.

I have attached a list of the types of questions I am asking, but if you would like any additional information about my project, please let me know. If you are willing to participate, I would love to set up a time to meet in person or speak over the phone for sometime this fall.

Thank you so much for your time, I look forward to hearing from you.

Sincerely,

Veronica Rascona
APPENDIX D: Original Question Lists

Questionnaire for Collections Managers:

1. Could you tell me about your background and training (please include your official job title, and how long you have been working in collections)?

2. What types of materials do you care for?

3. What are the most sensitive materials in your collection?
   a. How do you care for them?

4. What materials do you use for storage of artwork?
   a. Where do you order your supplies from?

5. When/how do you determine when a conservator needs to be consulted for a piece?
   a. What factors do you consider when making this decision (i.e. budget, use of the object, museum mission, needs of the public, needs of other pieces in the collection)?
   b. What is your museum’s operating budget?

6. How big of an issue are damaged pieces in your collection?
   a. What are the most common types of damage?
   b. When you have a damaged piece, who or what does this affect the most (i.e. exhibitions, or access to the public/researchers)?

7. Do you actively take part in professional development?
   a. If no, why not?
   b. If yes, what sort (related to conservation and preservation of objects)?

8. What resources do you reference for object care (preservation/conservation/stabilization)?
9. What techniques would it be most useful for you to learn?

10. Is there any literature you could recommend related to this topic?

11. Do you consent to the information you have provided being used in my master’s thesis?
   a. Do you consent to the information you have provided being publicly distributed?

Questionnaire for Conservators:

1. Could you tell me about your background and training, including how long you have been working in conservation?

2. What types of objects do you focus on?

3. What materials do you use in your practice?

4. When should a collections manager contact a conservator?
   a) What if a museum cannot afford to hire a conservator for a damaged piece?

5. What simple stabilization/conservation techniques do you think a collections manager should be capable of/feel comfortable performing?
   a) Do you have recommendations for:
      i. Suppliers of materials
      ii. Resources for preservation/stabilization/conservation methods

6. What do you charge for your services?

7. Is there any literature you could recommend related to this topic?

8. Based on the answers given by collections managers – are there any stabilization techniques that you would be willing to demonstrate? What should not be attempted?
   a) If so, would you be willing to have me visually document such a demo and publicly distribute information gathered from such a demo?
9. Do you consent to the information you have provided being used in my master’s thesis?
   
a) Do you consent to the information you have provided being publicly distributed?
APPENDIX E: Revised Question Lists

Collections Managers:

1. Could you tell me about your background and training (please include how long you have been working in collections)?

2. What types of material do you care for?
   a. What is the most common material in your collection?
   b. What are the most fragile materials in your collection?

3. What preventative conservation methods do you currently engage in? (i.e. IPM, light mitigation, art handling training, etc.)
   a. Do you interact with or interview living artists about their work?

4. Have you done stabilization work before? If so, what kind?

5. What archival materials do you use in collections storage? And where do you order your supplies from?

6. How big of an issue are damaged pieces in your collection?
   a. What are the most common types of damage?
   b. When you have a damaged piece, who or what does this affect the most (i.e. exhibitions, or access to the public/researchers)?

7. When/how do you determine when a conservator needs to be consulted for a piece?
   a. What factors do you consider when making this decision (i.e. budget, use of the object, museum mission, needs of the public, needs of other pieces in the collection)?

8. What types of resources do you reference for object care?
   a. Specific to stabilization for damaged objects?
9. Do you actively take part in professional development?
   a. If no, why not?
   b. If yes, what sort (anything related to conservation and preservation of objects)?

10. What is your museum’s operating budget? And do you have funding specifically for conservation?

11. What stabilization techniques would it be most useful for you to learn?

12. Do you feel you, or other museums would benefit from a kind of guidebook on basic stabilization techniques for collections managers?
   a. Do you think something else might be more useful (i.e. trainings, workshops, videos, etc.)?

13. Is there any literature you could recommend related to this topic?

14. Do you consent to the information you have provided being used in my Master’s thesis?
   a. Do you consent to the information you have provided being publicly distributed?

Conservators:

1. Could you tell me about your background and training, including how long you have been working as a conservator?

2. What types of objects do you focus on?

3. What are some of the most common materials you use in your practice?

4. When dealing with a damaged object, at what point should a collections manager contact a conservator?
   a. What do you recommend if a museum is unable to hire a conservator for a damaged piece?

5. What do you charge for your services?
6. Speaking to your area of material focus, what simple stabilization or conservation techniques do you think a collections manager should be capable of, or feel comfortable performing?
   
a. Do you have recommendations for:
   
i. Suppliers of materials
   
ii. Resources for increasing knowledge of or skills in preservation, stabilization, or conservation methods

7. Are there any stabilization techniques that you would be willing to demonstrate (after interviewing collections managers, I may have requests for specific techniques)? What should not be attempted?
   
a. If so, would you consider allowing me to visually record (photograph or video record) a demonstration, and do you have an area that we could use for recording?
   
b. Would you be okay with me publicly distributing such a demonstration?

8. I am considering presenting my research and findings at the annual meeting for the Colorado-Wyoming Association of Museums next spring; I would love to recruit conservators for a workshop component in which they teach a chosen stabilization technique. Is this something you might be interested in being involved in?

9. Is there any literature you could recommend related to this topic?

10. Do you consent to the information you have provided being used in my Master’s thesis?
    
a. Do you consent to the information you have provided being publicly distributed?
APPENDIX F: Interview Transcriptions – Collections Managers

Date: November 1, 2017

Interview with Christina Cain, Anthropology Collections Manager, University of Colorado Museum of Natural History

Veronica: Okay, go ahead

Christie: Okay, Christina Cain, Anthropology Collections Manager, CU Museum of Natural History

Veronica: Could you tell me about your background and training and please include how long you've been working in collections?

Christie: [00:00:07] So I started out as an undergrad in Anthropology and that was where I got my first collections work in the CRM lab and then started volunteering and then working at the Art Museum on campus for, as a collections sort of assistant position. Then they didn't actually have a formal collections position – so that position was always filled by undergraduate students – which, lucky for me, I ended up in that position and so basically being the registrar for that museum and that was starting in – so my CRM experience was 1998- so 19 years almost of, uh, actually 19 years of experience in collections work and, let’s see, after Undergrad I worked at – do you want my whole, like, resume in a nutshell or?

Veronica: [00:01:11] In a nutshell, yeah.

Christie: Okay, alright, I'll just run through them. So after graduation I worked as a floor interpreter doing education stuff for Children’s Museum of Indianapolis and then also was

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1 The time stamp format is: Hours: Minutes: Seconds. Although transcriptions generated by Trint auto included time stamps, some were lost during the editing process. Additionally, because some of the transcriptions were typed by hand, time stamps for those transcriptions were only added as needed. This resulted in sporadic time stamping.

2 Cultural Resource Management
employed as a lab supervisor for an archeology dig at the Indianapolis, Indiana State Museum and they kind of overlapped. And then I got lucky and got hired as the Collections Manager for the Eiteljorg\(^3\) here and that's when I started phasing out the other two because that was a real job and, and so that was an amazing job, and then I decided somewhere in there that I didn't want to live in Indiana anymore, and I should go back go to school. So I applied for, here at CU\(^4\) for a Master’s in Museum Studies and ended up getting in and then did my internship at St. Petersburg, Florida Museum of Fine Art\(^5\) and worked here also for a couple years. And then when I got out of here I worked as the Curator of the Astor House Museum, their history park in Golden. Then I moved to the Registrar's office at the Denver Art Museum and was finally promoted into Collections Manager at the Denver Art Museum. And then I came back here to Anthropology Collections Manager.

Veronica: [00:02:33] Alright. So what types of materials do you care for now and what are some of the most common materials and some of the most fragile?

Christie: So when you say materials, do you mean the actual things that things are made from?

Veronica: [00:02:47] Yes.

Christie: Okay, so the types of material, overall, split between the archeology and ethnographic materials, uh the archaeology is going to be mostly ceramics and stone with some perishables that are made out of plant fibers or feathers, things like that. Uh, that mostly encompasses the archaeology. And then ethnographic is kind of everything. So you have everything from stone to wood to animal products – fur, feather, skin – to plant materials, glass, things like beads, plastic probably is in there as well. And then there's also – so ethnographic material tends to cover

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\(^3\) Eiteljorg Museum of American Indians and Western Art, Indianapolis, Indiana
\(^4\) University of Colorado Boulder
\(^5\) Museum of Fine Arts, St. Petersburg, Florida
everything, metals, all of it. And then we also have archival materials, so paper, books and that sort of thing. The most common material in the collection, that's a really good question. It’s probably going to be ceramics.

Veronica: [00:03:58] OK.

Christie: [00:03:59] And the most fragile… I would say, that might be, well it's kind of an interesting question because the actual base materials, the most fragile things tend to be probably things like feathers or hide sort-of things. Silk is definitely a major fragile material, but for our collection it kind of comes into play how they've been dealt with. So the pottery glued back together with Duco in the 1920s is among the most fragile things in the collection because it's so easy for it to fall apart because of its restoration, not because of its inherent situation. And then our perishable archeology, which encompasses, you know, plant and animal materials is probably, as a category, the most fragile stuff in the collections.

Veronica: [00:05:03] OK. Alright. What preventive conservation methods do you currently engage in? For example, IPM⁶, light mitigation art handling training, things like that.

Christie: [00:05:18] We do all of those. We have monthly IPM with on campus professionals that our students work with. We do have light mitigation. We have UV filters on the lights. We keep things dark, we block off windows. Uh, lights are off when we're not present. The students do go through – every, every new round of staff and students go through art handling training. Even if, even new staff that come in, do that every – so we hold one of those every year. Uh, we do environmental monitoring using the PEM2 data loggers and the Image Permanence Institute Climate Notebook. And we analyze both IPM and that data, so it's not just data collection that actually now sits there… Uh, other preventive conservation includes mount making and proper

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⁶ Integrated Pest Management
archival materials in storage so that things are handled a lot less. If things are in precarious storage situation where it's hard to access them safely, we try to mitigate accessing them at all.

Veronica: [00:06:37] So along those lines, what archival materials do you use in your storage? And could you also tell me where you order supplies from?

Christie: So we use all manner of things. A big one is heritage board, that comes from Talas. The polyethylene foam we get from different sources, probably Gaylord is the most common or University Products. Sometimes plastic suppliers have the best deals on any of the plastics, so Tyvek, foams, that kind of thing. We use a lot of backer rod, which is a polyethylene foam tubing that – well it’s not really a tube, but a solid tube – and that you can get from Grainger I think. So that's just a common, hardware supply kind-of thing that you can get more broadly and cheaper elsewhere, not at an archival supplier, although they do have that. So we do use the Tyvek a lot, we use Muslin, which we get in small orders from Joann Fabrics. From large orders, we actually get it from Hancock's of Paducah because they have really odd, large sizes of it so for bulk, huge bulk orders for textile renovation and everything we get it from there. We use Volara, which is a polyethylene foam, but it's a closed cell. We actually recently got that from, I cannot recall… a plastic supplier in Denver.

Veronica: [00:08:09] So you guys use all different places?

Christie: Yeah, so a lot, you know, most of our day-to-day archival supplies are going to come from Grainger – or, sorry, from Gaylord, but for some of these plastics and things, it's far more economical to get them from a different kind of a supplier that's not focused on archival supplies where there's a mark-up for them. But Talas, Granger, and – I keeps saying that – Talas, Gaylord and University Products are the sort-of go-to – and Hollinger – go-to archival suppliers.
**Veronica:** So how big of an issue are damaged pieces in your collection?

**Christie:** [00:08:56] It's a pretty big issue, one we can't deal with on a daily basis because of the time and expense in repairing things, but there are different categories of damage. There's the inherent vice glues that were used to repair things or refit them, so that would be the pottery. Uh, and then our, probably our biggest issue that actually causes that issue to come up is our environment. So we don't have good climate control, we have an evaporative cooler, we do not have chilled water AC, the heat is steam heat and it's not super efficient because our windows are single pane historic windows and uh, so there's a lot of transfer of heat back to the outside and that causes expansion and contraction of the things. In the summer, the evaporative cooler is extremely humid, pumps a lot of humidity into this and we go from a very, very low humidity to a medium to high humidity. And the objects aren't used to that being mostly from this area. So they're used to being in a lower humidity environment. So probably 60 percent humidity is not ideal. And that kind of cracking and aging that comes from that mechanical damage is probably our biggest issue, and that also would play into, say, pottery glue failing, that has a lot to do with the environment not being stable. That, that then also plays into our pest issues because the building isn't sealed up tight, it means we get a lot of pests invading and because the environment can be too warm in the summer, too humid in the summer, it’s an ideal environment for pests.

**Veronica:** [00:11:00] Do you get a lot of damage from pests or just a lot of pests that you've seen in the collection so far?

**Christie:** No – yeah, so far we haven't seen a lot of damage from the pests that I think that's, that's definitely a credit to our IPM program and keeping an eye on what's going on where and the fact that we have a lot of projects in the collection where we see the collections a lot. So any
potential pest issue might get nipped in the bud before it becomes a bigger problem or a lot of damage.

Veronica: [00:11:34] We sort of talked about most common types of damage. Do you have anything else to add to that?

Christie: [00:11:42] I think, well, one thing we can't ignore is water damage from actual leaks and water invasion of spaces. So the evaporative coolers had two major malfunctions that caused leaking, one of which damaged objects. Uh, so thinking about what's going to be the biggest risk to the collection, water is definitely the biggest risk.

Veronica: [00:12:08] And when you have a damaged piece, what or who does this affect the most? So for example, use in exhibits, use in research, access from the public or students.

Christie: Honestly, I think given what has been damaged, none of the things that had been damaged say in, uh, in the water incidents have been actively-researched higher-quality collections. So the biggest impact was actually on collections staff time more than anything else, and, uh, space and logistics and having to deal with insurance and conservators and all that kind of thing. So actually staff time has been the biggest impacted thing.

Veronica: [00:13:06] Okay. When and how do you determine when a conservator needs to be consulted for a piece, and what factors do you consider when making that decision?

Christie: So usually when we've contacted a conservator for recent damage or some sort of impact damage, it's been as a part of we're getting insurance to cover that, so we're going to fix it now we have the funds, we have the time to deal with that. So when we contact a conservator it’s been sort of more of an emergency issue. We've also contacted conservator and done a conservation program just around old damage, things that – stabilizing textiles is our main
conservation program where we do sort of more proactive conservation. That, it is repairing old damage, but it's old, old damage and this isn't about an emergency situation, it's about just doing proper preservation and care of the collections. So, we consult a conservator when we're ready to do it, it's sort of at our leisure and otherwise we consult a conservator when an emergency has happened and we need somebody to fix something pretty quickly – get water off of something, repair something and that sort of thing. Budget is definitely a part of that. Both of those examples come from different types of budgeting. So insurance pays what it pays, minus a deductible, and so that money should be available to us in the case of an emergency. And, and then the budget for just general conservation is – we have a budget for that, we have an endowment that covers care and acquisition of collections and that falls within that budget. Uh, let's see… Use of the object would come into play if, for example, someone wants to borrow something for an exhibit and it needs to be stabilized before it can travel. Conservation costs come into play if that borrowing institution is willing to pay for them. So if they say’ we want this piece and they, and we're going to conserve it’ so that they can take it and it's safe to be on exhibit, then they would cover the costs of, of that. That is fairly rare. And, although we have loaned textiles to the Denver Art Museum where they went ahead and paid for them to be cleaned properly and, and mounted as well. So a lot of times it's just situational. Definitely things like the needs of researchers and the public and exhibition and the museum's mission come into play because we don't, we're not putting our conservation resources toward things from Africa for example, because they just aren't our main mission, they’re not our main collecting scope, it's not the kind of thing that we generally exhibit, our scope being mostly North American Indian means that those are the things that are going to get the attention first. So we absolutely do prioritize. And then even within textiles we prioritize based on the condition of the piece and also the
importance of the piece. So the most famous pieces that were in the worst condition go first, that’s how we would prioritize them.

**Veronica:** [00:16:50] What types of resources do you reference for object care, and is there anything specific to stabilization for damaged objects?

**Christie:** Our, our online communities, there are a lot of just resources through listservs, of, ‘I have this issue who has dealt with this?’ There are also a number of books on mount making and, I'm trying to think of anything very specific, certainly there are really basic care guidelines in the, both Canadian Conservation Institute Notes, the CCI Notes, and the National Park Service’s Conserve O’ Gram, that gets real basic stuff taken care of, how to build a box for example, but really I would say the main thing for damage, stabilizing things is contacting, I will often just go straight to my conservator colleagues and ask them what should we do in this situation? What do they recommend? And then any other networks, so either those listservs, or collections management groups that we’re a part of, or other colleagues. So networking is really a huge part of, because it's not the kind of thing generally where a book is going to tell you ‘your pot was built with Duco and now fell apart, here's what you do,’ because it's so situational. So there's, there's not a real obvious, necessarily, of one book to cover all. There are definitely books on care of glass, care of photo negatives, care of – so you put together that whole packet of resources and keep that and we, I do keep a lot of those things and we contribute to them from different conferences we go to as far as, we have our own resources, sort-of digital library going. But, I would say starting with the experts in that area for something that just became damaged is what I would do.

**Veronica:** [00:18:53] Do you actively take part in professional development?

**Christie:** Yes.
Veronica: If yes, what sort of professional development?

Christie: [00:19:02] So, I do, I guess from the bottom up I get involved with the collections management group here on campus. It's a network of every – somebody represents every collection on campus – to the regional collections management group, which is all up and down the front range, collection specialists, to our state organization, which happens—so those, those first two don't have conferences, but the state organization, Colorado-Wyoming Association of Museums, has a conference and I do attend that yearly. And then there's broader than that Mountain Plains Museum Association – I attend that on occasion. And then the other conference I attend more often is the Association of Tribal Archives, Libraries and Museums. And the national NAGPRA meetings, so those tend to be the main ones that I attend. Separate from conferences I'm a part of the Colorado Cultural and Historic Resources Task Force which focuses on emergency management and recovery of cultural resources, whatever that might mean, including historic sites, archeological sites, museum collections, archives, libraries, etc. And we just provide resources to those and are continuing to try to get more formalization as a group on the State Emergency Operation Center when there is an issue. I think that covers what I been up to lately.

Veronica: [00:20:42] Alright. What is your museums operating budget and, I think you said you do have funding specifically for conservation?

Christie: [00:20:50] I don't know what the museum's operating budget is, I assume you can find that out since you work for the director. But for the section our, we do have a fund specifically, it's not just for conservation, it's an endowment called the Joe Ben Wheat Textile Fund, or something like that. And, but the language is fairly open, meaning it was started for the care of textiles, but it can be expanded and it does include all the anthropology collections and it isn't
specifically for – it can be used for acquisition, it can be used for care and it's not one of those super restrictive uh, not like a deaccession fund where monies from deaccessions goes where you can't, or, historically AAM\textsuperscript{7} code of ethics kind of discouraged or strongly discouraged paying staff out of those funds and now they've loosened that up a bit, but this doesn't have that kind of restriction either, but it needs to be for the care of, or acquisition of, and it's anthropology focused. So that exists, that money continually, each year new funds go into that either from other private donors but mostly from the Toh-Atin Gallery’s annual textile auction that they do, which is how the fund actually started years, 32 years ago. So that's where that money comes from. Did you need to know anything else about funding for – we also have a curatorial budget each year which is fairly small, to care for and buy, but it covers, it’s not just for collections, it covers pens and pencils for, you know, staff to use and parts of computers and our database-

Veronica: [00:22:44] Like operating..? 

Christie: It's like operating, so it’s a section operating budget and depending on what you're looking at there – so that our total operating budget includes salaries, includes travel, but then there's just an, sort of a supply budget in there that's smaller, that's about $5,000 a year. But again that's not specifically for collections, although some of it gets used for it.

Veronica: Just some of it, or most -? 

Christie: Just some of it because, uh, just office operating for example, more than half of that budget each year goes to support for our database.

Veronica: Okay

Christie: [00:23:27] So pretty much, yeah, we lose over $3,000 to that every year.

\textsuperscript{7} American Alliance of Museums
Veronica: Wow. Okay, so what sort of stabilization techniques would it be most useful for you to learn?

Christie: [00:23:42] In this collection I would say definitely whatever it takes to stabilize pots that have these old glues in them, it may not be reconstruction thereof because a lot of archeologists would say don't do that, but knowing what to do so that either they don't fall apart, or we take them apart appropriately rather than letting them fall apart would be huge for this collection. And then also one of the things we come across the most is just loose beads on things, so bead stabilization, quillwork stabilization, and then textile – definitely stabilizing the fibers of the yarns in the textiles to keep them from unraveling would be some really good, useful things.

Veronica: Could you just – do you remember the name of the old glue that is used?

Christie: Duco, D-U-C-O, and it's cellulose nitrate, which means it's highly combustible.

Veronica: [00:24:46] My next question, do you feel you are other museums would benefit from a kind of guidebook on basic stabilization techniques for collections managers?

Christie: I think so.

Veronica: Do you think something other than a guide book would be more useful?

Christie: [00:25:00] I think trainings would be more useful. I think in-person workshops that are low cost because obviously museums don't have a lot of money, would be very helpful and are outside of conferences because again, a lot of staff can't necessarily go to a whole conference, but a workshop that's a one day or half day or something just to learn how to do a certain stabilizing technique would be very useful. A guide book is nice, if it comes with templates on how to build a box, but if it's something like ‘here's how to stabilize a bead,’ unless you do that physically, I'm not sure, you know, you can show that in words and pictures, I think that can be
challenging. Some things that work well for building certain mounts, how role a textile things like that. But how to stabilize a bead, how to clean hide, how to stabilize a seam because you're going to sew it and you're going to poke a needle through leather, is probably something that needs to be taught by a professional and in person. So there, I would say there are probably incrementally more challenging techniques before you get to the point where it's just call a conservator this is too, too inappropriate for a collection staff to do, that could go from ‘build a box on’ a piece of paper to, a workshop is nice to see how to clean or stabilize or stitch something, to don't even go there because this is for conservators only.

**Veronica:** Is there any literature you recommend related to this topic?

**Christie:** [00:26:50] There are certainly, I think at the, American Institute, I think it's American Institute for Conservation – they actually have a, sort of a Wiki, I believe, page that people can access. I think that they will – so I heard about this from a conservator so I haven't visited it myself, but I think that they actually do potentially upload of videos or questions or conversations that could happen that might be an excellent resource and probably the first place to go. It would be interesting to see, first of all what they have already, and secondly what they might be able to have or provide or collaborate with things that, with communities that are more collections management oriented. Because I, I doubt, just based on personal experience, that a lot of collections managers think ‘I should go to the conservators websites to look at this stuff because they'll just provide this information,’ you know, it seems like no, that's what conservators do as a business, they're not necessarily going to share with everyone how to do everything. But I think that may not be the case, and that’s, but if collections colleagues are not going to those sites and getting information from there, then that needs to be either advertised better or maybe a new forum or a more collaborative platform would be helpful. And then there
are all kinds of mount-making books, Caring for American Indian Objects – the Ogden book\(^8\) – includes certain chapters that might get in more into the nitty gritty of how to actually care for something and how you handle it, how you might do some of these treatments. But there is a, there is a fine line somewhere in there between ‘this is something that collections managers should be doing’ and ‘this is something that, you just, conservators have that knowledge, they have their body of resources and it's best to leave it to them.’ But I think there's a place somewhere in there for more, more resources for collections managers who just need to make sure that this doesn't fall apart right now.

**Veronica**: [00:29:22] OK. And finally, do you consent to the information you've provided being used in my master's thesis?

**Christie**: Yep.

**Veronica**: And, uh, do you consent to the information you have provided potentially being publicly distributed?

**Christie**: In what way?

**Veronica**: [00:29:42] If I were to create a guidebook or some type of video to distribute to collections managers that is informed by this interview.

**Christie**: Sure

**Veronica**: Okay. Alright. I think that's it.

Email follow-up, March, 2018:

**Veronica**: In terms of determining methods for preservation or considering future conservation concerns, do you interact with or interview living artists about their work at all?

\(^8\) *Caring for American Indian Objects: A Practical and Cultural Guide*, by Sherelyn Ogden
Christie: We haven’t done that here, as the objects from living artists are in pretty good shape. If, however, we did need to conserve something and the artist was living, it would depend on what the conservation treatment was as to if we would contact them. For just cleaning or a small repair, probably not. If we were going to replace feathers or do some major repairs like that, we would definitely contact them. Even if we were to need to do freezing for pest mitigation on sacred objects or human remains or anything NAGPRA, we would consult some tribes if it could be determined which ones.

Veronica: Have you done stabilization work before, and if so, what kind? I believe you said you have done some stuff with cleaning leather and maybe bead stabilization, but I want to make sure that’s correct and see if there was anything else to add to that?

Christie: I’ve tied off beads mostly. Most of those have been on moccasins. I haven’t yet done anything with the leather, but I would have been referring to when the conservators at NMAI showed us how to stabilize tearing seams. The only other treatments really would be cleaning. I’ve cleaned baskets, pots, beadwork, textiles, etc. I think that mostly covers it.

Date: November 15, 2017

Interview with Britt Scholnick, Assistant Collections Manager and Registrar at the University of Colorado Art Museum

Veronica: Could you please state your name and job title?

Britt: Britt Scholnick, Associate Collections Manager and Registrar at the CU Art Museum.

Veronica: And could you tell me about your background and training? Please include how long you’ve been working in collections.
Britt: [00:00:13] So, I have been in collections now for... I graduated in 2012, so five years? But I did a couple years as a student. So my background was that I never thought I was going to work in a museum, it didn’t occur to me as a job that people did. So I was getting my Master’s in Classics, and I had a professor who thought that I might really enjoy museums when I told her that I did not know if I wanted to get my PhD and become a professor, which is what I had always thought I was going to do, and coincidentally, at the same time, they – here at CU Art Museum – received, so this was in 2011, received a bequest from the Hazel Barnes family, and – or, just her – and it was all classical material, so they needed help researching it and housing it and cataloging it, so I was brought on and I fell in love with museums and I added a year to get my professional certificate from the Museum Field Studies program here. And I, you know, did contract positions – well I worked here as a student, and then I worked here as a contract after I graduated and I also did contract at History Colorado, I had a paid internship at DAM⁹, and I did some work in the Anthropology Collection at the Denver Museum of Nature and Science. And then this job opened back up, and Maggie¹⁰ brought me back.

Veronica: [00:02:05] Okay, what types of material do you care for? And then what is the most common material in your collection, and what are the most fragile materials?

Britt: [00:02:14] So being a somewhat global collection, we have a lot of varied materials, we have everything from ceramics that have, you know, date to the Neolithic period, all the way to paintings and mixed media that contemporary artists are making. I would say that the most common material in our collection is easily works on paper. That is probably – we have a little

⁹ Denver Art Museum
¹⁰ Maggie Mazzullo is the Collection Manager and Registrar at the University of Colorado Art Museum (Boulder, Colorado).
over 8,600 objects in our permanent collection, and I want to say, like, 80 percent of them are works on paper, it’s a lot.

The fragile materials, well, by nature, ceramics are very fragile if you drop them. Actually they’re fairly stable if, you know, if they’re in the right conditions they’re actually fairly stable, like the Neolithic pots are, I mean, yeah. Uh, and I would say ivory is probably the most fragile material. We do have a few mixed media type pieces that I have concerns about long-term because, like they don’t – the materials don’t necessarily love each other and want to be together forever. But overall I would say most of the materials that we care for, like the works on paper and stuff, I mean, we’re always doing, uh, little projects to try to make them better, like right in the other room, you have somebody who’s going through the issue on the works on paper side, but I mean, they’re – they’re fairly stable and easy to care for, for the most part.

**Veronica:** [00:03:57] So ivory, is it, that, it’s like sensitive to environmental –

**Britt:** Yes –

**Veronica:** Okay

**Britt:** [00:04:02] Yes, and you can actually, uh, we ha – we brought in a couple pieces, you’ve seen them actually – the boat and the basket – those were brought in in 2013, I believe? And we have a, it’s not like a full on conservator’s condition report, but we do know about the condition based off of when it was originally given to the University of Colorado, Colorado Springs, uh, and there are several issues due to how they were stored – temperature, humidity fluctuations type of things – that were not originally on the report that the appraiser did. So, so we do know that, uh, this, the condition we got them in is unfortunate just because of temperature and
humidity swings caused it to swell, caused it to, uh, fracture in areas, so, yeah ivory is kind of, I mean, but it’s animal so, there you go.

**Veronica**: Yeah

**Britt**: Not unexpected.

**Veronica**: [00:05:06] What preventative conservation methods do you currently engage in, such as IPM, light mitigation, art handling training, etc.?

**Britt**: [00:05:13] So IPM and weekly HVAC monitoring. We do art handling training if anybody will be handling them, like, you know, outside of the four people in our, in our museum whose job that is. Light mitigation – do you mean like cleaning?

**Veronica**: [00:05:37] Like keeping things off display, or –

**Britt**: Yes

**Veronica**: keeping lights off in collections?

**Britt**: [00:05:44] Yes, so we do, like there are some things that have honestly been on display for years that we’re not worried about like the coins, so, not really necessary to worry about, like, rotating them off, and ceramics are also usually pretty stable. So for us, it’s really just the works on paper and photographs that we have to, you know, really try to focus on how long they’re on display, how long do we let them quote, ‘rest,’ because it’s not like they get better. But we do battle a little bit with the fact that, like, access, being part of our mission, being part of the university, it’s hard to say ‘no you can’t work with this object, because the last semester’s class worked with this object.’ So, as long as they’re stable, you know, and, you know, Maggie and I are always kind of monitoring, like how long has this – like, so we have a, an exhibition that is photographs, and it opened in the museum in 2011 and it started traveling in 2012, and we were,
we’re committed to, like, doing it all the way through I think it’s 2020, but being that they’re photographs, like, you know, we’ve had to have conversations where, you know, we explain ‘if you do this now, and you run this show for 8 years, this means that it is going to have to go away and it won’t be able to be used for – I mean really it should be like 30 – but…’ I mean, but it’s just one of those things where, like, it’s such a timely subject now, that we’re trying to get it out now, knowing we will have to suffer the, quote, ‘suffer the consequences’ later of not being able to use that material, and that’s okay. So it’s just knowing what you’re willing to say no to down the line, if you say yes to something now.

**Veronica:** [00:07:39] So do you interact with, or interview living artists about their work? Is that something –

**Britt:** [00:07:47] We should! It is definitely something that we strive to do… No, it does not happen as regularly as we would like. I would say that, if we reach out to 10 artists we hear back from 4, like…

**Veronica:** [00:08:06] Okay, so part of it is them?

**Britt:** [00:08:09] Part of it is an accessibility issue.

**Veronica:** [00:08:11] Uh huh

**Britt:** [00:08:11] Part of it is, like, it’s best practices for sure, but like, say we get in digital media of a living artist – that is number one the first thing we should be doing, is reaching out to the artist or their studio and getting all the information out of that work, about the work, but to-date I don’t think that it’s happened as regularly as we would like.

**Veronica:** [00:08:36] Kay
Britt: [00:08:37] So, but you know some cases it’s really easy, like I’m working with a living artist right now, again so – we’re getting all the information, cause like she’s, well she was physically here in the space so a lot easier to get a hold of you –

Veronica: Yeah

Britt: when you’re, you know, here.

Veronica: [00:08:53] And is that with somebody whose work is in the collection?

Britt: [00:08:57] So it’s going to be, it’s our artist in residence – so in the spring we’ll be actually showing some of her older work in conjunction with some of her newer work, and as part of her contract she will be giving us a piece.

Veronica: Okay

Britt: So it, she will be in our collection.

Veronica: [00:09:13] Yeah, cool. Okay, have you done stabilization work before, and if so what kind?

Britt: [00:09:19], if by stabilization you mean cleaning, yes.

Veronica: [00:09:25] Sure

Britt: [00:09:26] Honestly, I don’t feel like I have the skill set to do any kind of repairs or, like we have things in our collection that, old collectors, like, they would adh – they would use, like, just, like, regular adhesive labels for, like, their numbering, and they would put them on objects and, like, do I really want to take them off? Yes, yes I do. But do I think I should? No. So I, I really don’t do anything that I think would be even remotely invasive.

Veronica: Mhmm
Britt: [00:10:01] I mean like, we’ve had pieces that – not here at this institution, but I’ve had pieces that were, like, IPM issues, and like, so I’ve done some stuff with, like, that, but I mean honestly that’s just cleaning and tracking for the most part. So…

Veronica: [00:10:17] What type of cleaning, like, what is involved in that?

Britt: [00:10:20], vacuuming.

Veronica: [00:10:22] Okay

Britt: Lots of vacuuming. Yeah.

Veronica: [00:10:29] What archival materials do you use in collections storage, and where do you order your supplies from?

Britt: [00:10:34] So we actually don’t use a ton of different supplies – we use archival Blue Board, Heritage Board, we use, uh, Ethafoam, Holytex, Tyvek. For some pieces, we will use Glassine, Glassine is not actually archival, so it is something that also, when you use glassine to house, like a pastel or something, cause that does make more sense than using the Holytex – you have to note that because it will need to be addressed, like a few years down the road. It has to be rotated, it’s not like Holytex that can just live forever. Forever. I’m trying to think… I mean for numbering we use B72 and, you know, acetate…. I’m trying to think if there’s really anything else. I mean really, that’s the core of what we do for all of our objects here. I want to say that if you, like, unique pieces, I think we have like a piece or two of silver that are kept in silver bags.

Veronica: [00:11:41] Okay

Britt: [00:11:42], and we use muslin I guess would be the only other thing, only other material. And we get the vast majority of our supplies from Gaylord Archival.

Veronica: [00:11:55] Okay
**Britt**: [00:11:57] Occasionally there’s stuff that we need to order from somewhere else, but by and large it’s Gaylord.

**Veronica**: [00:12:04] Okay. How big of an issue are damaged pieces in your collection?

**Britt**: [00:12:11] We’re pretty lucky actually, uh, not a ton. Most of the damaged pieces in our collection are, like, tears, acid burn from previous storage. It’s amazing to me how many people will spend like thousands of dollars on a work and then, like, put it in a crappy mat and bad framing, cause like, I’m like why?

**Veronica**: [00:12:37] Yeah

**Britt**: [00:12:38] So when they come in, Maggie’s really good about being like ‘and the mat needs to go, we’re going to put it in our, like, new archival mat,’ it’s actually what the lady is doing in the next room right now, the conservator there. So I’m trying to think of other collections that I know – so we do have some neon works in our collection – I don’t know that they’re necessarily damaged, or, like, I guess damaged is technically when the bulb stops, starts, stops working, but like we know nothing about neon, and finding a neon conservator is, like, very difficult, so those are the pieces off the top of my head that I’m like I, I don’t even know how we’ll, I mean we’ll eventually have to fix them because they’re important pieces, but it’s uh… And we do keep, like, a running list of works that do, we do want to have repaired. A lot of times it’s just, you know, cleaning and stabilization. There was a piece that Maggie actually just had conserved that, I want to say it had a hole in it.

**Veronica**: Okay

**Britt**: But that kind of stuff is really, uh, not very common in our collection

**Veronica**: [00:13:54] Okay
Britt: So, yay!

Veronica: [00:13:56] So the most common types of damage you said are like tears or acid burn then?

Britt: [00:14:00] Yeah, it’s really like the works on paper, creasing, cockling. I mean, overall fairly minor as far as damage goes. I mean that’s not to say that, like, we haven’t had pieces dropped because we absolutely have. I was putting away a piece one time and Maggie was standing right next to me and I put it in its nice pillowed box, and it broke in half. And Maggie was like, ‘I was right here, there’s nothing you could have done.’ It turned out that when the conservator came in, it actually had a previous-

Veronica: Okay

Britt: break and repair in that area, but I was just like ‘but I just put it in a pillow!’ So, yeah.

Veronica: [00:14:42] So when you do have a damaged piece, who or what does it affect the most? So accessibility to students, public, researchers, use in exhibits?

Britt: [00:14:53] Probably use in exhibits. I would say that I’m a lot more likely to still pull out a work for a class even if it has a little bit of, like, light damage or something, than I would be wanting it to, like, actually be used in an exhibition…. Now if it’s at risk, like if, say like there was a piece that is just crumbling due to age or something, probably not going to let it be used in too many classes either, just because we don’t want to risk harming it any further. I mean if, if it’s like literally the only example of something that might be different, but like if it’s say, there’s this one pot that somebody really wants to look at and I have like three other examples of it, I’m gonna be like ‘how about these?’ So, I would say, like, probably exhibitions are, would be the
most affected, although most of our conservation tends to happen hand in hand with exhibition, so there’s that as well.

**Veronica:** [00:16:02] When and how do you determine when a conservator needs to be consulted for a piece?

**Britt:** [00:16:12] I would say that we’re probably a conservator heavy institution. If somebody does want to use something for an exhibit and, you know Maggie and I are like, this condition is a question, then we will consult before it is determined whether it can go on, but like I said that’s usually part of the budget. Especially for like permanent collection shows, you’re just, you know, you know something will need – so it’s like a built in aspect of all of our exhibition budgets. Now, if there’s, you know, four items and we can only afford to conserve two of them, then budget does come into play and that will ultimately be probably a curatorial decision, on which of the – if we’re like, you can’t show these four pieces because of condition, it’s up to the curator to decide which are the two for their vision that they need the most. So, just an example.

**Veronica:** Okay

**Britt:** [00:17:07] If we had an object that, like, every class was using every time, that would probably come into play as well. We do have a general collections budget that Maggie and I – so it’s not tied to any exhibitions, that does tend to be tied to use.

**Veronica:** [00:17:25] Okay. You answered I think a little bit of this, but what factors do you consider when making the decision? So budget, use of the object –

**Britt:** Yeah

**Veronica:** museum mission, use by the public?

**Britt:** [00:17:39] Yes. I would say I don’t think museum mission necessarily comes into play
**Veronica:** Okay

**Britt:** Because our mission applies to everything in our collection. So there is not, like, a real mission driven aspect, but definitely use and definitely exhibition and definitely budget. Maggie’s really good about going for the Greenwood Fund every year, which is a local and that usually is able to conserve one – we usually go for paintings cause they tend to be a little more expensive – and then we’ll use like our general collections, uh, general conservation fund to like match, price match or grant match, so yeah. Although I was doing, this is kind, so what I was doing this morning in that room, this is kind of conservational but kind of not at the same time, is we were actually doing, non-invasive testing –

**Veronica:** Oh

**Britt:** [00:18:36] on two of our objects, and we’re going to continue to do it, it’s everything from, like, ultraviolet light to radio – no that’s not what it’s called, what’s it when you get an x-ray?

**Veronica:** [00:18:54] That’s a good question, I don’t know

**Britt:** [00:18:56] That, that might – hold on, I’m gonna have to look. This is gonna drive me insane.

**Veronica:** [00:19:02] What types of pieces were these?

**Britt:** [00:19:04] So these two were… Infra-red and ultraviolet.

**Veronica:** Okay, yeah
Britt: [00:19:12] Neither one of those is what’s used when you have an x-ray. But they, so there’s also going to be an XRF\textsuperscript{11} gun which is the radio-fluorescent – it’s actually like, you have to have, like, radioactive training

Veronica: Wow

Britt: because it’s actually, like, it’s like an x-ray.

Veronica: Yeah

Britt: [00:19:24] So, we have a piece in our collection that is a question. We’ve had, you know, stylistic analysis and it’s either really unique or really not a thing, so we are doing more testing on it right now because at the end of the day, visual analysis can definitely tell you in some cases, but not in this particular case, so we have a Corinthian piece that we are really comfortable with, we are, like, pretty good on the dating, pretty good on, like, we’re, we’re very comfortable with it. So, it’s kind of like our good object.

Veronica: [00:20:01] Yeah

Britt: [00:20:01] And then we’re going to test the questionable piece, which is also Corinthian, similar time period, and basically what all of the different non-invasive tests are going to tell us is also, just like the chemical makeup of our object, which will definitely help for conservation-

Veronica: [00:20:17] Right

Britt: [00:20:18] later, but will also enable us to determine authenticity at the same time. The non-invasive testing is an area we have not done at all in our collection, and we’re really hoping to branch out and I happen to know, like this is like our first time doing it, we wanted to see how it would work, cause we’re actually working with the Anthropology,

\textsuperscript{11} X-ray fluorescent
Veronica: Oh cool

Britt: [00:20:43] Department, so this is like our test case, and it’s easy because there’s two and we have, just, you know, and actual, like, stable, happy, authentic piece and then the question – and they’re from the same time period so they can inform each other, but moving forward we would love to do, like, paintings in our collection, and, like, there is a handful of the ancient Chinese, uh, collection that we would love to have looked at, but that’s probably grant funding down the line. But ultimately, knowing more about the chemical makeup of, like, your paintings is not just for authenticity and research, it’s also for care.

Veronica: [00:21:21] Right

Britt: [00:21:22] So, I’m pretty excited. I mean like, but, we don’t face like, arsenic testing, you know that type of thing.

Veronica: Right, okay more the make-up of the object?

Britt: [00:21:31] Yeah, yeah, although if we found out there was arsenic, I would really love to know.

Veronica: [00:21:36] So if you guys continue to do this, would you continue to partner with the section on campus?

Britt: Yeah

Veronica: That’s really cool

Britt: [00:21:43] Yeah, I mean it’s professor Gerardo Gutiérrez and he has worked all over the world doing this type of testing and in all different kinds of collections. So we’re like, let’s partner!
Veronica: [00:21:54] Yeah, how cool!

Britt: Yeah

Veronica: [00:21:58] Okay, what types of resources do you reference for object care, and is there anything specific to stabilization for damaged objects?

Britt: [00:22:05] We have our library. I go to the library for pretty much everything. I will say that for condition, it’s kind of hard to find, but the Basic Condition Reporting Handbook is my must-have. It has everything, like, cause I mean, yeah, I can condition report a painting or a ceramic or most works on paper until, you know, the cows come home. But you give me a textile and I’m like, okay let’s go to the section on textiles or, you know, skin and leather. So it’s just, it’s very, very useful. It also gives us a standard vocabulary, and, just as much as ‘am I the verso, am I the recto’ like, so we make all of our students who are going to, to be condition reporting with us read, read the relevant section, not the whole thing. But it’s, it’s really very useful. I would say that, they have, we have like a care of prints manual, photograph care, also the National Parks Services has their grams, the Conserve O’ Grams – super helpful. Yeah. So, between the library and the Google, I think we have most resources for what we would be comfortable doing in-house. Specific to stabilization, I mean like we keep the pieces together. That’s not really a conservational, that’s just, like, so that when it’s conserved, everything’s together.

Veronica: Yeah

Britt: [00:23:58] I would also say, like… I mean – I don’t want to make it sound like we don’t have issues in our collection, but like most things don’t have to be treated super special

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12 Basic Condition Reporting: A Handbook, edited by Corinne Midgett, Heather Culligan, Deborah Rose Van Horn
Veronica: Okay

Britt: If they’re damaged we just make the notes, like, do not lift this piece because its hinges have failed, or that would actually not be what, that wouldn’t actually make sense, but like, if hinges have failed on a piece, we will note that so that you know that it is a lay flat only, like, you can’t turn it vertically, which is what you could do if it was hinged. So, like, we make those kinds of notes, but it doesn’t affect, like, our physical storage of the piece. Like, it’s still going to lay flat, in a drawer, like it would if the hinges were working. Some of the paintings I guess, maybe we’ll store them flat, instead of on the rack if the condition is a question. I’m just trying to think, like I know of a piece, like I made the box for it because it was one of the pieces I was originally brought in to look at and this poor, this poor – it’s a drinking cup, and it’s just, it’s been through the ringer. I mean it’s ancient, and so like in the box, like we’ve had it stabilized, but there are pieces that, you know, can’t really be reattached, but also are never, we don’t want to separate them. So like in our box of storage for the damage piece, it’s the piece, and then like a little lift-up area where, like, the little fragments that have come off of it live. So, I mean I guess we make mounts like that when we can. But like the perfectly healthy pot next to it, that’s also in a blue box. So, it’s not really like it’s forcing us to treat it differently. I guess, there’s another pot I can think of that, like, is stored horizontally instead of vertically. But, but I get, I – I haven’t eaten since like, 7am, so I might be going like– but yeah, so stabilization for damaged objects, I mean, between the resources and conversations with Maggie, I wouldn’t say that, like, there’s any, like, go-to guide – I mean the Conserve O’ Grams and the library is really…

Veronica: [00:26:14] Do you ever call a conservator just for advice? Yeah?
Britt: [00:26:18] Mhmm, yep I actually did it about our Sol LeWitt sculpture\textsuperscript{13} not too long ago.

Veronica: Okay

Britt: [00:26:23] So, because Sol LeWitt, being a well-known contemporary artist, like, he has an estate that closely manages his conservation, so they only allow like a few people to like do it, so I had to have a conversation with her where I was like, ‘hey, do I send this to you, like where are we at?’ And she was like ‘here’s what you do – if you’re local conservator, you know, just stabilize it with B72,’ it’s a long story… But basically, that sculpture that’s in the middle, you’ve seen it downstairs in Hope’s show, the minimalist exhibition

Veronica: Oh yeah

Britt: [00:26:54] That sculpture, to have that conserved, you have to re-do the entire thing.

Veronica: [00:27:00] Wow

Britt: [00:27:00] Yeah, so, like I had a phone call with her where I was like ‘hey, there’s a scratch, what do I do?’ And she was like, ‘Is the scratch visible when the sculpture is assembled? Yes or no?’

‘No’

‘Are we,’ or ‘How are your, you know, temperature and humidity conditions?’

‘Pretty stable.’

‘Alright, then you’re not worried about rust, all you have to do is stabilize the scratch with B72,’ and then eventually down the line, you know, when other things happen – but they won’t, you know, knock on wood –then you would have it conserved. But like, yeah, I mean it was just

\textsuperscript{13} Part Set D 1-5-9, by Sol LeWitt. Part of the exhibition titled Elemental Forms, on view at the University of Colorado Art Museum July 15, 2017–May 12, 2018.
sending her photos, having a phone call with her, about like, does this need to happen now, or can, can it safely stay how it is? And luckily for us, it can safely stay how it is and it doesn’t impact the visual piece. So yeah, we call conservators a lot actually. Sometimes it’s hard though because like, there’s only so much you can tell from a photo.

Veronica: Yeah

Britt: [00:27:52] Like, I’m like, ‘hey this hinge looks weird.’ And they’re like, ‘I can’t help you – like, I would need to actually, physically inspect it,’ so.

Veronica: [00:27:55] Okay, do you actively take part in professional development? If no, why not? And if yes, what sort?

Britt: [00:28:09] I think you know the answer is yes. Conservation and preservation – yeah, I mean… Kind of related, but like one of the things that I did when I was first starting out in the museums was WESTPAS\textsuperscript{14}.

Veronica: Okay

Britt: For like re-doing our emergency plan, making a pocket – we didn’t have a pocket plan, but we did have an emergency plan, but the emergency plan was for our old building, so I took a WESTPAS course and learned how to make a pocket plan, and learned how to update our actual emergency plan, and now it’s super easy cause it’s just like little things every year –I just go through like once a year and fix it. But yeah, so WESTPAS I guess was professional development, it was like a workshop. When I was at ARCS\textsuperscript{15} I went to one all about how to take care of digital media because that is an area

\textsuperscript{14} Western States and Territories Preservation Assistance Service

\textsuperscript{15} Association for Registrars and Collection Specialists; Britt attended the Vancouver conference in November, 2017.
**Veronica:** Oh yeah

**Britt:** [00:29:03] that – it’s an area that we, you know, we have a small collection of it now, it’s only going to grow, so I feel like it’s really important to get a handle on it now, before moving forward, so that’s my next project. Very excited. But yeah, so conservation and preservation, I mean… I’m just trying to think, so besides, like, caring for contemporary materials, and like the disaster… I’m trying to think if there’s anything I’ve really done that would be specific to… If I had all the monies for professional development, I would go to the IPI\(^1\), which is like the everything that you need to know about care of your photographs in your collection. I would love to take one of their workshops because, like, all the different types of photos and all the different types of processes are so fascinating, but also so different. So I would like, I would continue to do that if I, you know, could.

**Veronica:** Yeah

**Britt:** [00:30:20] I do get some professional development, I’m very lucky.

**Veronica:** Yeah, there’s always more.

**Britt:** Mhmm

**Veronica:** [00:30:21] Do you know what your museum’s operating budget is? And I think you said you do have funding specifically for conservation?

**Britt:** I don’t know the museum’s operating budget.

**Veronica:** Okay

**Britt:** [00:30:37] But I know that the conservation budget, like our general, non-exhibitions conservation budget is $2,000 a year.

\(^1\) Image Permanence Institute
Veronica: Okay

Britt: [00:30:46] I don’t know, I think it depends kind of on the exhibition and how much the conservation exhibition budget is, but, sorry I have no idea what our actual operating budget is.

Veronica: [00:31:01] That’s okay, I can probably find out.

Britt: [00:31:04] Yeah, we’re a state institution

Veronica: Yeah

Britt: I’m %100 percent sure you can find out.

Veronica: [00:31:09] What stabilization techniques would it be most useful for you to learn?

Britt: [00:31:16] I would like to be better at… What would I like to be better at? Cleaning. Honestly I, like, I can use, like, we have a Nilfisk vacuum, which is like the archival vacuum, so I know how to do that, but, like when the ivories needed to be cleaned, I was like I’m not touching that, because I don’t want to cause damage, 

Veronica: Right

Britt: – there is a bug in here – so that’s just something where, like, in theory I can do it, but in practice I don’t want to do it, so I think I could learn better techniques for that…. I’m trying to think if there’s, like, something specific I wish I – I mean, but the thing is, like, I really, I’m all about the no harm, so at the end of the day, I don’t know how much, how much more than I already do that I would feel comfortable doing.

Veronica: [00:32:20] Okay

Britt: [00:32:20] I’m not a fine arts conservator, I don’t know chemistry, I have no artistic skill whatsoever, I mean, yeah. I’m sorry if that’s like a non-answer.
Veronica: [00:32:38] No, that’s okay. Do you feel that you or other museums would benefit from a kind of guidebook on basic stabilization techniques for collections managers, or do you think that something else might be more useful?

Britt: [00:32:54] Ah, I can tell you right now I’m more likely to use a book than I am to watch a video, I don’t know why that is, that’s just me personally, I like a lot of photos. Trainings and workshops are the best way, I think, to learn new, new skills. Because you’re doing it hands-on, like, uh, I also went to a disaster recovery workshop where like, we like soaked water, like books in water and then learned how to –

Veronica: I did that, yeah.

Britt: [00:33:26] Yeah! And that was super helpful, because before that, I’ve never dealt with a waterlogged material, and to stabilize that in case of an emergency prepare – I would have been totally uncomfortable with it. So, going to that workshop and learning how to, how to deal with, like recovery, yeah, that was definitely helpful. And, do I hope – it’s much like my first day in class, like, I know how to do it and

Veronica: Yeah

Britt: and I never want to have to.

Veronica: Like CPR

Britt: [00:33:52] Exactly. Like, I have the skill, I hope to never, never have to use it. That’s how I feel about, uh, disaster preparedness.

Veronica: Yeah

Britt [00:34:01] So yeah, I think that if I wanted to learn, like, more stabilization techniques, I would prefer a training or a workshop.
Veronica: [00:34:08] Okay. So is there any literature you could recommend related to this topic?

Britt: [00:34:15] Besides my Basic Conservation Handbook…

Veronica: [00:34:19] Can you get that online?

Britt: [00:34:20] Yes

Veronica: Okay

Britt: You can, and I actually think, I think this might be the latest edition, I think they might be on like their 3rd or 4th –

Veronica: Oh Okay

Britt: edition. But it’s so good… let me grab, I’m really bad at remembering titles cause I just know where things are. I do use this one, *Conservation Concerns*,[^17] it’s actually on top because I was just looking at it about something IPM related.

Veronica: [00:34:46] Okay

Britt: [00:34:28] But, yeah this is a great – oh, see this has stuff that like I’ve never had to look, learn. So the storage of historic fabrics and costumes.

Veronica: Oh wow

Britt: [00:34:56] Never had to do that before. But we just got some stuff on loan, so, probably should, uh, read it. Although they probably sent their own storage. Textiles… I mean it’s really – do you want to take a picture of it?

Veronica: Yeah

[^17]: *Conservation Concerns: A Guide for Collectors and Curators*, by Konstanze Bachmann
Britt: Cause it is very helpful, and I mean I really was just looking at it, which is why it’s on top. I’m trying to think it there’s anything… I mean, we have like books specific to IPM….

Veronica: [00:35:29] Okay

Britt: But I would say, like, not really, like, my go-to that’s a very specific thing.

Veronica: [00:35:36] Yeah

Britt: Uh, yeah.

Veronica: [00:35:49] Those are the, the tops ones?

Britt: Yeah, I mean there’s, like, there’s a book specific to like, the care of prints, but I have Maggie, and Maggie’s really good at that particular area. So honestly, before going to the book, if I have a question about, like, a specific way of printing, I’m gonna be like ‘Hey Maggie… can you come look at this with me?’

Veronica: [00:36:11] Okay. Okay, so do you consent to the information you have provided being used in my master’s thesis?

Britt: Yes

Veronica: [00:36:23] And, do you consent to the information you have provided potentially being publicly distributed?

Britt: Yeah

Veronica: Alright, great, thank you!

Date: November 21, 2017

Interview with Lindsey Vogel-Teeter, Curator of Collections at Pueblo Grande Museum and Archaeological Park
**Veronica**: Please state your name and job title.

**Lindsey**: My name is Lindsey Vogel-Teeter. I’m the Curator of Collections here at Pueblo Grande Museum.

**Veronica**: [00:00:09] Could you tell me about your background and training, and please include how long you’ve been working in collections?

**Lindsey**: Sure, I’ve been working in collections for 11 years –, actually 12 years, 12 years this year. My background – I have my Bachelor’s in History and my Master’s is in Public History. I volunteered at museums throughout undergrad, and then in graduate school I interned at Pueblo Grande Museum, and continued, got hired on here and continued working part-time at Pueblo Grande, and at multiple other museums including the Arizona Capitol Museum and at Rosson House or Heritage Square Foundation, which operates the Rosson House Museum, so I worked at all of those while finishing my master’s thesis, even though my master’s is in Public History, my thesis was about Maricopa pottery and was used as the basis for an exhibit, so it was heavily museum focused, I wrote a catalogue for my thesis. And then my training... So, I took graduate level courses in collections management, and then I had the internship and a lot of on the job training for collections management. And then I take as many collections management professional development classes as I can, so, anything that’s come through the valley I try to take, I try to take as many webinars as I can, and as many workshops as I possibly can.

**Veronica**: [00:01:44] Cool, what types of material do you care for, and what is the most common material in your collection, and the most fragile materials in your collection?

**Lindsey**: Okay, so we are the archaeological repository for the City of Phoenix. The majority of our materials are archaeologically derived, so we also have ethnographic collections, the Native
American ethnographic and historic objects. I did a little math for you to see how [vast] our collections are, the most common is going to be ceramic followed by stone, shell and faunal, and we do have a small sample of botanical materials, so that’s going to include prehistoric basketry fragments, prehistoric ropes, sandals, things like that, as well as modern ethnographic baskets, and I would consider those to be our most fragile materials. Oh, and I wanted to ask you, so your question, b, was “What are the most sensitive materials in your collection?” Did you mean culturally or materially?

Veronica: [00:02:50] And that’s something my committee and I talked about, and that is one of the ones that we changed.

Lindsey: Okay, alright

Veronica: Yeah, I meant physically, like stable –

Lindsey: Okay

Veronica: - related to stability

Lindsey: Yes, so uh –

Veronica: - didn’t want to get into –

Lindsey: [00:03:00] Materially, it would be the botanical objects. And we do have one painted basket, it’s a burden basket with paint on it, and I would consider that probably the most fragile, and then we have some Navajo textiles as well, so we have basketry, we have Navajo textiles, [?] rugs, and those are fragile mostly because bugs really like to get at them. And then we also have Maricopa pottery which is painted with a mesquite paint and so it’s organic, and it’s very light sensitive, so we have to be really careful with that one as well.
Veronica: [00:03:35] What preventative conservation methods do you currently engage in, such as IPM, light mitigation, art handling training, etc.?

Lindsey: Okay, we do IPM, we could be better about IPM. So, honestly, the way we used to do it when we had more staff we would check the bug traps every week, and we recorded everything, and now I try to check them once a month, unless I see something walking by. And I do keep track of what we find, but really just pay attention to dermestids and cockroaches; particularly in our building we have a lot of cockroaches. So we do that, we do light mitigation—all of our lights in collections have a UV tube over them. We try to check our light levels every year to check for UV and make sure our filters are still working, and I then also try to keep out light levels low just depending on the type of objects they’re with. Most of the objects we put out on exhibit aren’t light sensitive, and when we do an exhibit that is light sensitive, we keep a lower light level.

Veronica: Okay

Lindsey: And regarding preventative conservation, a lot of mounts, so a lot of pot rings and things like that, that just help to stabilize an object. We use a lot of the pre-fab ones that come in, the Ethafoam rings and then we also make our own and uh, a lot of handling training as well.

Veronica: [00:05:08] Sub-question to that – do you interact or interview living artists at all?

Lindsey: Yes we do, we work with particularly Maricopa pottery, Maricopa artists, so Piipaash, from Gila River and Salt River, and then also some of the traditional O’odham artists who will do like shell jewelry or basketry or other traditional crafts. We’ll work with them, sometimes we have commissioned pieces – we don’t do it often because it’s expensive—but we do work with them and honestly we interact a lot with artists who are learning, a lot of times their teachers will
bring them in to come see the works in our collections so they can get inspiration. And we’ve also done a lot with tribal elders, and having them be able to come in and view pieces that were made by members of their family.

**Veronica:** [00:06:04] So do you do anything, like, if you were taking a piece, or you have a piece in the collection from a living artist, do you talk to them about how they want it to be cared for?

**Lindsey:** You know, I haven’t done that – I think that’s a really interesting, that would be an interesting approach. Most of the artists that – no, you know we haven’t done that. I’ve talked to a couple of the artists about the sensitivity of the paint, and we talk about how we try to mitigate that, but no, I haven’t ever thought to ask a living artist how they would like their object to be handled. That’s a good question.

**Veronica:** [00:06:49] Have you done stabilization work before, and if so what kind?

**Lindsey:** Alright, stabilization… Can you define it?

**Veronica:** Sure, I’ll give an example – so, something that has had maybe a minor break, or a tear, and trying to mitigate that damage in any way. So, either repairing it, or just doing something to make sure that it doesn’t get worse, so like if there’s a crack in a pot, or a hole in a textile, or something along those lines.

**Lindsey:** [00:07:18] Right, pots, yes. So we do – and I should clarify that. I will do like one piece. So if there’s, like, one sherd that fell off the rim of a pot, I will do that, but that’s about as far as I’ll go. If it’s a multiple piece pot, we contract it out just because it is so hard to do them well, and I don’t have the – enough experience to do a full pot well. So I’ll do one piece if it’s like two or three sherds that go together, I’m really comfortable doing that, I have training on how to put those together and we use HMG glue
Veronica: HMG?

Lindsey: Mhmm, Her Majesty’s Glue. We can go look at that at the end to see –

Veronica: Okay –

Lindsey: but I think the one we use is the, uh, I think it’s a Paraloid B72

Veronica: Okay

Lindsey: [00:08:09] We have another one that we use for outside because it’s less heat sensitive, but we only use it on replica objects, and it’s a cellulose nitrate so it tends to – over time it’s going to yellow. So we tend not to use that on objects in that permanent collection. So I’ll do that kind of stabilization, very minimal. I’ve taken workshops on basketry cleaning, but I’ve never actually done it because I’m too chicken, and… I’m trying to think if I’ve done any other stabilization. I’ve done a couple of paper stabilizations in a workshop, like a map stabilization in a workshop, but I haven’t really done that in our own collection. A lot of times, what we’ll do is if we have a photograph that’s falling apart or a piece of paper that’s falling apart we’ll encapsulate it in Mylar

Veronica: Okay

Lindsey: [00:09:13] And I don’t usually do a full seal, I’ll usually use a sleeve to slip it in if I can do that safely. So usually we just try to kind of minimize the future damage, and leave the damage as is, unless it’s very minor.

Veronica: Okay, so all of these different types of things, are these, like, workshops that you sought out –

Lindsey: Yeah, so I’ve taken workshops on my own through conferences that, where they’ve offered a sub-workshop for a fee, and then a lot of on the job training as well. So our former
The curator here was kind of a mentor and had a lot of experience and that trained me to put together ceramics, but just again, just a few pieces because it’s difficult to do them well.

Veronica: Yeah. What kind of archival materials do you use in collections storage, and where do you order your supplies from?

Lindsey: [00:9:57] So we use a lot of archival materials so all of our folders are going to be archival, our bags, since we’re an archaeological museum we use a lot of polyethylene bags, so we make sure they’re inert, virgin plastics. For things that are going to be with our images, we use an inert plastic, and something that’s passed the photo activity test (PAT test). We use document enclosures, and then if we are going to use adhesives on anything, it would be neutral – when it comes to archives I don’t really put adhesives on things, but I’ll use neutral adhesives on paper closed in a box or something like that. And then usually we order our supplies from archival companies, mostly Gaylord because they have discounted shipping and they are a vendor with the city of Phoenix.

Veronica: Okay

Lindsey: [00:10:51] Um, and we have actually ordered some from Amazon, but I try to stick to reputable bands, so like print file enclosures are available on Amazon, and I’m comfortable ordering those from Amazon, I use some, I buy a lot of the non-archival supplies from Amazon, like, [?] or things like that, the scientific equipment, I have no problem buying that from Amazon.

Veronica: [00:11:22] How big of an issue are damaged pieces in your collection, and what are the most common types of damage?
**Lindsey**: Sure, how big of an issue… I had a hard time deciding. So, one of the, a lot of our pieces are heavily damaged because they’re archaeological, most of the time they come in broken and that’s something that we’re used to seeing. But we do have a lot of damage from previous reconstructions that have been done here, when they’ve used like Duco cement and model airplane cement and plaster to refill the pieces and so that’s one of the biggest issues is those pieces are really difficult to display because they’re so ugly because they have this like yellow-white plaster, so that’s a really big issue for us is basically if we want to display those a lot of the times we have to go in and we kind of paint in the old plaster, a more neutral color to get closer to the pottery and then we leave a little boarder so that seems to take away some of the ugliness, but that’s one of the big issues we’ve had. And also we’ve seen a lot of loss of designs from over cleaning of objects, not necessarily within the past 30 years at the museum, but previous to there being more professional museum staff, a lot of pieces have just been scrubbed clean and they, you’ll see a original photo of them and they’ve got a good design and they’ve just been scrubbed, it’s very difficult to see the design. I would say damaged pieces are most, uh… they mostly impact exhibits, because I think researchers can actually gain a little bit more information from damaged pieces, if you have a broken piece of ceramic you can see the temper better, you can see the paste, so you can get more information from those, but that would be a scientific researcher. So, I think like an ethnographic researcher or a modern artist who wants inspiration, that is detrimental to them, they can’t see the piece as it is. And I would also say, yeah the public cause it’s hard to say ‘hey look at how beautiful these pieces are!’ when they’re, they’re broken or put back together poorly.

**Veronica**: [00:13:45] Um, when and how do you determine when a conservator needs to be consulted for a piece, and what factors do you consider when making this decision?
Lindsey: Okay, so usually the number one thing for me is justification – why am I doing this? So I need to have a good reason to put it back together whether it be for the stability of the object, or usually for us for exhibit purposes. So usually for us, if we’re going to have a piece put back together it’s because it’s getting ready to be used or go on exhibit. So that’s the, the first thing I think about, because for us, a whole pot is a lot more difficult to store than a bag of sherds.

Veronica: Right

Lindsey: [00:14:29] Because you have to be a lot more careful, and it’s got, the sherds are already kind of broken, but the pot, it has a chance to break, and so that’s one of the things that we think about is if we have this reconstructed, it is going to be more difficult to store, is it worth it and is it worth the damage that could happen to the piece in the long run. And then if we do decide to reconstruct or use a conservator, we always go with someone who’s got accreditation or experience. We usually use conservators at Arizona State Museum, and then the thing that comes in for us is once we’ve decided that ‘yeah, we would like to work with this piece’ or ‘have this piece reconstructed,’ the next thing is budget – ‘can I afford to do that?’ and there are a bunch of other objects that I’d like to have worked on, for example, our basketry – we have a couple of really large baskets that I’d like to have a conservation mount made for, for storage. I feel like that would be a greater justification than reconstructing a piece for an exhibit, but the cost of having that conservation mount and care done on the basket is much higher than it is for us to have, you know, a pot put back together, so it’s really kind of 50/50. I’m trying to go back and forth and decide, you know, if this basket really needs attention because it’s starting to be damaged by the lack of a good mount. That is more worth it to me than putting back together a pot that would be just on exhibit.
Veronica: [00:16:05] Okay. What types of resources do you reference for object care, anything specific to stabilization for damaged objects?

Lindsey: I look at a lot of YouTube –

Veronica: Alright

Lindsey: And I think you have another question about, resources

Veronica: Yeah

Lindsey: [00:16:22] Right? So I look at of YouTube, I looked back through notes that I’ve taken from workshops and booklets I’ve received from workshops. I usually use things like the Canadian Conservation Institute Notes, so I usually start with them, or the Northeast Document Conservation Center. Resources… So I try to go with a reputable resource. And then honestly, I look at YouTube because there’s some really good videos out there by conservators, and then there’s another blog that I’ve got written down for you that I really think they do a great job of kind of step-by-step, I’ll also reach out to my colleagues in other museums. There’s a registrar’s listserv through AAM that I’m on, and I’ll reach out to people on that, I’ve had really good luck just kind of having someone help me, point me in the right direction, or I’ll usually reach out to other colleagues.

Veronica: [00:17:29] Cool

Lindsey: And specific to stabilization for damaged objects… It depends on what the damage is to the object, if it’s like a photograph that I’m just going to put in a encapsulation, I don’t really use references anymore because I know how to do it, but there are a couple of really good publications that we’ll use from the… I think one of the photographic institutes has put out a couple of really good books on care for photographs.
Veronica: [00:18:10] Okay. Uh, do you actively take part in professional development? I think the answer is yes…

Lindsey: Yes!

Veronica: [00:18:16] If yes, what sort? And anything related to conservation and preservation of objects?

Lindsey: [00:18:20] Pretty much anything I can get my hands on. I take, I take as many webinars as I possibly can, it’s kind of gotten to the point where I’ve pretty much taken most of the webinars that are out there right now, I use the Collections Care Network, they’ve got a lot of really good webinars, so I try to make sure my staff is up on all of those if I’ve already taken them. For conservation and preservation I prefer, like, a hands-on class. We don’t get a lot of those in Phoenix, but we’ve hosted a couple of large museum conferences within the past two years, and we’re hosting AAM in the spring. So, I try to take those extra workshops, I do have a professional development budget through the City of Phoenix, and so that has helped me, but back when I was part-time I had to kind of pay for it out of my own pocket and so cost was really limiting to me, but now I can’t go out state, really, for training, but I can take most of the courses here.

Veronica: [00:19:23] That’s awesome. I didn’t know that the City of Phoenix –

Lindsey: Yeah, they do, so it depends on what level you are in the city, you have X amount of money to use for professional development, but that also relates to your memberships and things like that, so you really have to justify.

Veronica: [00:19:43] Okay. What is your museum’s operating budget, and do you have funding specifically for conservation?
**Lindsey:** Okay, well we’re run by the City of Phoenix, our operating budget is over $900,000, but the majority of that goes to staff. I think our general, just day-to-day without electricity and AC is $18,000 is how much we have free to spend. I don’t get any of that directly for collections, I have a, I have a separate special line called the repository fund, where monies that we collect as repository fees are deposited and I’m allowed to use about $20,000 of that every year for care of repository objects, but that includes things like staff and contractors, carts, boxes, bags, anything I need there, so it, it usually goes to preventative conservation, but I haven’t, I can’t use that line for basketry because it doesn’t come in usually with the archaeological repositories, so usually it’s used for staff and general supplies. And then I do also have a small line from a non-profit that’s associated with our museum, our Auxiliary, I get $2,000 every year for that.

**Veronica:** From the Auxiliary?

**Lindsey:** Yeah, and that’s to cover like all of my supplies, internships, if I want to send a non-full time staff member to a conference I have to pay for it out of that.

**Veronica:** Okay

**Lindsey:** So we do – the conservation that we have had done, we’ll pay for out of that line.

**Veronica:** Okay

**Lindsey:** But it’s -$2,000 does not go very far.

**Veronica:** Yeah. What stabilization techniques would it be most useful for you to learn?

**Lindsey:** I was thinking about this – so, when we’re talking about stabilization, again, are you talking about, like, preventative mounts, or what are you talking about? Anything?

**Veronica:** Yeah, pretty much anything that you would find useful for this collection.
**Lindsey:** Okay

**Veronica:** So yeah, preventative techniques, or, you know, if actively repairing something is something that you would do, or…

**Lindsey:** [00:21:58] Yeah, I would say a couple of the things that I’d like would be advanced storage mount-making, like cavity boxes, or curved mounts for basketry – I see those a lot and I haven’t been able to find a good instructional on how to do that, I’ve gotten some hands on instruction on how to do that, but I haven’t seen a lot of that. I’ve seen a lot of pot ring demos, but I haven’t seen a lot online about cavity mounts or the curved basketry supports. The other thing that I would like to do more of is map flattening and map cleaning. So large paper cleaning – I don’t see a lot of that online that I’m comfortable doing. And then I would say basic cleaning of organic materials. So I’ve taken a basketry cleaning workshop, and I’ve taken textile cleaning workshops, so I’d like to see a little bit more of the paper, cause I think that’s something that we have a big problem with, with archaeological materials – they usually come in from the field and they’re filthy. And I usually, we usually just put them, well interleave them with paper to protect them from – the other documents from them, basically, and leave them. But I think that would be something really good, but yeah, map flattening would be, would definitely be a good one. And probably some basic map repair would be good, or paper repair.

**Veronica:** [00:23:21] Okay. Do you feel you or other museums would benefit from a kind of guidebook on basic stabilization techniques for collections managers, and do you think something else might be more useful?

**Lindsey:** I’m gonna move cause the light’s gonna go off here – Okay I think we’re good. Okay, yes, I do think that that would be an excellent resource. I do think that it should be digital,
whatever you do should be available digitally because that’s honestly how I find a lot of my resources is just –

**Veronica:** Like a digital, like, PDF or video?

**Lindsey:** [00:23:55] Yeah, I think videos are great, I love doing YouTube, because I just think you can see, see things so much better, but it’s really hard to know who to trust, you know, so I think a PDF would be great to start something that would come up in a search, and then if you link to videos or something, that would be awesome, because I think it’s, it’s really good to see it in action, but I do think basic step-by-step instructions in a written form would be good as well.

**Veronica:** Okay

**Lindsey:** Some kind of combination of the two.

**Veronica:** [00:24:31] Is there any literature you could recommend related to this topic?

**Lindsey:** Yes, there is a great blog called Inside the Conservator’s Studio, I don’t know if you’ve seen that one?

**Veronica:** No

**Lindsey:** [00:24:42] Um, that’s a really good one, she does some, she’ll do examples of projects that she’s done, and she gives some step-by-step instructions and I really like her blog. And there’s another one, a collections manager blog[^18], but I can’t think of the name right now, and the city has blocked our blog access, I can’t look it up, but there are a couple of really good, blogs out there like that and there are a couple of really good YouTube videos that have been put up by museums. And then there’s a thing, I don’t know if it’s still in existence, but, AAM used to have a packing and crating information network, and I brought you –

[^18]: Unsure which blog this is.
Veronica: Awesome

Lindsey: [00:25:21] It’s, it’s a soft-packing booklet\(^\text{19}\), so if you would like to, make a copy of that –

Veronica: Yeah

Lindsey: or anything before – it was a workshop I took and then they had that to hand out and it’s got instructions for boxes in the back which are super helpful and I feel like once you’ve learned how to make a box, you’re good to go. That’s one of the other cool things is you can take a lot of videos or instructionals online that aren’t necessarily geared toward museums and you can make, and turn them into museum stuff – like box making.

Veronica: Yeah

Lindsey: using quality box mounts.

Veronica: That’s awesome.

Lindsey: Um, I have another, I took a workshop from a conservator if you’d like to see the hand-outs from that, I could probably pull those as well –

Veronica: Okay

Lindsey: I can get that for you.

Veronica: [00:26:08] That’s awesome. Yeah, they, did a short presentation at ARCS which I went to a couple weeks ago, so they’re around, I think it’s P.A. – it might be two C’s now though.

Lindsey: Yeah, they might have changed it. It’s not, what, American Alliance of Museums, not ‘Association’ too.

\(^\text{19}\) Soft Packing: Methods and Methodology for the Packing and Transport of Art and Artifacts. Booklet by P.A.C.I.N. (Packing and Crating Information Network), now P.A.C.C.I.N.
Veronica: Yeah

Lindsey: [00:26:27] Um, and I haven’t been on their website lately, but, that’s one of the best, the best hand-outs that I received.

Veronica: Cool, yeah I might look them up ’cause I just started following them on Facebook too. So, do you consent to the information you have provided being used in my master’s thesis?

Lindsey: Yes

Veronica: [00:26:46] And do you consent to the information you have provided potentially being publicly distributed?

Lindsey: Sure, yes and yes.

Veronica: Thank you!

Lindsey: No problem, you are welcome.

Date: November 21, 2017

Interview with Arleyn Simon, Collections Manager and Associate Research Professor at the School of Human Evolution and Social Change at Arizona State University

Veronica: [00:00:00] Could you please state your name and job title?

Arleyn: [00:00:03] Okay. My name is Arleyn Simon, and I am an associate research professor and I am also the collections manager for the School of Human Evolution and Social Change, which used to be the Department of Anthropology, but now it has a lot of other additional disciplines.

Veronica: [00:00:30] Okay.

Arleyn: [00:00:31] Within the School.
Veronica: [00:00:31] Okay. Could you tell me about your background and training? And please include how long you've been working in collections.

Arleyn: [00:00:39] Okay, well long stories. As an undergrad I was a Fine Arts major with a secondary and minor and had an unofficial double majoring in Anthropology and I taught art in a public school in Wyoming for a few years before I decided to go back to grad school in Anthropology. So my M.A. degree was from Oregon State and I was interdisciplinary, M.A. in Anthropology, Education Theory and Fine Arts. And then I worked for the University of North Dakota, ran an archaeological field school for five years. Or, not a field school, I should say field station. We had a lot of students who came out there and worked and – doing CRM – and then decided to get my Ph.D. which brought us to ASU and Phoenix. So I did my Ph.D. work here at ASU and finished that right at the time the Roosevelt projects were up starting around Roosevelt Lake. So on that I was the laboratory director in charge of all the analyses in the database for Roosevelt. We excavated 120 sites.

Veronica: [00:02:46] Wow.

Arleyn: [00:02:46] In four calendar years and then spent another six years writing them up.

Veronica: [00:02:56] Oh wow.

Arleyn: [00:02:56] I conducted and wrote up a lot of the ceramic analysis, and then right about the time that was finishing up, ASU got a contract to curate the ASU Roosevelt collection and three smaller ones for the Bureau of Reclamation and the Tonto Forest, and so I was hired to be the collection manager of that. And then somewhere about ten years ago, I also became the Collection Manager for all of anthropology collections. So it's a case of departments consolidating positions.
Veronica: [00:03:52] Wow. So what types of materials do you care for, what are some of the most common materials in your collection, and some of the most fragile?

Arleyn: [00:04:00] Okay, well the majority of the materials we care for are archaeological, a lot of broken pottery, lithics, ground stone, all the usual macro bot, fauna et cetera. That's probably 90 per of the collections are archaeological. But then we have these ethnographic collections- Latin American folk art, the Southeast Asian collections, some Southwest ethnographic, and this recent African one. And I think the textiles, basketry, perishable materials are the most fragile and delicate to care for.

Veronica: [00:05:02] What preventative conservation methods do you currently engage in? So IPM, light mitigation, art handling training.

Arleyn: [00:05:10] Well we, we try to keep control on the pests, and here at our new facility, at Alameda, that's fairly easy to do. At the other locations it's a little more challenging, we have to monitor it fairly closely.

Veronica: [00:05:30] And how many sites do you have, or how many areas are the collections -

Arleyn: [00:05:35] There are three different buildings. One is an old hospital, and, on Curry Road, and the other one is the old library stacks in the original ASU library building. So we have to monitor for pests and sometimes we have to have ASU pest control come in and do bug bombs, or trap.

Veronica: [00:06:07] Wow.

Arleyn: [00:06:08] Yeah, cause the one build – the old hospital occasionally gets invaded by a few roof rats.

Veronica: [00:06:16] Yikes.
**Arleyn:** [00:06:19] So the plan in the long run, who knows when this will happen, will be to consolidate all of the collections here at Alameda and the rest of the warehouse. So it would all be in a newer facility that meets modern standards, but there is no timeline that cause it's of course waiting on availability of university budget. So we do the best we can to mitigate problems and jump on them. The fragile materials, we try to protect them light from as much as possible. Most of the ethnographic collections are packed away in cabinets or containers or in rooms where the lights are off unless people are in there. Especially textiles and basketry. And we do training with the students regarding handle, properly handling objects, so of course when they're dealing with bulk sherds and lithics sometimes it's hands-on. But when they're dealing with the ethnographic collections in particular then it's gloves, and proper lifting and we have a great little booklet that Nancy Odegaard authored that we use to help train the students.

**Veronica:** [00:07:54] Okay. Have you done any stabilization work before, and if so what kind?

**Arleyn:** [00:08:10] Well it's a bit limited, but when I was doing the Roosevelt collection, we were doing the actual fieldwork. Nancy Odegaard was our conservation consultant, she was wonderful. And I think one, two of the most challenging things we had to deal with back then were, one of them, there were a couple things that were made out of antler or bone that were discovered in the field and they were moist in the ground and we contacted her to find out about how to get those block lifted, brought in from the field. They were small fortunately, and placed them in the refrigerator.

**Veronica:** [00:09:06] So you'd take them with the surrounding-

**Arleyn:** [00:09:10] With the soil around them.

**Veronica:** [00:09:10] Okay.
**Arleyn:** [00:09:10] And, bring them in in the refrigerator and she recommended saturating some paper towels with alcohol and encasing that around it to inhibit mold forming and just gradually, over a period of a few weeks, let them dry out to where they could stabilize and have the dirt cleaned off. So that was very valuable information, and there also was another form of, I think it was called Acrisol or something, it was water based acrylic that could be coated on to bone that kind of saturates into it and helps stabilize it, so you dilute it in water and saturate it in. And uh, but it doesn't harden immediately so it still allows you to clean the outer surface, so that was used on some of the bone, rather than the decade before that people would have been painting P.V.A. on everything – polyvinyl acetate, which makes a hard shellac type stuff.

**Veronica:** [00:10:28] And this is like removable, or?

**Arleyn:** [00:10:30] Yes.

**Veronica:** [00:10:30] Okay.

**Arleyn:** [00:10:31] Yeah, it's removable. And also about the same time I had previously had Vicki Cassman was doing her Ph.D. here and took one of my field classes, and for her project she did a study of different acid washes on ceramics and the tradition here in the valley had been to use to diluted muriatic acid, hydrochloric acid like you used in your pool with water to dilute it, and use that to get the caliche, the calcium carbonate, off the ceramics. And this had been done for decades and the bad thing about it is it's inorganic, it stays in the ceramic and is hard to neutralize, and it's also nasty for the people that have to use it, be around it. Anyway, Vicki had recommended switching to acidic acid which is basically vinegar, like white vinegar, and reducing it, and so that's what we did for Roosevelt to wash off the pottery and it took some convincing of some of the archaeologists cause you didn't get that active fizz going
Veronica: [00:11:54] They're like is this working?

Arleyn: [00:11:55] But it works and it's organic acid and it's also dilute. So, you do a water wash, then the acid wash with soft vegetable brushes, natural fiber, and then rinse it in water and then let them dry.

Veronica: [00:12:20] Oh cool.

Arleyn: [00:12:20] This worked very successfully and I've always been trying to suggest that to other people to get rid of the old stuff. Also in the field then you can just, you know, pour it out on the ground when it gets weak.

Veronica: [00:12:36] Yeah.

Arleyn: [00:12:37] And you're not going to hurt the environment – you can't do that with hydrochloric acid.

Veronica: [00:12:42] Right. How cool. So did she come up with- how did she come up with the solution?

Arleyn: [00:12:47] Well she was trained in conservation for the Getty.

Veronica: [00:12:51] Oh okay.

Arleyn: [00:12:53] She's now a professor in, I think Baltimore.

Veronica: [00:12:57] Okay. What was her name again? Vicki?

Arleyn: [00:13:01] Or Delaware, I may have that mixed up I think it's Delaware.

Veronica: [00:13:04] Okay.

Veronica: [00:13:17] Oh cool.

Arleyn: [00:13:17] But she earned her Ph.D. here in anthropology, and she had a previous M.A. from the Getty in Conservation


Arleyn: [00:13:31] That was neat.

Veronica: [00:13:32] what archival materials do you use in collections storage, and where do you order supplies from?

Arleyn: [00:13:38] Okay, well there's many different suppliers and sometimes we order things from Gaylord because they are the only ones that have certain things, but if we you can, we order a lot of products through Uline, which does have some archival materials, and they’re also used by the National Park Service repository in Tucson, WACC20, for a lot of their supplies – they’re much more economical than Gaylord for many things like acid free tissue, boxes, and the polyethylene bags, so a lot of our bulk supplies we get through them. And occasionally we have to special order something from someone else. We don't use a lot of chemicals except for acetone and ethyl alcohol that we use to mix with the glue, and we get those through the ASU chemistry store.

Veronica: [00:14:59] Is it like an online something for ASU – ASU chemistry store?

Arleyn: [00:15:05] Yeah well it's a location on campus where you put it in your order and then they'll deliver it, and they'll also pick up the empty bottles and properly dispose of them, and stuff like that. So many universities have that.

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20 Western Archeological and Conservation Center
Veronica: [00:15:23] And what sort of archival materials do you guys use here? It looked like Blue Board, Heritage Board.

Arleyn: [00:15:30] Pardon?

Veronica: [00:15:30] Uh, like Blue Board.

Arleyn: [00:15:33] Oh Blue board, yes.

Veronica: [00:15:33] Heritage Board, types of foam.

Arleyn: [00:15:35] The Blue Board we get from, from Gaylord. We got a big bulk of that, and then we can cut it and make boxes to the size we need. And again it's more for perishable materials. We don't use archival quality boxes for the inorganic archaeological material like pottery sherds and lithics, those are stored in poly bags which are archival, but they really don't care if they're in an acid free box, and acid free boxes are very expensive. So we save those for the organic material.

Veronica: [00:16:26] Okay. How big of an issue are damaged pieces in your collection, and what are the most common types of damage?

Arleyn: [00:16:34] Well most of the damage is things that occurred prehistorically, where you have broken pottery vessels that were that way at the time that people were there, soon after abandonment from the buildings collapsing, and things like that so it's a matter of reconstructing those. I guess we have, being an anthropological collection, we have a different perspective than many art museums that want perfect pieces. We have received a few donations of historic pottery that was flawed – had had some damage or cracks or erosion to the surface that was turned down by the Heard Museum\(^\text{21}\), because they only want museum quality art pieces, and so they are

\(^{21}\) The Heard Museum is an American Indian art museum in Phoenix, Arizona.
referred these donors to so we felt that the pieces still had a lot of value in terms of learning for students and for display too. We think that ware patterns and breakage and things are part of the story. So it's just a different perspective.

Veronica: [00:18:07] Yeah.

Arleyn: [00:18:08] Of things. But if, if there is something active going on, damaging something, then we try to nip that in the bud.

Veronica: [00:18:20] So when you have a damaged piece, who or what does it affect the most? I don't know if you guys do exhibitions with some of the pieces here, or access to the public or researchers, things like that?

Arleyn: [00:18:32] Well all of the above. I guess it just depends on the exhibit for exhibit loans, whether they want more complete pieces or not, but oftentimes there are incomplete or reconstructed pieces that still get used in exhibits, and certainly for research where there's still a lot of value can be learned about the object.

Veronica: [00:19:08] When and how do you determine when a conservator needs to be consulted for a piece, and what sort of factors do you consider when making that decision?

Arleyn: [00:19:17] Well, it would be a case of active damage going on that requires expertise or experience that we don't have, that we would call a conservator to consult on what the proper steps would be. It doesn't happen very often.

Veronica: [00:19:43] Okay.

Arleyn: [00:19:43] I think we're fortunate that we live in a very dry climate.

Veronica: [00:19:47] Yeah, definitely. So do things like budget, or needs of the public or researchers or things like that come into play when you're trying to-
**Arleyn:** [00:20:03] Well, it hasn't been a big issue. I mean it's, it wouldn't be like an art museum where we have to have some cleaning restoration done or paint delaminating from the canvas or something like that. We haven't been faced with any issues like that.

**Veronica:** [00:20:26] Okay.

**Arleyn:** [00:20:26] We do have a small budget that can be used if we need to, but-

**Veronica:** [00:20:33] Dedicated to conservation?

**Arleyn:** [00:20:34] Well no, it's just a general budget, so you'd have to allocate a certain amount.

**Veronica:** [00:20:46] What types of resources do you reference for object care, and is there anything specific to stabilization for damage objects?

**Arleyn:** [00:20:53] Well a lot of what we rely on are the National Park Service Handbook for museum handbook – there are curation guidelines in there for various kinds of materials, and also their Conserve O' Gram publications. So those are a big source of information for us, for the types of collections that we have, and they, they're pretty comprehensive in what they cover.

**Veronica:** [00:21:33] Do you actively take part in professional development?

**Arleyn:** [00:21:38] Well, I'm active in the Archaeological Society, but I don't… Occasionally, a couple of times a year we might, I and some of the students might listen in on one of these museum webinar type things.

**Veronica:** [00:21:57] Okay.

**Arleyn:** [00:21:57] But I guess the range of things we deal with are pretty, pretty well in hand, so, yeah.
Veronica: [00:22:13] Do you know what your museum's operating budget is, and do you have funding specifically conservation? We sort of touched on that.


Veronica: [00:22:23] Right.

Arleyn: [00:22:24] But it's, uh, can be used for that as we need supplies and that type of thing. We have a few work study students each year and then we also have undergrad interns that are taking internship for credit, and occasionally masters students that are doing internships that might choose to do projects that are conservation related. So it isn't specifically allocated it could, but we can use what we need out of our general budget.

Veronica: [00:23:12] And what stabilization techniques would it be most useful for you to learn?

Arleyn: [00:23:20] Well I think it, it makes a difference if you're dealing with archaeological material from the Southwest or you're dealing with, the ethnographic collections have such a wide range of materials and sometimes pieces are multimedia, and so that can be a bit challenging. For instance our African collection there's some little figurines that have an incredible amount of bead-work on them and there was one small one where the string on the beading broke. So then you have the dilemma, do you just patch the part that broke, or do you replace all of it before it all falls apart? And you would have to use some other material that's a little stronger, but somewhat similar. So it's a question of keeping things as authentic as possible, versus keeping them from falling apart.

Veronica: [00:24:33] So you said you have some textiles in the collection, right? Do they have any conservation needs, or-
Arleyn: [00:24:39] Well we have a set of Navajo rugs that are in rolled storage with acid free tissue and cloth, then wrapped in plastic to protect them and we have some other items that are gently folded and layered with acid free tissue in drawers or in boxes that need to be taken out periodically and refolded different ways and things like that.

Veronica: [00:25:18] Do you feel you or other museums would benefit from a kind of guidebook and basic stabilization techniques for collections managers?

Arleyn: [00:25:25] I think that would be good for a lot of professionals, especially starting out. Sometimes professionals get a job that's in an area of collections that's not what they previously had experience with. So I think that would be beneficial.

Veronica: [00:25:47] Do you think something else might be more useful like trainings or workshops, videos?

Arleyn: [00:25:52] Well all of the above.

Veronica: [00:25:53] Is there any literature you could recommend related to this topic?

Arleyn: [00:26:06] Well, those National Park Service online resources are very valuable, and I have had students go out and work on projects in parks where they didn't have access to the Internet and we were able to just down the PDF's so that they could look things up while they were there, which is very versatile. There are various other books that can be useful on specific topics that you might need to do further research on, but I think those are the main ones.

Veronica: [00:26:46] Do you consent to the information you have provided being used in my master's thesis?

Arleyn: [00:26:56] Yes.
**Veronica:** [00:26:56] And do you consent to the information you have provided potentially being publicly distributed?

**Arleyn:** [00:27:02] Yes.

**Veronica:** [00:27:03] Great, thank you!

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**Date:** December 4, 2017

*Interview with Stefani Pendergast, Assistant Collections Manager at the Denver Art Museum*

**Veronica:** So could you start by please stating your name and job title?

**Stefani:** My name is Stefani Pendergast, and I am the Assistant Collections Manager at the Denver Art Museum.

**Veronica:** And can you tell me about your background and training, and please include how long you’ve been working in collections?

**Stefani:** [00:00:18] So my background is initially in art conservation. When I was in undergrad I was taking the requisite courses for conservation, so that included studio art, art history and chemistry, and I graduated with my B.F.A. in Pre-Art Conservation from DU\(^22\) in 2008 and then I interned in conservation first at the Denver Art Museum and then I worked with private conservators, pretty much between the years of 2007 to 2010 and I focused my internships on objects, paintings, and textiles, and then when I was unable to get into graduate school for art conservation, that’s when I switched gears over to collections management. So I got my Master’s in Art History from CU Boulder in 2013 and a professional certificate in Museum Studies in 2014, and I’ve been working – so after I was done, or I should say while I was working in conservation I was doing more collections oriented things at the Victoria H. Myhren gallery at

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\(^{22}\) University of Denver
DU, until 2 – August 2011, and then I worked in art shipping and storage at Ship Art Denver, from two thousand – it was like November 2010 to October 2015, and that was kind of collections, in a way, because we were figuring out the best way to have packed art live in a packed state for extended periods of time, but then I started working in the collections management department here at the DAM in August, or no, June 2015. I had also been an on call in the registrars’ office since July 2014

Veronica: Wow

Stefani: [00:02:32] And then I got my current job as Assistant Collections Manager in December 2015.

Veronica: Okay

Stefani: [00:02:39] So, kinda been all over the place, I mean, you know

Veronica: That’s awesome

Stefani: I think all of us have, have to do multiple jobs in order to make ends meet and get experience, so.

Veronica: That’s super cool. So what types of material do you care for, and include what is the most common material in your collection, and the most fragile materials in your collection?

Stefani: [00:03:01] We have just about everything here at the DAM, this museum was originally intended to be a kind of MET of the West, so there’s – we’ve got bronzes, we’ve got paintings, we’ve got a lot of ethnographic material, that’s one of the larger collections, just like for a single department, Native Arts. Uh, but in terms of like sheer quantity of things, the most common material we probably have is works on paper because the mezzanine where we store all of the works on paper has well over 20,000 –
**Veronica:** Wow

**Stefani:** Pieces on it. So that includes photographs, prints, drawings, things like that. But then the second largest collection is ethnographic.

**Veronica:** Okay

**Stefani:** I mean, yeah. All, any and all materials in between – metal, wood, yeah, just everything. Do you want to ask the next one?

**Veronica:** And, some of the most fragile materials?

**Stefani:** [00:04:10] Probably our most fragile collection is the Spanish Colonial. I mean, we do have a few things from antiquity, like, we have some ancient Egyptian wooden things, but not many of them. A lot of the, uh, pre – or, not pre-Columbian – Spanish Colonial pieces, they, they’re very fragile, I mean there are a lot of paintings done on copper, a lot of even the Spanish Colonial frames are pretty, pretty delicate, so yeah, yeah lots of metal and wood, oh and canvas.

**Veronica:** Okay. What preventative conservation methods do you currently engage in, some examples are Integrated Pest Management, light mitigation, art handling training?

**Stefani:** [00:05:01] Yeah, all of the above. Everyone who will have to work directly with the collections has to get art handling training. So that’s everyone in, Exhibitions and Collections Services, Curatorial, sometimes people in Learning and Engagement, depending on what they’re bringing in, and then we have a gallery maintenance program that goes through and cleans the most commonly accessed areas in the museum on a weekly basis, and that just includes like dusting for objects that can be – we use specific tools for that, Hake brushes, Giotto puffers, if that’s okay. And we also just do general cleaning of the platforms and pedestals and, you know, it’s, it’s a combination of being, making sure that the museum is aesthetically pleasing to the
public, but also making sure that we don’t let dust accumulate and therefore pests who get attracted to it. And then IPM is another part of gallery maintenance in particular, we have hundreds of traps, well soon to be quite a few – a lot fewer just because a building closed. But uh, there are traps in every gallery, in every storage area and they are designed to attract clothes moths, we have pheromone traps for clothes moths, but then we have regular sticky traps that have the sweet smelling sticky pad and a food lure on them, specifically for cockroaches and silverfish, but they catch psocids, centipedes, what are the ones with the forks?

**Veronica:** Springtails?

**Stefani:** Springtails! Yeah, so yes, active integrated pest management program, and then yeah, light mitigation, we have UV filters on all of the windows, but there aren’t a lot of windows, and then we do use light meters and we make sure that the lights that we’re using in the galleries are the, are at the proper foot candle amount, depending on what’s in that gallery. Oh, we also have climate control – temperature and humidity.

**Veronica:** Have you done stabilization work before, and if so what kind?

**Stefani:** Yes I have, so that was more in my conservation days. Now, in my current job, I do not engage in that, I mean any kind of stabilization we do is more preventative conservation, building mounts for things so that they won’t deteriorate further, or, you know, make sure that they are going to be in a state where they can be safely handled, and that the object can maintain its form. But yeah, in the past when I was doing conservation, I helped put together a stone sculpture that had broken using conservation grade adhesives, never – and I also did stabilization on quite a few textiles using proper materials in textile conservation, you know, the right kind of cotton threads and cotton fabrics and stuff. Never did any, like, major stabilization with
paintings, that was usually the conservator who would do all of that, I mostly did, like, the cleaning and infills

Veronica: Of paintings?

Stefani: Yeah.

Veronica: So, as – since you don’t do it so much now, is that just due to how the sections work here?

Stefani: Yeah, since we’re such a large institution, that’s a big part of it, you know in smaller museums you see like collections management and registration are one department, but here they’re two completely different departments because we’ve just got, we’re so large that it doesn’t make sense to have certain departments combined, and the museum does have a budget and conservation program, so – and they very much, they specialize in getting things exhibition ready, or if there’s any damage that has occurred to something, they’re the ones who will come in and fix it.

Veronica: Okay, what archival materials do you use in collections storage and where do you order your supplies from?

Stefani: Uh, we use a lot of unbuffered tissue, we use Ethafoam, Tyvek, Blue Board, we also use, like, archival, like, interleaving paper, so it’s not quite tissue, a little bit thicker. Archival boxes for the things that are on the mezzanine, so like Solander boxes and things like that, on occasion we’ll use silicone release paper for things that have kind of like a delicate sticky surface…. I think that covers a lot of it, sometimes abaca tissue for, like, textiles. Oh and that’s, so like for textile wrapping we’ll do washed, unbleached muslin. Oh and Blue Board tubes – sorry I’m just like all over the board.
Veronica: That’s okay

Stefani: [00:10:57] I’m thinking of the different collections and what we use in them. But yeah, everything that will be in close proximity to art, in, ideally we do use archival materials, a lot of Blue Board, lot of Heritage Board. Unfortunately with the move that’s going on right now, uh, we put, like, tissue and high density polyethylene in direct contact with objects – those are both archival, but you know, we’re having to wrap them up in bubble wrap, and then put them into cardboard boxes that are stuffed with newsprint, so that’s a little less ideal, but it’s just due to, like, the sheer scale of what’s going on, and it’s going to be short term.

Veronica: [00:11:44] And where do you primarily order supplies from?

Stefani: Oh, my favorite is Talas, I’ve also used University Products and, uh, Gaylord on occasion. And sometimes, like for Ethafoam, we get that from a local supplier called Universal Packaging.

Veronica: Okay. How big of an issue are damaged pieces in your collection, and what are the most common types of damage?

Stefani: [00:12:25] We actually, in times not like this, where we’re handling hundreds of objects a day, damage is pretty uncommon. We do go through and do inventories. Every fiscal year we try to target a department and do an inventory, sometimes it can take a couple years depending on the collection, like Native Arts took two years to inventory the whole thing, but that’s – usually when things are in permanent storage, they are stable, but like some of the things that have been here for a really long time, they may not have had the best mounts made for them, if at all. So, like with that particular inventory, we were making notes on like ‘minimal rehousing needed’, ‘major rehousing needed,’ just so like, in the future we can make better mounts for
things. But I honestly haven’t seen a lot of damage happen just because a piece was in storage – the last time I saw anything, which, and this is related to the move, but there had been this painted plastic hand that a watch of some sort was on, and the paint from the hand had kind of fused with the Volara, and so when we took the hand off, there was some paint left on the Volara. But, yeah, we try very hard here to get things taken care of when we see them, so like the sixth floor IMLS\textsuperscript{23} grant to re-do the textile storage there, you know, we had started noticing that the tubes that the textiles were rolled on – first of all, a lot of them were not archival, they were cardboard but then, so we put them on archival boards and we also noticed that the particular kind of storage, the tubes were starting to bend because there wasn’t an internal support, so, we got those re-rolled and put a center support through the tubes. So, yeah, so I’m trying to think – the most common types of damage… It mostly happens during handling, and I think that’s pretty universal for any institution, cause, you know-

Veronica: Things breaking?

Stefani: [00:14:52] Things, yeah things break, or you know, you go over a bump too fast on the cart and something topples over or whatever, and I’m not saying that specifically happened, but yeah, a lot of damage can occur when we’re setting up exhibitions, man, you know sometimes people, visitors can engage with art in interesting ways, so.

Veronica: Mhmm. So when you do have a damaged piece, who or what does it affect the most? So, is that more exhibitions, or people coming to research the collections, the public?

Stefani: [00:15:23] I think that it affects the exhibition staff the most because if there is damage, like, pretty much all of the departments within Exhibition and Collections Services, they can report for different things, so, like, if a piece was moved that was on display, like, the

\textsuperscript{23} Institute of Museum and Library Services
installations crew will have to come and move it back and make sure that nothing happened when it moved, but if it is like some sort of manual damage that happened, that’s when conservation will come in and they will stabilize it, and, and fix it, particularly if it is something that needs to be back on display, so, cause we like to keep things on display.

Veronica: [00:16:10] Yeah. When or how do you determine when a conservator needs to be consulted for a piece? This might be a little different since you have conservation staff.

Stefani: Yeah, yeah, I mean they’re consulted with every exhibition, like they will go through and locate the objects in storage and say, like, ‘this is going to need this before it goes on display,’ but like for, for me in collections, like, you know, if something just looks unstable, I’ll give them a call, and that’s happened a lot with the move of course, because we’re handling a large volume of objects. But yeah, basically it’s kind of the point where, it’s like, this does not look stable, I don’t know if I should be handling it.

Veronica: Mhmm. Again-

Stefani: [00:17:11] Oh and then also if we find that it’s damaged and that wasn’t previously documented.

Veronica: Right

Stefani: Another time that we contact them.

Veronica: [00:17:18] Yeah. So since conservation is part of – you have that section within the museum, uh, I think we’ll skip this question, cause ‘what factors do you consider when making this decision,’ I’m assuming you have a budget for that?
Stefani: Yeah, yeah, they have their own budget, and they are also – sometimes we’ll get grants for specific conservation projects, like the Villalpondo\textsuperscript{24} up on Hamilton 2, that was a grant.

Veronica: Okay

Stefani: [00:17:53] But yeah, they have kind of their baseline budget. And Curatorial, they have quite, uh, significant say in what projects conservation takes on in a given year because it’s so related to exhibitions related material, so, but yeah for – the, I don’t know what their budget is for, like, random things that happen. So.

Veronica: Okay. What types of resources do you reference for object care?

Stefani: [00:18:20] Well, pretty much all of us have gone to grad school for something related to collections management. So I got, I’ve got a lot of textbooks that I kept from my grad school days. One of my favorite websites I like to use is PACCIN\textsuperscript{25}, P-A-C-I-N, cause that talks a lot about materials, and, and that doesn’t just necessarily pertain to just packing objects, it’s even like, you know the Volara that we line the shelves with, uh, cause I’ve had interesting experiences with Volara doing bad things to art in the past. So that’s one of my favorite websites. And the C2C\textsuperscript{26} – I’m trying to remember what that acronym stands for – but there’s like a collections care network, and they regularly do webinars.

Veronica: Okay, I think I’ve heard of that – C2C?

Stefani: [00:19:21] Yeah, like the number 2. They do webinars all the time on things. Northern States has some really good – that’s Northern States Conservation Center – they can have good resources and good classes too. And then for pest stuff, my favorite website is museumpests.net.

\textsuperscript{24} Oil painting by Cristóbal de Villalpondo, \textit{The Virgin of Valvanera}, circa 1710. The process for the conservation of this work of art was featured in a mini exhibit in the Hamilton building at the Denver Art Museum during September 24, 2017–Jan 21, 2018.

\textsuperscript{25} Preparation, Art Handling, Collections Care Information Network

\textsuperscript{26} Connecting to Collections Care
Veronica: Anything else specific to stabilization of damaged objects?

Stefani: Most of the time I just consult people, my co-workers. Juhl Wojahn is a very excellent mount maker, and then conservation, they’re always very helpful.

Veronica: [00:20:08] Do you actively take part in professional development?

Stefani: Yes

Veronica: And what sort? Anything related to conservation and preservation of objects?

Stefani: [00:20:18] When I have more time I do like to do the webinars, the C2C webinars, and I’m actually going to miss one tomorrow, I just don’t have time right now, and then I’m also on the boards for CWAM and MPMA\textsuperscript{27}, I’m the Colorado State Rep for that, but we, CWAM has resources.

Veronica: Okay

Stefani: Which are specifically for smaller museums, and we’ve got like a collections care specialist on there, so. And there are kits that can be bought, you know, like environmental monitoring kits. But yeah, I’ve never had to use those personally just because my museum has a big enough budget that it’s not much of an issue, but I do attend the conferences for CWAM and MPMA.

Veronica: [00:21:11] What is your museum’s operating budget? I have that written down. And do you have funding specifically for conservation?

Stefani: Mhmm. Yeah, I just don’t know what their budget is. Every department, before the next fiscal year, has to submit a budget, and sometimes we get the money, sometimes we don’t and it just kind of depends on how things went in the last fiscal year for different revenues.

\textsuperscript{27} Mountain-Plains Museums Association
Veronica: U-huh. What stabilization techniques would it be most useful for you to learn?

Stefani: [00:21:50] I mean I don’t believe in doing anything that involves chemicals, because that is, you can just screw it up too easily if you’re not trained in that, so my stabilization preferences are purely, like, preventative, you know, like I said earlier, making the mounts of things so that they don’t get worse.

Veronica: Cleaning at all?

Stefani: Cleaning, but, like, only a little, very minimal cleaning, like just surface dusting with a hake brush, that’s the level I’m comfortable with going.

Veronica: Okay. So you feel you or other museums would benefit from a kind of guidebook on basic stabilization techniques for collections managers? And do you think that something else might be more useful?

Stefani: [00:22:35] I think that small museums would really benefit from that, you know, particularly ones in more rural areas where they don’t have a lot of museum professionals actually working in the museum, you know there’s been a lot of professionalization of the museum sector in the last 20 years I think, but, you know, there are still museums that haven’t quite been, been reached yet. And you know, maybe they don’t have the budget and it, it can be kind of hard to attract someone with a master’s degree to go work in the middle of nowhere South Dakota for $20,000 a year.

Veronica: Yeah

Stefani: [00:23:11] But yeah, I think that would be very helpful, especially like, you know, there have been some very bad, pseudo conservation things have been undertaken in the past by other collections, I mean, geez, we even, when I was taking some of the antiquities down from the
sixth floor, somebody had glued together this glass spoon, it was an ancient Roman glass spoon, and the glue was all yellow-

Veronica: Oh no

Stefani: [00:23:35] And, like, I guarantee it is not an archival glue, there’s probably no way you can ever, like

Veronica: Undo it?

Stefani: undo it, cause I don’t even know what chemicals you could use to, like, make it soluble again.

Veronica: Yeah

Stefani: So you’ve just got this beautiful ancient thing, and it’s just kinda yellow everywhere.

Veronica: Ohh. Do you think something else might be more useful than a guidebook? Like trainings, or workshops or videos?

Stefani: [00:24:02] I like the idea of, like, real hands-on stuff, trainings and workshops, but the hard thing can be, and I’ve really seen this with CWAM, is just reaching those rural areas, I mean, and it’s even hard like asking people from like Alamosa to come to Denver because that’s a long drive, and it particularly, if they don’t have a budget for professional development like that, they’re, they’re not going to come. The videos might be good, like, I’m envisioning a lot of those YouTube how to videos where you like, zoom in on someone’s hands or something

Veronica: Yeah

Stefani: that could be useful. But it’d definitely need to be very thorough, like, this solvent can only be used with this material, or whatever.
**Veronica:** Is there any literature you could recommend related to this topic?

**Stefani:** [00:24:58] I am sure that there is, but I don’t know off the top of my head, so I will get back to you.

**Veronica:** Kay. And, finally, do you consent to the information you have provided being used in my master’s thesis?

**Stefani:** Yes, although I would like to ask, if possible, if you could send me a rough draft, just so I make sure I didn’t say something I wasn’t supposed to say.

**Veronica:** Sure, and do you consent to the information you have provided potentially being publicly distributed?

**Stefani:** Mhmm.

**Veronica:** Okay

**Stefani:** For the record, yes, I said yes.

**Veronica:** Thank you.

Email follow-up, March, 2018:

**Veronica:** In terms of determining methods for preservation or considering future conservation concerns, do you interact with or interview living artists about their work? Or is that something that other departments do there?

**Stefani:** It is usually Conservation and/or Curatorial who will consult with living artists when it comes to preservation and future conservation concerns. Kate Moomaw would be a really good person to talk to about this if you haven’t yet.
**Veronica:** I also had a clarifying question about what you mentioned to be the most fragile pieces in the collections, the Spanish Colonial objects – what is it that makes them the most fragile? Is this due to their age, the types of materials they are made of, the combination of different materials within single pieces, etc.?

**Stefani:** In most of my experience, a lot of the issues seem to be due to age, but the overall fragility can be due to a combination of all of the issues you mentioned in your question as well. When I get back to the museum next week, I could look into some specific examples if you would like. I have some in mind, but being away from the conservators/Argus makes me nervous to make any comments lest they be ill-informed.
Questionnaire completed by Nancy Odegaard, Conservator, Head of Preservation Division, at the Arizona State Museum

1. Could you tell me about your background and training, including how long you have been working as a conservator?

   I have been working in conservation for about 40 years. I became interested after reading an article and completing an internship in conservation at a major museum. I studied Art history, natural science (biology, geology, and chemistry), languages and studio arts as an undergraduate. I studied conservation, anthropology, and museum studies as a master’s student. I studied heritage and conservation analysis as a doctoral student.

2. What types of objects do you focus on?

   Primarily movable cultural heritage under the label of ethnology and archaeology. However, I sometimes work with fine art, paleontology, human remains, archaeological sites and monuments, as well as rock art.

3. What are some of the most common materials do you use in your practice?

   Adhesives, solvents, reagents, hand tools, and analytical instrumentation.

4. When dealing with a damaged object, at what point should a collections manager contact a conservator?

   When they are unsure or uncomfortable with the situation.
a. What do you recommend if a museum is unable to hire a conservator for a damaged piece?

Establish a relationship with a conservator(s) so that a call can be made to talk things over. This can start with a conservation assessment survey or consultation.

5. Speaking to your area of material focus, what simple stabilization/conservation techniques do you think a collections manager should be capable of/feel comfortable performing?

Handling, moving, storage supports, packing for loan, basic mounts for exhibition, condition reports, basic maintenance.

a. Do you have recommendations for:

1. Suppliers of materials

   The typical ones are Gaylord, University Products, Talas, Light Impressions, Hollinger, Uline.

2. Resources for increasing knowledge of or skills in preservation, stabilization, or conservation methods

   Join AIC, various regional and local museum associations, and attend conferences and meetings. The International Preservation Studies Center in Illinois offers over 75 courses, NCPTT\textsuperscript{87} in

\textsuperscript{87} National Center for Preservation Technology and Training
Louisiana offers workshops, and various conservation regional centers offer workshops. Also NEDCC\textsuperscript{88}.

6. What do you charge for your services?

It depends on the type of service (survey, consultation, treatment, teaching, planning, grant development/review, policy documentation development/review)

7. Is there any literature you could recommend related to this topic?

There is lots. Check out AATA\textsuperscript{89} for related articles.

8. Are there any stabilization techniques that you would be willing to demonstrate (after interviewing collections managers, I may have requests for specific techniques)? What should not be attempted?

Yes, I regularly teach techniques in sessions and workshops at various museum, conservation, and library meetings.

a. If so, would you be willing to have me visually document a demo and publicly distribute the gathered information?

There are several already on line. Check out the Sustainable Heritage Network: \url{http://sustainableheritagenetwork.org/}

9. Do you consent to the information you have provided being used in my Master’s thesis?

Yes

10. Do you consent to the information you have provided being publicly distributed?

Yes

\textsuperscript{88} Northeast Document Conservation Center
\textsuperscript{89} AATA Online: Abstracts of International Conservation Literature is a service of the Getty Conservation Institute.
Date: November 29, 2017

In person interview with Judy Greenfield, Objects Conservator

Veronica: [00:00:00] OK. So if we could just start with you stating your name and job title please?

Judy: [00:00:06] Sure. Judy Greenfield and my job title is Objects Conservator and I am also sole proprietor of my private practice, which is art objects conservation.

Veronica: [00:00:21] Could you tell me about your background and training including how long you've been working as a conservator?

Judy: [00:00:27] I have an undergraduate degree in Anthropology, a minor in Geology. In my undergraduate years I also was on a dig in Egypt and got very interested in the actual objects at that point but knew I didn't want to be out in the field. So that's my undergraduate degree, and then I volunteered at the American Museum of Natural History\(^90\) to, just to explore the whole concept of art conservation. Things were quite different back then. It was very difficult to get actual hands-on training. They were very – just in general people in the museum world were very reluctant to have someone, a novice, work with the objects, so that's really changed, whereas you, now to get into a program you have to have tons -

Veronica: [00:01:25] Right.

Judy: [00:01:26] Many many many hours of hands-on practical work. Okay. And then I decided that I really liked working with archaeological materials and this was back in the late 80s – I’m sorry, no the mid-80s, and there was a program at the University of Durham in Durham, England to get a degree, a diploma, in Archaeological Conservation. And so I applied to that and I, that's

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\(^90\) In New York, NY
where I did my training, and it was called a sandwich course because the first year I worked with the archaeological materials. And that was wonderful. So it was the – it was kind of funny because it was the practical year first, the second year was – and that was up in Edinburgh, Scotland – and the second year was at Durham which is Northern England, and that was the academic year, and then the final year was another placement. And that was very different, that was ethnographic and that was at the Horniman Museum in south of London. And I graduated in 1989 and I've been doing conservation ever since.

Veronica: [00:02:52] What types of objects you focus on?

Judy: [00:02:56] I always say objects conservation is an oxymoron because you specialize in just about every 3D. I particularly like polychrome wood – you can see some of the Katsinas here. I like ethnographic. I of course love archaeological but that's very scarce.

Veronica: [00:03:19] Okay.

Judy: [00:03:19] Yeah, it's just, I just don't see much of it. And if I do, it's usually things that are in a collection, not recently excavated which is a little bit different. Of course I work a lot on ceramics because both they're very collectible and they break. And I do not work on high fired wares anymore because I have discovered it's just too difficult. And there are people that just specialize in high fire wares.

Veronica: [00:03:49] Oh wow.

Judy: [00:03:49] Yeah, high gloss glazes and porcelains and Chinese porcelains etc. Yeah, it's a specialty. It's very, very difficult. So I work on all sorts of things, everything from historical, archaeological when I get a chance, and modern, everything from things that have no so-called market value but have sentimental value. You can't put a price tag on sentimental. So everything
from that to things that are quite valuable. But of course in our field we do not differentiate between something that's very, sort of, pedestrian, mundane and those things that are high end. They're all treated the same in terms of our approach to treatment and ethics.

**Veronica:** [00:04:51] What are some of the most common materials you use in your practice?

**Judy:** [00:04:58] I would say that our, our adhesive which is Acryloid B72 – it’s Ethyl Methacrylate, Methyl Acrylate co-polymer – is our most widely used adhesive. It remains water clear, it's very reversible, it has some give to it, so it tends not to be brittle and, you know, acetone, compared to other solvents, is fairly innocuous. Let's see, I also use synthetic spackling materials quite a bit for fills, I use a variety really of adhesives, B72 being the most commonly used, but there’s, I use natural adhesives as well as synthetic.

**Veronica:** [00:05:56] And that just depends on the type of object?

**Judy:** [00:05:59] Yeah. Mostly. And what else, epoxy, I'll use epoxy putties for reconstructions, and solvents of course. That pretty much covers it. You know, obviously there's going to be certain objects that use specific materials, but that's a general, yeah that's my general sort of corpus of materials and supplies.

**Veronica:** [00:06:37] Okay. When dealing with a damaged object. At what point should a collections manager contact a conservator?

**Judy:** [00:06:45] You know, I'd say it's so easy these days to just take picture and just email the photo if there's any concern.

**Veronica:** [00:06:57] What do you recommend if the museum is unable to hire conservator for a damaged piece?

**Judy:** [00:07:05] I would say that they should look at fundraising sources, granting foundations,
and if not probably just set it aside. If it’s actively deteriorating, then I’d say it’s more imperative to try to get the funding, otherwise something like a broken ceramic can usually stay in that state forever.

Veronica: [00:07:40] What do you charge for your services?

Judy: [00:07:43] Mine is $80 an hour. And I also charge a materials fee and a photography fee. And that amount can vary if I’m doing a bulk treatment. So, in other words a lot of high volume of objects or an object that takes many hours I might provide a quote bulk rate.

Veronica: [00:08:09] Do most clients have photography as part of what they ask of you?

Judy: [00:08:17] We have to photo document our treatments, that’s part of the AIC\textsuperscript{91} guidelines for practice. So that is required, that’s not an option.

Veronica: [00:08:28] Okay. So speaking to your area of material focus what simple stabilization or conservation techniques do you think a collections manager should be capable of or feel comfortable performing, if any?

Judy: [00:08:46] Yeah, that’s a really difficult question. I think there’s probably little that someone who’s not a conservator could do. Again I think it would be appropriate to contact a conservator, send some photos and say what can be done. Yeah, consolidation can get tricky. So I don’t think that there’s really much for an object that someone could do.

Veronica: [00:09:16] Okay. Do you have recommendations for suppliers of materials or resources for increasing knowledge or skills in preservation, stabilization or conservation methods?

Judy: [00:09:28] I certainly have – yeah I can certainly recommend suppliers of materials, and

\textsuperscript{91} American Institute for Conservation of Historic and Artistic Works
then here's where the Campbell Center\textsuperscript{92} comes up because that is located in a now defunct campus. I can't remember used to be some kind of small private college or private school, I can't remember. It's in a remote area it's in sort of the farmlands of western Illinois.

\textbf{Veronica: [00:09:59]} Okay.

\textbf{Judy: [00:09:59]} Not quite near anything, but they offer of wide variety of courses, including things – especially I think when it comes to paper, dealing with paper, artifacts, documents, where you can do basic hinging and humidification and that sort of things and really basic things. I'm not aware of courses that they offer for objects conservation that would be equivalent, it's kind of a different – because we have such a wide variety of materials it would be really hard. But they do have a lot of collections care courses, and that would be a really great resource actually.

\textbf{Veronica: [00:10:46]} Are there any stabilization techniques that you would be willing to demonstrate? And what should not be attempted?

\textbf{Judy: [00:10:59]} I think, I wish I could give you a straight answer, but I think it really depends on the object and what the problem is.

\textbf{Veronica: [00:11:09]} Okay.

\textbf{Judy: [00:11:09]} And I think it should always be in consultation with a conservator. Again it's so easy to just send a photo. There are, there are some treatments that I believe other people can do, you don't have to be a conservator. So, for example, that wooden elephant, if it had a leg that had been broken off and it didn't require doweling then I could certainly recommend someone what could be done to repair it.

\textsuperscript{92} Campbell Center of Mount Carroll, Mount Carroll, Illinois
Veronica: [00:11:40] Okay.

Judy: [00:11:41] Something that would be pretty innocuous. But again, I would not want to sort-of do this by phone, I would want to ask questions about the object and see photos of it as well. I don’t know, did I answer that adequately?

Veronica: [00:12:04] I think so, I mean unless there is anything specific that you can think of that you would demonstrate or that you know, like, 'oh someone definitely shouldn't touch this.'

Judy: [00:12:17] Okay. You know again there's so many different types of objects. I can certainly, I'd like to speak with you at some point about cleaning because I think that is something that someone can get involved with who's a non-conservator.

Veronica: [00:12:31] And that is something that a few collections managers have shown interest in learning, so.

Judy: [00:12:35] Yeah. And that I think could be done. It gets more difficult when you’re talking about stabilization and consolidation because consolidation, which is when you introduce a dilute adhesive in order to, you know, preserve something, so if something's flaking you might add a, you might consolidate that surface. That gets really tricky, and it's also irreversible.

Veronica: [00:13:06] Okay.

Judy: [00:13:06] It's largely irreversible. Yeah, even though in conservation, in the old day they would say, ‘all of our treatment should attempt to be reversible.’ They realize that that's not really, that's not realistic. Now they say, ‘you should try whenever possible to make them re-treatable’.


Judy: [00:13:25] So yeah, I think I'd stay away from stabilization for a non-conservator, and
Veronica: [00:13:34] Okay. So you mentioned cleaning, technique is that something that you would consider allowing me to visually record you doing a demonstration of?

Judy: [00:13:46] Yeah I would, I was going to talk to you about that, I also wrote up some things that I want to talk to you about. But yeah, I think cleaning. You know, so many things do get grimy and again, I think it should be in consultation with a conservator. But say you have a whole batch of similar objects and there aren't any big issues with friable surface or, you know, then I think you can, I think you can probably do some cleaning.

Veronica: [00:14:20] So would something like that be okay for me to include in this type of guidebook and publicly distribute images of step-by-step cleaning?

Judy: [00:14:29] Yeah, yeah, again as long as there are caveats about how a conservator should be involved

Veronica: [00:14:35] Okay.

Judy: [00:14:37] in designing the cleaning process. And yeah, we can talk about all that too, about my concerns about having a non-conservator performing any kind of minor treatment. And cleaning is a treatment, because again it is irreversible. You're removing something,

Veronica: [00:14:59] Right.

Judy: [00:15:00] even if it's dust, it could also be residues from an archaeological vessel. So you know, it has to be done very carefully, with a lot of thought.

Veronica: [00:15:12] So this is I think the question that I added -

Veronica: [00:15:15] So I'm considering presenting my research at the annual meeting for the Colorado-Wyoming Association of Museums, and I'm thinking of recruiting conservators for the workshop component. Is that something that you might be interested in being involved in?

Judy: [00:15:31] I might, I might, it depends, you know, what I'm doing. But yeah.

Veronica: [00:15:35] Okay. And I can touch base with you again at a later time. So you talked about the Campbell Center. Is there any other literature that you could recommend related to this topic that you think I should look at?

Judy: [00:15:51] There's tons, there's just tons out there. Some of – it's interesting but even some of the suppliers, even like Light Impressions, they have some really, it's not necessarily how to do treatments, but they have some really interesting and good information about collections care issues, not so much hands-on. There are probably, I've not researched it, but I imagine there are some webinars out there which I'm not familiar with. Again the Campbell Center is great. And then, yeah if you talk to Britt\(^3\), if you can find out what that organization is.

Veronica: [00:16:33] Okay.

Judy: [00:16:35] Which, whose workshop she attended.

Veronica: [00:16:42] Um and then finally -

Judy: [00:16:43] Oh yeah, yeah, oh sorry. And the other one is, and maybe this is more collections care, but the NPS\(^4\) Handbook online.

Veronica: [00:16:51] Okay, yeah I'm familiar with that.

Judy: [00:16:53] And there's also, uh, CCI – Canadian Conservation Institute. They have a

\(^3\) Britt Scholnick

\(^4\) National Parks Service
whole series of notes, they call them 'the Notes,' those are now available online, and I think…
You know, again though a lot of this is collections care. But some of it may go a little bit more,
might go beyond. And sometimes the line between collections care and conservation is blurred.
It's not such a distinct line.

Veronica: [00:17:24] So finally do you consent to the information you have provided being used
in my master's thesis?

Judy: [00:17:29] Yes I do. I would like to discuss though the cautions and caveats for a non-
conservator doing treatments.

Veronica: [00:17:38] Sure.


Veronica: [00:17:41] Okay. If you would like, we could just talk about that now?

Judy: [00:17:45] Good, okay

Veronica: [00:17:45] While I leave my recording going.

Judy: [00:17:48] Alright here you go, and that's yours.

Veronica: [00:17:50] Thanks.

Judy: [00:17:50] Sure. So I was just doing some thinking about this and – some thinking about
what minor treatments can museum staff perform, if any, and I believe there are some. Again I
can only speak from objects conservation since we’re specialists and that's my frame of
reference. So, before any treatment, even any cleaning is embarked upon, I would suggest that a
conservator be involved. And that could even be done remotely, again. However, if the
conservator is not there in person, directly involved, I think there has to be some recognition that
whatever the outcome is of the treatment can't be the responsibility of the conservator.

Veronica: [00:18:45] Okay.

Judy: [00:18:45] Does that make sense?

Veronica: [00:18:46] Yeah.

Judy: [00:18:47] Okay. And I also think that if a conservator is involved and, even a long
distance consultation that's taking time, I think that there should be a recognition of a stipend, or
some kind of fee just because it's going to take time, and also if you think about it that would be
a project that perhaps a conservator could do, so they are kind of edged out of that. So I think it,
in the museum profession it's important to consider the conservator's time as, you know, time
equals money. You know obviously if it's just a quick consultation and, you know, five minutes
that's different, but.

Veronica: [00:19:32] Right.

Judy: [00:19:32] Yeah.

Veronica: [00:19:33] So if they are only involved that minimally, like a short conversation, is
that where you're saying that conservators shouldn't be responsible for?

Judy: [00:19:45] Yeah I think if the conservator hasn't seen the objects and isn't directly
supervising the treatment, so they're not actually looking over your shoulder, you're not doing the
treatment with them, if the outcome is not what it was hoped for, in other words if things go
awry -

Veronica: [00:20:04] Right.

Judy: [00:20:04] Then I don't think the conservator should be blamed in a way for that because
unless you right there, it's really hard to actually see the object. There should be an understanding that this is something being done from afar.

**Veronica:** [00:20:28] Okay.

**Judy:** [00:20:29] And I just wanted to also point out, again, that many of the treatments are not really reversible, such as cleaning and consolidation, and there's lots of other treatments, you know, again, we strive for reversibility but that's the ideal and even waxing a sculpture, an outdoor sculpture, a bronze sculpture, you can never completely remove all of the wax from the pores of the sculpture. So many things we do are not really reversible completely, and there just needs to be recognition of that as well. My other caution for a non-conservator doing treatments is the health and safety issues, and safety, you know, you're going to, there's a chance you might be working with solvents, and you need to be aware of the need for ventilation and possibly protective gear, the flammability, toxicity, that sort of thing. And also in terms of the objects themselves, they can be hazardous, and many of the older Native American materials, the ethnographic materials, were treated with arsenic, amongst other things like DDT, lead, mercury compounds. So some of these things are really toxic, which is a whole other story I won't go into now. So I think that a non-conservator museum staff person needs to be aware and take necessary precautions, even if they're cleaning because you're disturbing whatever might be on there. So it's something to consider.

**Veronica:** [00:22:24] So is that something that you will test for, or can test for before you do a treatment?

**Judy:** [00:22:28] What I've been doing now is if I am asked to work on something that I suspect could be contaminated, which typically would be Native American skin materials, you know, dresses, moccasins, you name it, then I will ask the institution to have it tested. And that's, that
can run about maybe $150 an object, maybe less. And it's tested with a – oh gosh, let's see if I can remember – the Bruker\textsuperscript{95}? For some reason I always forget, anyway it’s XRF, it's an XRF gun. And so I'm asking now that anything that I suspect like that, I will not treat unless it's been tested and comes out negative. So that's a really important thing to consider, there's glass that contains, it's a uranium glass it's a yellowish glass, greenish-yellow glass. You might find old utensils that incorporate asbestos. So there are things that people need to be aware of could be harmful to one's health.

**Veronica:** [00:24:03] Okay. Yeah, I hadn't thought of, like, historic objects.

**Judy:** [00:24:08] Yeah. Yep, I didn't either until I was exposed. So.

**Veronica:** [00:24:17] Oh man.

**Judy:** [00:24:18] Yeah, yeah. [There is one museum that did a re-housing project…]\textsuperscript{96} and they've tested things and they're just full of, again, arsenic, DDT, lead compounds, it's really bad. Really. Yeah. So that's something that should really be, that's an important, really important part of collections care, too.

**Veronica:** [00:24:44] Right.

**Judy:** [00:24:46] Okay. And then I also wanted to note that it is possible that if museum staff is working directly with a conservator on a treatment, that sometimes they can go beyond what they might be able to do on their own.

**Veronica:** [00:25:04] Okay.

**Judy:** [00:25:05] So, for example, I had to clean a model building made of precious metals and

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\textsuperscript{95} Bruker Handheld X-ray fluorescent (XRF) analyzers have the capability to provide non-destructive elemental analysis of objects.

\textsuperscript{96} This sentence was re-worded to remove certain names for the purposes of privacy.
gems. And so I pulled in someone who was on the collections staff at the time and together we cleaned it, and we were side by side and cleaning together. And so I, you know, she probably did more than she would have if I said, 'here's what you can do.' And sometimes it is possible when you're working with directly – and that's going to depend on the conservator. I think in the West we tend to be, we have more of that pioneer spirit. Maybe it's because the distances can be very great between things, and you have museums in very small towns in Wyoming and in Colorado and so I think people are a little bit more self-sufficient here than they would be perhaps on the coasts.

Veronica: [00:26:10] Okay.

Judy: [00:26:10] It's kind of interesting, there's a sort of self-reliance. So I tend to be a little bit practical, you know, I realize that these little museums don't have the money. So, I might allow a treatment to go a little further with someone in a museum like that then someone else might.

Veronica: [00:26:35] Right.

Judy: [00:26:38] Okay so now we're on the cleaning section, because I do believe that non-conservators can clean. Again, I think it's appropriate to contact the conservator and say, 'can this be cleaned? How can it be cleaned?' And they will probably ask a lot of questions and then also want to see photos. Because when you clean something, you are removing something from that object, and in conservation we always want to preserve information that is relevant to that artifact. It's very important, especially for archaeological materials where you might get residues or clues as to how the object was used in the past.

Veronica: [00:27:38] Okay.
Interview with Jennifer Parson, Paper Conservator and owner/proprietor of Kala Conservation

Veronica: If we could start with you please stating your name and job title, or area of focus?

Jennifer: My name is Jennifer Parson, I’m owner and proprietor of Kala Conservation, I’m in private practice and I’m a paper conservator.

Veronica: Could you tell me about your background and training, including how long you’ve been working as a conservator?

Jennifer: Well, as far as my background I started out as an Art History major as an undergrad, and then became interested in Conservation my senior year when I went to the SFMOMA and visited their conservation lab and didn’t even know about conservation until then so I got really interested and then started working there as an intern for several years while fulfilling all the prerequisites for graduate school, for conservation – which are many – so it does take a couple years at least, and so then I went to NYU, so that’s another 3 years of school, plus a 4th year apprenticeship, and then, so I graduated in 2009 and I’ve been working in various museums on the west coast since then. And then I’ve been in private practice for a year and a half.

Veronica: What types of objects do you focus on?

Jennifer: Anything on paper – prints, drawings, watercolors, various manuscripts, and specifically I also have an additional specialization in Asian art.

Veronica: What are some of the most common materials you use in your practice?

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97 San Francisco Museum of Modern Art, San Francisco, CA
Jennifer: Japanese paper and wheat starch paste are the very, most essential, basic materials. I use them for mending, lining, yeah, lots of things. And that’s kind of your basic conservation technique, so.

Veronica: And is that specific to paper conservation?

Jennifer: Yes

Veronica: [00:02:18] Okay. When dealing with a damaged object, at what point should a collections manager contact a conservator?

Jennifer: Well, I guess if it’s something that looks like it’s going to progress, then it’s something you should do immediately. Like if an object got wet for example, something spilled on it, the sooner you deal with it, the better. If something’s torn then, you know, sooner also is better in that situation and avoiding any kind of handling of the object to make, which could make it worse, I would say.

Veronica: [00:03:10] What do you recommend if the museum is unable to hire a conservator for a damaged piece?

Jennifer: Best recommendation is good housing. So, if you can put –say it’s a damaged art on paper, is the only thing I can speak to –putting it in some kind of enclosure that would prevent any further handling, either a box, archival box or a folder or some kind of encapsulation in Mylar or something like that.

Veronica: [00:03:44] What do you charge for your services?

Jennifer: Well it’s based on how much time it’s going to take me to do it. So, I always start with a meeting with the client, they talk about – we talk about what the expectations are for conservation treatment, whether that– like, basically how far we want to take it, and then I write
up a treatment proposal and with a cost estimate, and then I go from there. So it varies from project to project, so I’m hesitant to say exactly how much.

**Veronica:** [00:04:29] So, it’s not so much you charge for the amount of time so much as what is required to-

**Jennifer:** Well, that is – I mean those are intertwined.

**Veronica:** Okay

**Jennifer:** So, say something like this piece that has some staining and has a tear, if you just wanted the tear repaired, then that would be just one option, if you wanted to go further for aesthetic betterment, then that would be an additional charge, because it takes additional time. So, often I’ll give a client, like, several different options based on what they can afford, and value of the piece, weighing that as well, so, that’s important more to collectors than – other private clients might just want for sentimental reasons, go ahead, cause it’s an object, so..

**Veronica:** [00:05:24] Yeah. Speaking to your area of material focus, what simple stabilization or conservation techniques (if any) do you think a collections manager should be capable of, or feel comfortable performing?

**Jennifer:** [00:05:40] I think with proper training and some guidelines, mending a tear could be very possible to learn and that’s something that I think is good to address early, as you come across it because it can worsen if you, you know, repeated handling or exhibition and that kind of stuff. Some flattening, maybe, but that’s a little trickier. Although surface cleaning is something I could also teach someone. But beyond that, I think consulting a conservator is the smartest thing.

**Veronica:** Do you have recommendations for suppliers of materials, or resources for increasing knowledge or skills in preservation, stabilization, or conservation methods?
Jennifer: [00:06:40] For suppliers of materials, I get a lot of things, most of my things, from Talas – T.A.L.A.S. – University Products is another one, and Hollinger has a lot of archival boxes and things like that. But the best is Talas, for all kinds of adhesives and papers and all kinds of things, they specialize in it. As far as resources, I mentioned this book – The Care of Prints and Drawings, by Margaret Holben Ellis – I think that would be a good thing to have for any collections manager to deal with paper, it’s a really nice, basic guideline. The American Institute of Conservation, their website has a lot of good resources as well, and they have a journal, which is probably more technical than a collection manager would need, but you might be able to find some answers in them.

Veronica: Are there any stabilization techniques that you would be willing to demonstrate -

Jennifer: Mhmm

Veronica: And so, would you consider allowing me to visually record (photograph or video record) a demonstration?

Jennifer: [00:08:03] Yeah, there’s, like I mentioned, for a tear repair, I think would be okay to demonstrate and some basic surface cleaning and um, we can – Flattening, I’m not really prepared to do that today, but it’s something I could potentially do in the future.

Veronica: [00:08:31] And would you be okay with me potentially publicly distributing such a demonstration?

Jennifer: Yes, but with kind of a caveat – I don’t want anybody to think that they can just try this at home, without having some understanding of, you know, cause not a lot – not all two papers are alike and knowing when you can attempt it and when not to is kind of an important thing, and you know.
Veronica: Okay, is there anything specific that you want to point out that should not be attempted?

Jennifer: [00:09:18] Well I would say particularly papers are really darkened and brittle, trying to mend it or surface clean, I wouldn’t attempt. When it’s at that stage then you should talk to a conservator, you run risk of creating what are called tide lines when you introduce moisture to something that’s got a lot of discoloration, you can cause that discoloration to move and make an even worse looking stain. And I’ve seen that happen, so. Yeah, and also on certain kinds of papers, like really, other kinds of fragile papers, like tracing papers, very thin papers, I wouldn't attempt either.

Veronica: [00:10:18]: So I am considering presenting my research and findings at the annual meeting for the Colorado-Wyoming Association of Museums conference, and I’m thinking about trying to recruit conservators for a potential workshop, is that something that you might be interested in doing?

Jennifer: Yeah I would, absolutely.

Veronica: [00:10:41] I’m not sure where that will go yet, but, trying to get an idea of who might be interested. So is there any additional literature that you could recommend related to the topic?

Jennifer: I think that was the best one, there’s also another, I can’t remember the name of the author, but it’s Curatorial Care of Prints and Drawings, it’s another one for paper – there’s, I mean, this can be useful also for collections managers, Identification of Prints by Bamber Gascoigne, that one kind of has, takes you through how to identify the difference between

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98 Could not determine what resource Jennifer was referring to here
99 How to Identify Prints, by Bamber Gascoigne
etching and graving, lithograph, different photomechanical processes and stuff, and knowing your media is, I think pretty important, when it comes to paper, so.

Veronica: Okay. And then finally, do you consent to the information you have provided being used in my master’s thesis?

Jennifer: Yes

Veronica: And do you consent to the information you have provided being publicly distributed?

Jennifer: Yes

Veronica: Okay great, thank you.

Date: December 8, 2017

Interview with Kate Moomaw, Associate Conservator of Modern and Contemporary Art at the Denver Art Museum

Veronica: If you could start by please stating your name and job title, and area of focus?

Kate: Sure, my name is Kate Moomaw, I’m the Associate Conservator of Modern and Contemporary Art at the Denver Art Museum and my focus is modern and contemporary objects and variable media.

Veronica: [00:00:22] Could you tell me about your background and training, including how long you’ve been working as a conservator?

Kate: Sure, so I trained at the Conservation Center at New York University, and I trained in objects, with a focus on modern materials, and graduated in 2007, so I’ve been in the field 10 years. I’ve been at the Denver Art Museum for 6 years.

Veronica: [00:00:54] What types of objects do you focus on currently?
Kate: So at the DAM I am responsible for outdoor sculpture, so that’s bronze and painted metals, fiberglass, that kind of thing, and then I also work on all the modern and contemporary objects from the Modern and Contemporary Collection, and also the Architecture, Design and Graphics Collection, and I also work with Native Arts occasionally, with some of their contemporary works. And then, kind of my third area would be, what we call variable media, which is artworks that have the propensity to change over time, so it’s kind of a broad category, but also it includes, like, electronic media, so audio, video, software based artworks, digital, born digital artworks, things along those lines. Also, things like, you know, light-based artworks, where you maybe have to change out a component, or other electronic based artworks of other nature. And installation artworks that might change each time you install them, based on the space that you’re using, or something along those lines. That’s kind of, that’s variable media.

Veronica: And that would be all stuff that is part of the Denver Art Museum collection?

Kate: Mhmm, yeah I work exclusively for the DAM, I don’t do any private practice at this time.

Veronica: [00:02:27] What are some of the most common materials you use in your practice?

Kate: So with objects conservation, it’s pretty typical kinds of objects conservation materials, adhesives, solvents, surfactants for cleaning, let’s see what else… Paints for in-painting, coatings, dry cleaning materials – like erasers and things of that nature, brushes and, yeah it’s pretty typical kinds of things, you know, with water materials you might be using a different type of adhesive or something, like plastics you really have to avoid all kinds of solvents, so we use more, like, water-based kinds of materials. And you know, kinds of wrapping materials too, come into play for storage and that kind of thing, though a lot of that is handled by our collections management department. And then, yeah with electronic media, it’s a totally different ballgame –
Veronica: Yeah

Kate: [00:03:45] And that’s you know, mainly working with computers a lot, and different pieces of software. We do have some video equipment that we’ve more recently acquired, so we can play back video, and then various, like, monitoring equipment for video, and then we do have a couple pieces of hardware that we work with, with born digital materials. We have what’s called a read-write blocker, which is something that you put in between your computer and the device that you’re trying to get information from, and it prevents your computer from writing anything back to the original device, like, the original –if you have like a thumb drive or something that came from an artist and you want to make sure that you’re not changing that in the process of transferring the files off of that onto the computer. And then we have a very specialized device for floppy disks called a Kryoflux, K-R-Y-O-F-L-U-X, and it’s a device specifically designed to read floppy disks very carefully and slowly and capture the data off them, and determine if there’s a bad sector or something, yeah that kind of thing. So, it creates kind of a raw bit-for-bit copy of the floppy disk for preservation

Veronica: So is that one of the primary things that you do with digital media, is like, creating backups and copies of things, or?

Kate: [00:05:19] Yeah that’s a really important part of it. So yeah, we’re actually doing a big project right now, we’ve got a grant from IMLS\(^1\) to get all of the content of our electronic media artworks into our digital repository, so that means, like for video, we are taking video tapes and getting them digitized and then importing those files into the repository. And then for – we have a lot of born digital materials that came to us on things like flash drives, external hard drives, floppy disks and optical disks, like CD-ROMs and things like that, so in those cases

\(^1\) Institute of Museum and Library Services
we’re taking the content off of those, what’s called removable media, and then getting them into our repository. And then once they’re in the repository, they’re backed up to two different locations, so we have three copies of everything that’s in the repository. And when those files are ingested into the repository, they’re processed through a couple different pieces of software. Sometimes we do disk imaging, which means that we’re creating that bit-for-bit copy of the entire drive, or like removable media item, so even the blank parts of that device will be copied into a disk image, and then that disk image will be processed through a piece of software called Archivematica, and that does things, like it does virus checks on the content, so makes sure that you’re not accidentally importing any viruses into your repository. And it also creates a bunch of metadata about the files, it does file format identification, it creates what’s called a checksum, which is a really important item for digital preservation, so, let’s see if I can -

**Veronica:** Checksum?

**Kate:** [00:07:41] Checksum, yeah, it’s one word – C-H-E-C-K-S-U-M – so it’s basically, an algorithm creates this code that corresponds to the file, and if the file ever changes at all, like even if one bit of the file changes, this code will be completely different if you run the algorithm again. So it’s a way of monitoring whether the data has changed or not. So, you create a checksum when you ingest a file, and you keep that checksum recorded somewhere. It’s just, it’s a – the checksum is just a list of numbers and letters, I forget how many digits it is, but.

**Veronica:** It’s kind of like a condition report, like, it checks it and you can see what it was and if it’s changed?

**Kate:** Yeah, exactly.

**Veronica:** Okay
**Kate**: Yeah it is, that’s a good way to think about it.

**Veronica**: That’s cool.

**Kate**: [00:08:34] Yeah, so you can put this little code anywhere. You can just copy it into your collection management system, into the record, and then you know, 10 years later you want to check to see if this file has changed, you can just run that algorithm again and it should give you the exact same code, and then you know with a very high degree of certainty that it hasn’t changed, so.

**Veronica**: [00:08:58] And just to clarify – so digital born media, is, does that just mean artwork that is created digitally?

**Kate**: Mhmm

**Veronica**: Okay, in a digital format?

**Kate**: Yeah, so like a bitmap or something, or, I mean a lot of video is created now just as a digital file to begin with.

**Veronica**: When –

**Kate**: Sorry, that’s a very long entry

**Veronica**: [00:09:28] No, that’s okay, it’s good information! Otherwise this would go really fast. So, I know you work in a museum that has conservation staff and collections management staff, but when dealing with a damaged object, at what point do you suggest a collections manager should contact a conservator?

**Kate**: Yeah, I think here we have the luxury of, that we’re onsite so if a collection manager finds a damaged object, pretty much every time they contact us. You know, for a museum that doesn’t
have conservators on staff, I would say if it seems like the damaged object is highly unstable, you know, actively just continuing to fall apart, then that would definitely be a time – something of value, an important object – that that would be the time that I would recommend definitely contacting a conservator.

**Veronica:** [00:10:48] Do you ever get anyone calling for advice here, that doesn’t work at the Denver Art museum? Like collections managers from other museums? Just out of curiosity.

**Kate:** No, I don’t think I’ve had that too much. We get people calling about their, sort-of, private collections, but usually they’re looking to hire a conservator to work on the collection. Yeah, I would have, I could ask some of my colleagues about that, if they’ve ever, but that’s not something I remember hearing about.

**Veronica:** [00:11:28] Okay. What would you recommend if a museum is unable to hire a conservator for a damaged piece? If you can speak to that.

**Kate:** I would say, you know, document the piece, like right after the damage occurs, you know, try not to move anything immediately, try to get some photos of it, I think in most cases you probably will have to move it to a secure location. You know, I would just try to keep track of all the parts. There’s a technique of creating a grid if it’s, like, something that’s completely fallen and shattered into a thousand pieces, you know, if it’s a really critical thing that you want to be able to get back together, this grid technique can help. You can kind of grid off the area and then maybe bag separately the pieces that are in each portion of the grid so that you keep track of, like, where the pieces went to and when the damage occurred. That can help somebody reconstruct it, in the future. You know, I think just trying to get all the pieces into a stable storage environment, trying not to handle them during – you know, minimize handling as much as you can. I’d generally put things that are not stable onto fixed shelving, rather than a compactor, you
know, so they’re not getting vibrated or moved. Yeah, I mean I guess it is going to depend a lot on what the damage is.

Veronica: Right

Kate: But I think those are some, some kind of general thoughts. Is that helpful?

Veronica: Yeah.

Kate: Yeah, I mean I think, you know, trying not to have materials in contact with the damaged areas when possible, but still, I mean if something is, like, maybe partially broken or something like that, figuring out some way to prop it so that there’s no stress on the damaged area.

Veronica: [00:14:08] I think we’ll skip [question #] 5 because you work for the museum, so charge for your services, just, you work with the people here, so we’ll go on to number 6. So speaking to your area of material focus, what simple stabilization or conservation techniques, if any, do you think a collections manager should be capable of or feel comfortable performing?

Kate: [00:14:32] Yeah, I mean one thing that I mentioned to you by email is I think vacuuming is a really important skill, just keeping dust off of objects really is helpful for their preservation. I mean I think creating storage mounts is very important so that you can, if something is unstable or fragile, that you can do something externally to keep further damage from occurring. Numbering is fairly an important technique, but that’s pretty standard for collection managers to be handling that. And this is probably where I think someone who’s worked in private practice and has a little bit more experience might have more to say in terms of what they might, how far they might go in terms of teaching other stabilization techniques. And it probably also depends on the collection, the kinds of problems you’re seeing.

Veronica: Right, like with digital media I’m not sure what really –
Kate: [00:15:41] Well yeah, I mean, thinking back to digital media…That’s a field where it’s not very codified in terms of who’s responsible for what, and there are definitely places that have digital media collections that don’t have a media conservator because there’s really not very many media conservators around. Museums haven’t reached the point where they’re willing to hire full-time media conservators, they’re kind of doing sort-of what we’re doing where maybe somebody else in the conservation department is kind of learning, and then maybe you hire somebody, like with our grant we were able to hire a media conservator for a year and a half, it’s kind of relying on soft money. But collection managers have also, and registrars and curators, have also gotten involved and are learning some of these skills.

Veronica: Okay

Kate: [00:16:40] So, I would say, yeah… And here, the collection management department has been somewhat involved, it’s kind of dropped off as we’ve kind of built capacity in the conservation department, but I think that collection managers could definitely learn, you know, basic skills about importing media into a repository, using a read-write blocker, you know doing some of the basics because I think in fact it’s important because those storage media, like CD-ROMs are so vulnerable, they’re not going to last very long, you know, five, ten years, so it’s pretty critical to get the files off of those and into a more stable environment. Yeah it’s, you know, I think with objects and paintings and things like that, there’s often the kind of a concept of deny and neglect where if you just put something in a stable environment and don’t touch it, it’s probably better for it, but with digital files, they need to be processed and they need to be documented, because, you know, it’s not just the storage media, but also the file format – obsolescence and things like that, you need to be monitoring what kind of file formats you have in your collection in case they’re no longer supported, in which case you need to think about
migrating to a different format. But I think a lot of the basics about setting up a digital repository and getting materials into it, I think that collection managers could learn to do that as well as a conservator in some cases, or at least with the basics. I think it’s treatment of those works gets very complicated and you often, you’re working with computer scientists and outside experts, even conservator isn’t, I don’t think anyone is ever going to be able to have the full skill set to be able to deal with every kind of issue that comes up. So, it’s like, you know, with outdoor sculpture too, we often work with outside experts to do more specialized tasks like repainting and things like that, you want to work with somebody who, that’s what they do with all their time, you know, is paint, and they have really good skills in those areas, but you kind of need a conservator, or you know, a custodian of the artwork to direct that process and make sure that, you know, we’re honoring the artists’ intent and those kinds of things, so. It’s a little bit rambling, but I do think there’s definitely a big role that collection managers could play with electronic media

**Veronica:** Mostly preventative?

**Kate:** Yeah

**Veronica:** Not with any damage or loss of information, it sounds like?

**Kate:** [00:19:54] Yeah, I would say, I mean that’s a lot of what it is. I mean that’s basically what we’re doing now; we’re not doing interventions really. That’s a part of our project now – we’re trying to figure out what are the needs, like what things do need further action.

So I’m trying to think what’s the comparison… I guess it’s sort of like, yeah putting things in storage and getting them stabilized in a storage facility, creating storage mounts and controlling that environment is maybe like the analog.
**Veronica:** [00:20:43] Do you have recommendations for suppliers of materials, or resources for increasing skills in preservation, stabilization or conservation methods?

**Kate:** [00:20:58] Yes, so, suppliers… For your general conservation supplies, Talas is a great resource, there’s another one called Conservation Resources, I believe that’s the right name, Gaylord and University Products have some good housing supplies. There’s not really, for digital preservation it’s a little bit more scattered, I mean we purchase, like, storage cases for CD-ROMs and things like that from places like Gaylord and University Products. Yeah, I mean we do actually also preserve the original objects even though we’re taking the files or the content off of them, we’re still trying to preserve those for as long as we can, so rehousing and storage of those physical objects is also important and definitely falls within the realm of collection management too, I would say. Yeah. I’m sure you’ve already got all those suppliers down already, but I’m trying to think if there’s any others… Oh, Kremer – K-R-E-M-E-R – they might have, every once in a while they might be a resource.

**Veronica:** Okay

**Kate:** [00:22:45] Yeah, I think those are probably the main ones.

**Veronica:** Okay

**Kate:** Resources – AIC has some good resources on the website called Caring for your Treasures I think is the – so they have some basic recommendations for storage and handling and, you know, preventative conservation. There’s also the Conservation OnLine website, CoOL – that’s probably getting more into more complex conservation, but it’s not, I mean, it’s pretty wide-ranging. PACCIN I think is a great resource– AIC now has a collections care network\textsuperscript{101} as well.

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\textsuperscript{101} Connecting to Collections Care (C2C)
Veronica: Okay

Kate: [00:23:51] Yeah, it might be interesting for you to talk to somebody who’s involved with that, cause they’re doing the exact same sorts of thinking about collection care and who’s responsible and where the overlaps are

Veronica: Okay, cool

Kate: Yeah, you should definitely look into that, cause they might have some online resources as well.

Veronica: Okay

Kate: That are good.

Veronica: Definitely

Kate: Something to look up.

Veronica: So are there any stabilization techniques that you would be willing to demonstrate?

Kate: [00:24:27] You know, the main thing that I thought of as a potential demo, that would be vacuuming and different kinds of techniques for vacuuming. For digital…

Veronica: Might be harder to -

Kate: Yeah

Veronica: demonstrate?

Kate: I mean, using the read-write blocker could be, could be something, or at least, you know -

Veronica: Yeah, that would be interesting.
Kate: Just showing what it is and how it works and, I might be able to set you up with, Eddy, who’s our media conservator to do a little demo of that.

Veronica: Okay.

Kate: So it’s a, you know, it’s a nice piece of knowledge to have if you do get confronted with working with a digital collection.

Veronica: Yeah, that would be interesting

Kate: [00:25:25] Cause it kind of covers you, you know, makes sure that you’re not doing any harm. He might, you know, I can talk to him and see if he might have time to show you disk imaging a little bit too.

Veronica: Okay

Kate: [00:25:44] You know, at least show some of the tools that we work with that it might be good for a collection manager to be aware of.

Veronica: Yeah, you know it could be interesting to even, you know if, if not a demo, then maybe taking pictures of some of the things that you use, like having images of what these things even look like could be interesting.

Kate: Yeah

Veronica: Like, I’m sure I could find that stuff online too, but.

Kate: [00:26:13] I think we could probably do that, yeah. Do you mind if I take this [questionnaire] I can just put a little note on it?

Veronica: Yeah, you can have that for sure
**Kate:** I’ll put a note to ask Eddy. He might even already have something, cause he blogs quite a bit, I know he blogged about an internship he did with us at one point, so.

**Veronica:** [00:26:55] So if we did do vacuuming or something other than the digital stuff, would you consider allowing me to visually record, so photograph or video record a demonstration?

**Kate:** I think we can probably figure that out.

**Veronica:** Okay

**Kate:** Yeah, I’ll also see if our textile conservator could participate so maybe we could do a couple different textiles.

**Veronica:** Okay, yeah that would be really cool.

**Kate:** And vacuuming.

**Veronica:** [00:27:24] And then would you be okay with me potentially publically distributing whatever I recorded?

**Kate:** You know, I should probably ask my boss about that, I think it would probably be fine, but just want to make sure.

**Veronica:** [00:27:39] Just to make sure, yeah. And yeah, at this stage I’m not sure where this will end up. I’d like to, you know, publically distribute what I end up doing cause I think that would be way more useful, but yeah, I’m sure exactly what I’ll do yet, since it’s just in the, like, thesis stage right now.

**Kate:** When would you need these to be done by?

**Veronica:** So I am going out of town for the holidays on December 23 and then I’ll be back January 10, and then I’m around all next semester, but before – preferably before February.
Kate: Okay, I think, yeah.

Veronica: And I can come out, like I’m here Mondays and Fridays but I’m in an extra day two weeks from now, and then I have Wednesdays off, so I don’t mind coming down outside of when I’m actually at the art museum.

Kate: Okay. Yeah we can try to set something up before Christmas.

Veronica: Okay

Kate: But January I think would be a really good bet if that doesn’t work out, just cause -

Veronica: Yeah, yeah.

Kate: Things are kind of crazy, but, as you’re aware.

Veronica: Okay, well we can check in then or talk about dates, you know, after.

Kate: Yeah, let me, let me talk to Allison, the textile conservator, and my boss and just make sure that this is all kosher and what they think about timing, and then I can get back to you.

Veronica: Okay, sounds good. And then do you have anything you think should definitely not be attempted by a collections manager, that you want to point out?

Kate: So in the electronic media realm I would say not to play back video tapes, I would go to somebody who’s an expert in video, it even doesn’t have to be a conservator necessarily, but like a post-production facility, someone who’s like a professional, works with video professionally and maybe someone who’s been in the business for a while and is used to working with tapes cause it’s kind of reaching that point where, I’m sure there are some video professionals out there that have never really worked with tapes at this point.

Veronica: Yeah
Kate: [00:30:25] So yeah I’d be really careful with anything – and also, things like floppy disks, I’d just be really careful with those, cause they can, they’re older and they can be in bad condition and they can hurt your equipment and your equipment can hurt them, so. But I would say things like handling hard drives and optical disks is safer, but I would use that read-write blocker. With optical disks it’s not an issue cause you can’t, you, it takes a lot of effort to actually write back to them, but for hard drives and thumb drives and things like that you’d want to use the read-write blocker.

Not to be attempted – I mean I would generally say I wouldn’t apply an adhesive to anything without knowing what you’re doing. I wouldn’t use solvent or water-based cleaning methods, unless, I mean, you know for outdoor sculpture, you can probably, a collection manager could probably implement a maintenance program, maybe. I mean maybe get some advice from a conservator to start with, but then from there, in that case cleaning with water is generally pretty safe, I mean those things are out in the rain all the time. Yeah I would, yeah I think I would stick to more, using mounts and things to try to stabilize things rather than trying to actually do a repair yourself. I know that one of the topics that collection managers were interested in was like stabilizing beadwork and textiles and things like that –there might be, there might be some techniques that I would go to a textile conservator to ask about that, you know, methods where you’re doing something reversible and is more mechanical, might be into something that could be taught more. But I, yeah I would stay away from adhesives except for, you know, numbering is the one exception. Does that make sense? I hope so.

Veronica: [00:33:28] Yeah, so I’m considering presenting some of my findings and research at the CWAM conference next spring – Colorado-Wyoming Association of Museums. I’m thinking about trying to recruit some conservators to do a workshop component in which they teach a
basic stabilization technique, so is that something that you might be interested in participating in?

Kate: No, I think next spring is probably not going to be a good time for me.

Veronica: Okay

Kate: Just cause I’ve got a bunch of conferences I’m going to already.

Veronica: Okay

Kate: But hopefully someone like Judy might be able to do something.

Veronica: Yeah, she said maybe.

Kate: [00:34:12] Okay. I can also try to find some more conservators to put you in touch with if you’re having trouble finding somebody.

Veronica: Okay

Kate: Have you– you haven’t talked with Julie Parker have you?

Veronica: No

Kate: She’s, I think she would be possibly excited about something like that too.

Veronica: Okay

Kate: I can give you her contact info.

Veronica: And what does she specialize in?

Kate: She’s objects as well, but she’s pretty – she’s done a little bit of textiles, and a little bit of painting, so she’s pretty– and paper too, I think, in her pre-program experience.
Veronica: [00:34:57] Okay, yeah that would be cool. So is there any additional literature that you could recommend related to this topic?

Kate: I think the main resource might be the Collections Care Network -

Veronica: Okay

Kate: with AIC. And hopefully they have some publications, I’m not quite sure. I’ll make a note to send that, send you a link for that too.

Veronica: [00:35:28] And do you consent to the information that you have provided today being used in my master’s thesis?

Kate: Yes, definitely. That should be fine.

Veronica: And, additionally, do you consent to the information you have provided today, being publicly distributed, potentially?

Kate: Yeah, I think so

Veronica: And I can send you before

Kate: Yeah, it would be good to review it, yeah.

Veronica: Okay. Alright, thank you.

Email follow-up, Mach, 2018:

Veronica: I will be presenting at CWAM in April about some of the research I have done for my thesis, and I am considering showing one or two of the video demos as part of that presentation. Is that something that you all would be okay with? At this point, I have not decided which of the videos to show. Additionally […] I am planning to continue exploring how to make the information I have gathered useful and available to others, and one of the ways I hope to do this
is by creating a website that pulls together the collections care information I have gathered. […] Would you all be okay with me including the demos you all provided in that format?

**Kate:** It sounds like it should be fine for you to share these videos, as long as they are not for commercial purposes. I think the formats are fine – though if not too much of a hardship, would you mind sending us the final videos you propose using so we can have a quick look? I’m sure they’ll be fine but that way we avoid any potential surprises.

**Date:** December 24, 2017

**Questionnaire completed by Beth Heller, Paper Conservator**

1. Could you tell me about your background and training, including how long you have been working as a conservator?

   I have BFA in Art Education, and trained to become a Registered Art Therapist and Licensed Marriage and Family Therapist with an MA in Behavioral Science. I ended that career and went back and got my chemistry prerequisites and pre-program experiences in 2001, and went back to school and got an MSLIS\(^{102}\) with certification in library and archives conservation, a 3 year graduate program which included 2 summer internships and a year-long internship, followed by a year-long Mellon Fellowship in fine art conservation, specializing in works of art on paper and historic documents. Following the fellowship, I worked for another conservator for 3 years learning about private practice work. After that, I worked as the preservation librarian and then director of a small special library with museum and archives in addition to rare and circulating books. I’ve been in private practice for 7 years.

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\(^{102}\) Master of Science in Library and Information Science
2. What types of objects do you focus on?

Works of art on paper, historic documents, family treasures, objects such as paper lanterns or fans, architectural models - anything that is made of paper, excluding books, although I do sometimes work with scrapbooks and photo albums.

3. What are some of the most common materials you use in your practice?

Various thicknesses and types of Japanese papers, wheat starch paste, various proteinaceous and polymer adhesives, water adjusted with a variety of acids and bases, Tek-Wipe, Gore-Tex, cellulose gels.

4. When dealing with a damaged object, at what point should a collections manager contact a conservator?

When an item is vulnerable to further damage if left untreated. Many conservators will give advice about options for stabilization and when/if it is necessary. It is usually pretty easy to get a fast consult before deciding which course of action is best.

a. What do you recommend if a museum is unable to hire a conservator for a damaged piece?

Phased conservation treatment is a method of evaluation where an item or collection falls in a matrix of high/low use, high/low value, severe to no damage. A first approach would include evaluation, then perhaps improving the storage environment (temperature, relative humidity, pest control, security, etc.) and then improving the housing with appropriate archival, acid-free materials - supports, enclosures, handling.

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103 Tek-Wipe and Gore-Tex are materials used in paper conservation. As described by Kaslyne O’Connor in “TEK-Wiping Out the Competition: The Ideal Reusable Absorbent Material,” Tek-Wipe can be used as a support or as an absorbent material in conservation.
methods. After ensuring protection and preservation, the item can be evaluated for the ability to make a digital surrogate, by scanning, photograph, 3-D reproduction or printing. The digital surrogate can be displayed instead of the original. Some conservation treatment might be necessary to allow the item to be handled during scanning. After those steps, there are a variety of fundraising methods that might be used to raise the money for treatment, including adopt-an-object campaigns, asking a private donor, or applying for a grant.

5. Speaking to your area of material focus, what simple stabilization or conservation techniques do you think a collections manager should be capable of, or feel comfortable performing?

   a. Do you have recommendations for:

      1. Suppliers of materials
      2. Resources for increasing knowledge of or skills in preservation, stabilization, or conservation methods

There are classes available for adding some skills to a collection manager’s repertoire, such as surface cleaning, rehousing, basic mends. It is important to maintain continuing education via trusted sources, as there is a lot of misinformation out there on the web. A great resource is the NEDCC’s Preservation 101 course. Most archives and preservation sections of museum, library and archives professional associations, like AAM, have vendor and educational resources, along with email lists or forums for discussion. One such organization is Connecting 2 Collections.

6. What do you charge for your services?
I charge by the project estimated based on an hourly rate of $125, a daily rate of $950, and a minimum of $250. This fee is often subject to negotiation due to a large number of flexible factors. The fee includes before and after photos, sometimes with raking, transmitted or UV light, intensive examination and documentation, hours of treatment along with materials used, packaging, sometimes shipping, and such overhead as rent, utilities, business and fine art insurance, accounting, taxes, and all the other aspects of running a professional service business.

7. Is there any literature you could recommend related to this topic?

The AIC (American Institute for Conservation) website is quite informative, with lots of links to other resources. Other international conservation websites include ICCROM104 and CCI. YouTube has tons of videos of people doing conservation treatment, some great, some not so much. There is an AIC conservation YouTube channel.

8. Are there any stabilization techniques that you would be willing to demonstrate (after interviewing collections managers, I may have requests for specific techniques)? What should not be attempted?

I think it is very important to get quite a bit of training and reading under one’s belt before attempting any treatment as there are a fair number of nuances that can suddenly or slowly cause problems - for example, while surface cleaning is generally considered to be “safe”, selecting the right kind of eraser for the type of paper surface and media is very important so as not to damage surface texture or coatings.

104 International Centre for the Study of the Preservation and Restoration of Cultural Property
a. If so, would you be willing to have me visually document a demo and publicly distribute the gathered information?

I will not have the time to do so, and refer you to the large number of videos already available.

9. Do you consent to the information you have provided being used in my Master’s thesis?

a. Do you consent to the information you have provided being publicly distributed?

Yes, but I would like to be notified of any publications and provided access to it. In the event that you paraphrase or reword anything I’ve written, please give me the opportunity to approve it. Thanks and good luck!

Date: January 25, 2018

Phone interview with Paulette Reading, Textile Conservator

Veronica: [00:00:00] So if we could start by you just please stating your name job title and organization?

Paulette: [00:00:07] Sure. Paulette Reading I'm a textile conservator in private practice. Is that it?

Veronica: [00:00:13] Yeah, yeah that's great. Could you tell me about your background and training, including how long you've been working as a conservator?

Paulette: [00:00:24] Okay, I've been in private practice for about ten years with my textile conservation business. Before then I was at the Denver Art Museum for several years. I did my graduate training in Art Conservation at the Buffalo program.105 And I probably, you know, with pre-program work and everything did about 15 years that I've been in conservation, including

105 Buffalo State, The State University of New York
graduate school.

**Veronica:** [00:00:54] And your main focus you said has been textile conservation?

**Paulette:** [00:00:58] Textiles and objects, I also majored in textiles and organic objects.

**Veronica:** [00:01:03] Okay.

**Paulette:** [00:01:03] But now, since I've been in private practice, just focusing on textiles because it's simpler, you know, to just focus on one thing.

**Veronica:** [00:01:16] Right. So that answers my second question- what type of objects you focus on? So, textiles.

**Paulette:** [00:01:21] Uh huh. I mean, I'll work on, you know, feathers and you know sometimes other things but I collaborate with a objects conservator, Judy Greenfield, quite a bit.

**Veronica:** [00:01:31] Okay.

**Paulette:** [00:01:31] So if it's something that's more in her jurisdiction, you know, there's crossover. We've had some treatments that are composite treatments and I'll work on the fur, sometimes she'll do the fur. Just depends on what we feel like I guess, or you know, who has time or where if it's more stitch repair I'll do it, that type of thing.

**Veronica:** [00:01:53] OK. Yeah I actually interviewed Judy a while ago as well. So you guys – I guess this is sort of a tangential question then – so you are both on the, what is it, Mountain States -

**Paulette:** [00:02:10] Mountain States Art Conservation, yeah so we are just you know, we're conservators in private practice, but many years ago we just, none of us had time to sort of get a website going and things like that. So we just kind of set up an informal, I guess association you
would call it. So we basically share a website, and what's nice about it is, you know, if ever I have a question about something or, you know, maybe need to borrow or buy or need some adhesive that I rarely use but only need a small amount, you know, I can ask one of them and it seems like less of a favor. You know what I mean? Cause we have this sort of- and even just calling, of course you know other colleagues are very generous with their time and talk to you. But it always feels like more of an imposition, you know, to call someone during their work day and be talking for treatment. So, that's sort of how it's worked out.

Veronica: [00:03:07] OK, cool. So what are some of the most common materials that you use in your practice?

Paulette: [00:03:17] I guess most of the repairs that I do are like stitch repairs often using sheer fabrics, Stabletex, organza's, Crepeline, fill Crepeline depends on the treatment. Occasionally, you know, things come up where I'm doing adhesive repairs, but not as much, it just depends.

Veronica: [00:03:46] Okay.

Paulette: [00:03:47] And then, you know, there's some cleaning I don't, I mean I do clean textiles, a lot of dry surface cleaning sometimes I wet clean textiles, you know, spot clean, stain removal. Although just for my own health and safety, I tend to shy away from treatments that involve use of a lot of solvents or different, like, chemicals that are harmful. I've developed, like, skin sensitivities over time so I just, I kind of turn those things away.

Veronica: [00:04:23] Okay.

Paulette: [00:04:24] However, I will say I just went to a workshop about cleaning, like, conductivity and use of gels and adjusted waters for cleaning, and so that's something that I might, that I'm planning on doing a little more research on because it seems like just options for,
you know, some overall cleaning or different cleaning methods using, like, waters that are
adjusted just from their electrical conductivity and pH. So it kind of minimizes the use of even,
just, surfactants and detergents. And the use of gels is very controlled, so you're not flushing
things as much using solvents. So that's something I may do more of, but.

Veronica: [00:05:19] When dealing with a damaged object, at what point should a collections
manager contact a conservator, in your opinion?

Paulette: [00:05:29] I think it's something, you know, if it was observed that something is
happening ongoing, like if there was a change in condition, or if they really can't move it or feel
like they can move it or pick it up safely. I think if something's to go on loan or on exhibit and
it's, you know, at all fragile, or any question about that.

Veronica: [00:06:06] Okay. What do you recommend if a museum is unable to hire a
conservator for a damaged piece?

Paulette: [00:06:18] It's such a general question. I guess it depends on, you know, what they're
wanting to do with the piece, if it's just sitting in storage or, I mean I would say just store it
properly and maybe not put it on loan or exhibit if there's concern that it will be damaged. But
you know that, of course that depends on a lot of things.

Veronica: [00:06:45] Okay, what do you charge for your services?

Paulette: [00:06:51] A hundred dollars an hour. And sometimes if it's a larger project for
institutions it will be more like probably a bid per project.

Veronica: [00:07:04] Speaking to your area of material focus, what simple stabilization or
conservation techniques, if any, do you think a collections manager should be capable of or feel
comfortable performing?
Paulette: [00:07:18] You know, again I think it depends on the background. I've worked with collections managers that have, you know, some background in, like, textile arts or sewing and doing like a basic stitch repair would probably be fine. You know, if there's a big tear, or an open seam or something like that on an object. I think it just depends on the background of the collections manager. I mean maybe you know vacuuming or, you know, basic preservation.

Veronica: [00:07:57] Okay. Sorry, I'm also typing up some notes as well.

Paulette: [00:08:01] Okay. I mean I'm sure you're familiar with, like, the CCI notes and Conserve O' Grams and things like, you know, anything that one finds on those sites. You know AIC has links as well to different things and some of them are just for conservators in the specialty groups, but that would be an option too, especially if it's a collections manager that really doesn't have access to either funding or conservators aren't available or whatever. There are also online courses through SAIC\textsuperscript{106} or other places. I don't know if you know about this, I don't know too much about them, but there's this place called MuseumStudy.com, they offer courses.

Veronica: [00:08:54] Okay.

Paulette: [00:08:54] And it's run by conservators and, you know, very credible collection museum professionals and they offer online services, like courses.

Veronica: [00:09:07] Cool. Yeah I haven't heard of that.

Paulette: [00:09:12] I don't know how much it costs but, you know, probably training or taking a course in something for a collections manager that's going to be somewhere on the long term it's probably the same as treating the one object, you know what I mean?

\textsuperscript{106} Not sure what Paulette is referencing here.
Veronica: [00:09:25] Right.

Paulette: [00:09:25] And even something like that could help inform, you know, when you really need to call conservator. The more you know the more you realize you're sort of out of your element I guess.

Veronica: [00:09:39] Right. So do you have any recommendations for suppliers of materials? And then you mentioned a few just now but resources for increasing knowledge of, or skills in preservation, stabilization or conservation?

Paulette: [00:09:59] Yeah, I think for courses there are those, there's also - I mean there are others too. There's lots of continuing education courses not just for conservators, but for museum professionals. And I, and you know just being a member of the AIC, or being on the Conservation DistList\textsuperscript{107} is that – I don't know if you know that, but there are classes that get posted all the time and more and more people are putting out like, vlogs, like video blogs.

Veronica: [00:10:33] Yeah.

Paulette: [00:10:33] Like the Smithsonian has how to roll a textile, how to, you know I think, is it the Minnesota Historical Society? They have a bunch of them to. You know a lot of the same material that you find in the Conserve O' Grams, but on video.

Veronica: [00:10:52] Yeah.

Paulette: [00:10:54] So those are really helpful and I wouldn't be surprised if more and more of those pop up.

Veronica: [00:10:59] So is that like a more recent thing that you see happening or has that sort

\textsuperscript{107} Project of the Foundation of the American Institute for Conservation of Historic & Artistic Works – a listserv that issues posts twice a week in order to promote understanding about conservation.
of been around for a while?

**Paulette:** [00:11:08] I think it's been around, but more people are doing it. I mean even
conservators in private practice will have links to things or put up videos of their own.

**Veronica:** [00:11:21] And then do you have recommendations for suppliers of materials?

**Paulette:** [00:11:29] Let's see, I mean most of my storage and collection supplies I guess I get
from Gaylord or University Products, Talas, you know, a lot of conservation supplies from there.
I think I get my Crepeline from there. Test Fabrics is where I buy most of my mounting fabrics.
But the Stabletex, which is a sheer polyester, it's not available in the US anymore so there's a
London supplier where I buy/you could still get some of it. And there's a special, like a nylon net
that I'll use in conservation. But again, it's so expensive and it's this supplier in England, it's
probably not something that, you know, not a conservator would buy.

**Veronica:** [00:12:25] Right. Okay, so my next question: Are there any stabilization techniques
that you would be willing to demonstrate?

**Paulette:** [00:12:35] Yeah, stabilization techniques... That's tricky because every piece is
different. So, you know, that’s, I think that's sort of the danger of showing repairs in
stabilization, like you know, either vlogs or this type of thing because, you know, one type of
stitch could be used for- even if it's a tapestry, and then you may have another tapestry that's
almost identical but for whatever reason isn't, you know? So you would have to know enough to
make adjustments. So I think even with all of these resources, there's sort of a line between – I
think the goal would be to teach something so that one would know when to call someone more
than teaching conservation. If you're using the correct materials, most stitch repairs are reversible
and, you know, are not going to cause damage, but they can. I mean I've seen, you know, at this
point in my career I've undone enough very well-meaning repairs and mounting and things that serve to be more cautious about... I get calls even, you know, from private clients too who clearly are just wanting to figure out how to repair something or clean something on their own. And I don't want to be liable for someone, to give out advice and then things go wrong.

**Veronica:** [00:14:12] So the next part of that question is would you consider allowing me to visually record a demonstration, so photograph or video record, that would potentially be publicly distributed?

**Paulette:** [00:14:26] Yeah I think it depends on what we're doing – like something that is done in collections all the time, especially something that seems as simple as, like, vacuuming textiles. But again, most of the time I'll go in and people will be like, 'Oh we always use the screen' well, it doesn't necessarily – so maybe like viewing a video about something like that, like when to use the micro attachments or when to use brush attachments or when to use a screen or when to wear gloves, and all those different considerations, something like that. Maybe talking about the materials for repairs, or something like, maybe an open seam but it would have to be- I guess there would be a lot of 'this is what to look out for,' than 'this is how you repair this one thing.'

**Veronica:** [00:15:25] Okay.

**Paulette:** [00:15:25] Maybe, things to consider, like if you have a costume collection, what are the things you need to think about for, if you're going to store them hanging or if they should be in a box and things like that. But I think a lot of that it again is addressed in/you can find that in some of the Conserve O' Grams and CCI Notes.

**Veronica:** [00:15:48] Do you have anything that you want to specifically call out that should not be attempted by non-conservators?
**Paulette:** [00:15:55] I would say any kind of wet cleaning.

**Veronica:** [00:15:58] Okay.

**Paulette:** [00:15:59] Or. Yeah.

**Veronica:** [00:16:08] Okay.

**Paulette:** [00:16:08] Or stain removal, or yeah. Probably adhesive repairs, not a good idea.

**Veronica:** [00:16:16] Okay. One of the things that one of the collections managers I spoke with had mentioned was they did this big textile re-housing project and finding textiles that have small tears, is that something that a collections manager should even try to stabilize or should a conservator be called for something like that?

**Paulette:** [00:16:43] I mean, again I think it depends on the background of, you know, the comfort level of that collections manager.

**Veronica:** [00:16:56] Right. Okay.

**Paulette:** [00:16:56] And yeah, I mean and again maybe it might make sense, like if someone's comfortable, they could thread a needle and are familiar with the materials, maybe at least consulting a conservator and just talking about what types of materials to use and what types of stitches. Because even a bad, sort of an ugly stitch repair a lot of times, they may be unsightly, but it can still hold it together and prevent further damage from snagging or tearing. So again I'm thinking in my head, I've seen a lot of sort of, like, what we've called like Frankenstein stitch repairs or something with a really chunky yarn or whatever, but it probably did help stabilize it over the years as, you know, being held and that can always be undone, usually. Sometimes it damages the artwork. But if one's sensitive about it with some knowledge then I think so, because when things are torn in the collection there's a really good chance of just snagging it
accidentally and making it much, much worse.

Veronica: [00:18:11] Right. So my next question. I'm considering presenting some of my research and thesis work at the Colorado-Wyoming Association of Museums conference in the spring and I'm thinking about recruiting conservators for a kind of workshop component in which they might teach a stabilization technique or, like you mentioned, discuss certain things like materials and when to do what, or when not to do anything. Is that something that you might be interested in being involved in?

Paulette: [00:18:46] Yeah I would. I think that would be great especially if – when I've done outreach things before, the biggest question is, what do people want to know? Right? So if you're doing all of that work like you just said, like these types of stabilization things, like, I think that could be really helpful. You know? I mean I think compiling all that information like you're doing from collections people, like where are the gaps, or what do you want to know?

Veronica: [00:19:13] Right.

Paulette: [00:19:15] Yeah, I think that's really valuable.

Veronica: [00:19:19] Okay. Is there any other-

Paulette: [00:19:19] Isn't there, I was just thinking, I can't remember what the website is, but there is some kind of website that connects, where people can post question that connects like museum professionals, and conservators are on there too.

Veronica: [00:19:35] There's been- people have recommended a lot of different stuff to look at. One of the most recent things was the Sustainable Heritage Network. I don't know if that, if you can post questions on there or not. Yeah, I'll have to go back and look at the different things that people mentioned. But that was one of the most recent ones, but I'm not sure about if you can
post questions on there.

Paulette: [00:20:00] Yeah, I thought there was something that was, gosh, oh shoot, I wish I had. I probably should just, because I saw and I was like oh this would be interesting for Veronica, and I literally should have just emailed it to you right then, cause now I've like lost..

Veronica: [00:20:12] Well if you think of it.

Paulette: [00:20:12] But I thought it was something where people would, you know, post questions and then people in different areas could then answer, you know, respond to certain questions.

Veronica: [00:20:25] Yeah I know that there are things, like, like SPNHC for natural history collections where people can interact like that. But that's one that-

Paulette: [00:20:34] Oh do they? That's interesting. AIC should really have something like that. But not for, like, everybody maybe just for museum professionals, you know, cause you don't want to have everyone who finds, you know, grandma's quilt.

Veronica: [00:20:51] Right.

Paulette: [00:20:51] You know, posting questions is kind of hard so.

Veronica: [00:20:52] Yeah. I'll have to look back through my notes, because I feel like there probably is, but I can't remember off the top of my head now. Yeah there seems to be just a lot of stuff out there, spread across a lot of different sites.

Paulette: [00:21:10] Right. That we don't all know about yet.


Paulette: [00:21:13] So it's just kind of getting the word out. And if these smaller efforts can be
connected to, like, organizations like AIC or like, I don't know, even things like CWAM and different places where people have memberships and then they can go from there.

**Veronica:** [00:21:40] Yeah. Yeah that's part of what my project is, is talking to people and seeing what they know about already and then hopefully creating something that brings these resources together. And I don't know if I'll be able to publish this anywhere. But yeah, kind of creating something that has all the information in one spot so that people can know about where to look for more information about stuff.

**Paulette:** [00:22:18] I don't know it seems like, I mean that, yeah that sounds great. And even if you're not publishing it cause things change so much, like just giving talks at the different, you know, like AAM or whatever, you know, at different conferences.

**Veronica:** [00:22:34] Right.

**Paulette:** [00:22:35] But it seems like, I don't know, just as a user I feel like if there were more links from websites that I'm already using.

**Veronica:** [00:22:45] Yeah.

**Paulette:** [00:22:45] Like you said like with SPNHC, you know? If they could link to something more central, but if it's somehow connected to the professional organizations that already exist.

**Veronica:** [00:22:57] Right.

**Paulette:** [00:22:58] And connect people that way, because I think it's mostly conservators who just belong to AIC and use who AIC, but it doesn't have to be that way. I mean there could be an interface that's for other museum professionals or that at least connects – you know and I mean? Like why not? Just a link to, you know- I know it's not simple, but that would be an idea. Or you know WAAC, which is the Western Association for Art Conservators.

Paulette: [00:23:28] I'm sure collections managers probably have their own things, right? Like as much as AAM, I don't know.

Veronica: [00:23:39] Yeah, I don't think there are a ton, but there's definitely some stuff out there. And a lot of what people have talked about it like the National Park Service Conserve O' Grams is, I think, one of the main resources that people go to.

Paulette: [00:23:50] Yeah, and the, and the CCI notes, do you know those? Like the Canadian Conservation Institute-

Veronica: [00:23:53] Yeah, yeah that is something people have mentioned.

Paulette: [00:23:58] But I've also noticed that the Smithsonian has been putting out more and more.

Veronica: [00:24:02] Okay.

Paulette: [00:24:02] But again, it's not central, you know it's some museums at the Smithsonian. And the Minnesota Historical Society has, for years, been putting out -

Veronica: [00:24:13] Right. Yeah that's another one.

Paulette: [00:24:15] Pamphlets. And yeah, and they're doing more online stuff too.

Veronica: [00:24:20] So that's kind of my next question is, is there any literature that you could recommend related to this topic or websites or anything?

Paulette: [00:24:29] Yeah, yeah I guess all that stuff.

Veronica: [00:24:34] Yeah. And then my final question -

Paulette: [00:24:35] And, you know I would say for collections managers who are faced with
those issues, I think just becoming a member of AIC might be really useful because there are a lot of collections management, preservation, pest management, like all kinds of collections – you know, just be a member through the preservation subgroup. There’s a lot more crossover, I think, than we, than they might realize.

Veronica: [00:25:18] Uh huh. All right, so my last question is do you consent to the information you have provided being used in my master's thesis?

Paulette: [00:25:25] Yes.

Veronica: [00:25:26] And do you consent to the information you've provided potentially being publicly distributed?

Paulette: [00:25:32] Yes.

Veronica: [00:25:34] Great. So that's all that I have on my actual questionnaire. Is there anything else that you want to add at all?

Veronica: [00:25:46] No, but I'd love to see, like, you know a copy of it.

Paulette: [00:25:49] Sure. When you're finished or something.

APPENDIX H: CWAM Session Information and Materials

Session title and description:

Can I Clean That? Conservation Basics for Collections Managers

Need conservation work, but short on your budget? Unsure of how to stabilize a broken object? During this session, you will learn the basics of conservation for collections managers. Learn skills such as: how to clean 3D objects, how to mend a simple paper tear, innovative ways to house and stabilize textiles, and more! Find out about cheap archival materials to always have on hand, and where to find other helpful resources.

Presented by Veronica Rascona, Master’s Candidate in Museum and Field Studies at the University of Boulder, and Emma Noffsinger, Master’s Candidate in Museum and Field Studies at the University of Boulder.

The following are copies of two of the handouts that were created for the session. A third handout was created that pulled definitions of condition reporting terminology from the book, Basic Condition Reporting: A Handbook, but is not included here for copyright purposes.

Conservation Resources for Collections Managers

Websites and Organizations

- Conservation OnLine (CoOL) (http://cool.conservation-us.org/)

  Western Association for Art Conservators (WAAC) (https://cool.conservation-us.org/waac/)

- Museum Study (http://www.museumstudy.com/)

- MuseumPests.net
• International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM) ([https://www.iccrom.org/](https://www.iccrom.org/))

• The International Preservation Studies Center ([http://www.preservationcenter.org/](http://www.preservationcenter.org/))

• Minnesota Historical Society ([http://www.mnhs.org/](http://www.mnhs.org/))

• Northeast Document Conservation Center (NEDCC) ([https://www.nedcc.org/](https://www.nedcc.org/))

• Image Permanence Institute (IPI) ([https://www.imagepermanenceinstitute.org/](https://www.imagepermanenceinstitute.org/))

• AATA Online: Abstracts of International Conservation Literature (Getty Conservation Institute) ([http://aata.getty.edu/Home](http://aata.getty.edu/Home))

• Northern States Conservation Center ([https://www.collectioncare.org/](https://www.collectioncare.org/))

• Regional Alliance for Preservation (RAP) ([http://www.rap-arcc.org/](http://www.rap-arcc.org/))

  Western States and Territories Preservation Assistance Service (WESTPAS)

• Preparation, Art Handling, Collections Care Information Network (PACCIN) ([http://www.paccin.org/content.php](http://www.paccin.org/content.php))

• American Institute for Conservation (AIC) ([http://www.conservation-us.org/](http://www.conservation-us.org/))

  Caring for your Treasures (downloadable guides through main website)

  Connecting to Collections Care (C2C) ([https://www.connectingtocollections.org/](https://www.connectingtocollections.org/))


  CCI Notes (conservation information by topic)
- Smithsonian Museum Conservation Institute (https://www.si.edu/mci/index.html)

- National Parks Service


  Conserve O’ Grams

  Museum Handbook

  National Center for Preservation Technology and Training (NCPTT) (https://www.ncptt.nps.gov/)

  Western Archeological and Conservation Center (WACC) (https://www.nps.gov/orgs/1260/index.htm)

**YouTube and Blogs**

- Inside the Conservators Studio (http://insidetheconservatorsstudio.blogspot.com/)

- AIC Conservation YouTube channel (https://www.youtube.com/channel/UCZx2agEj577i_pJz0nM8WWw)

**Listservs**

- Registrars Listserv through the American Alliance of Museums (AAM)

- FAIC: Conservation DistList (http://cool.conservation-us.org/byform/mailing-lists/cdl/)

**Books**

- *How to Identify Prints*, by Bamber Gascoigne

- *The Care of Prints and Drawings*, by Margaret Holben Ellis

• Conservation Concerns: A Guide for Collectors and Curators, by Konstanze Bachmann

• Museum Registration Methods 5th Edition, by Rebecca A. Buck and Jean Allman Gilmore

• Preserving What is Valued: Museums, Conservation, and First Nations, by Miriam Clavir

• Caring for American Indian Objects: A practical and Cultural Guide, by Sherelyn Ogden

Material Vendors

• Gaylord

• University Products

• Talas

• Light Impressions

• Hollinger

• Uline

• Grainger

• Joann fabrics

• Hancock's of Paducah

• Universal Packaging

• Conservation Resources International*

• Kremer*

• Test Fabrics*
*In addition to preventative care supplies, these vendors also sell conservation grade supplies and equipment. It is not recommended that conservation grade materials be purchased or used without formal conservation training.

Conservation Tool Kits for Collection Managers

The following lists are materials we recommend for basic conservation practices. Lists are organized by type of object and offer suggested uses. General pricing is also described and alternative places of purchase are noted, if known.

Textiles Toolkit

Archival Tubes

- Archival tubes, which can be used to mount textiles for storage, can be purchased from most archival supplies vendors. If your institution has a woodshop, ordering 10 foot tubes and cutting them to appropriate sizes yourself, can save on costs.

Unbuffered tissue/Mylar

- If archival tubes cannot be purchased, non-archival tubes can be used and modified to house textiles. One method to retrofit non-archival materials is to wrap tubes in Mylar and unbuffered tissue. Unbuffered tissue (which can also be used to pad out folded textiles) can be purchased at most archival supplies vendors for a reasonable price. Mylar can be purchased at most archival supplies vendors. Mylar tends to be more expensive.

Soft Tyvek

- If archival tubes cannot be purchased, non-archival tubes can be used and modified to house textiles. Wrapping tubes in soft Tyvek is one method of retrofit non-archival
materials. Soft Tyvek can be purchased at most archival supplies vendors. Tyvek tends to be more expensive.

Holytex

- You may find that some textiles are extremely fragile and need additional support when rolling onto a tube. Sandwiching textiles between sheets of Holytex is a way to stabilize the textile until professional conservation treatments can be implemented. Experiments with Holytex have proven that Holytex can be used to print tags and attached to textiles as a permanent label. Holytex can be purchased at most archival supplies vendors. Holytex tends to be one of the most expensive materials.

Unbleached muslin

- Rolled textiles can be wrapped in unbleached muslin to protect textiles from light and dust. Scraps of muslin can be used as ties to secure rolled textiles to mounts. Muslin can be purchased from most archival supplies vendors but we would recommend comparing prices to fabric stores which tend to offer cheaper rates.

Twill tape

- Twill tape can be used as ties to secure rolled textiles. Twill tape can also be used to as a permanent tag by writing on tape and sewing to textile. Twill tape can be purchased for a reasonable price at most archival supply vendors.

Tyvek tags/Paper tags

- Removable tags can be attached to twill tape ties. Tyvek tags are more expensive than paper tags. Both can be purchased from any archival vendor for a reasonable price.

Blue board/Heritage Board
• Blue board / heritage board can be used to support small textiles that can be housed flat.

Blue board/ heritage board can be purchased from any vendor and can get expensive depending on size and quantity.

Polyethylene Foam

• Various types of polyethylene foams such as backer rod and open cell foam, can be used to support textiles that must be folded for storage. These types of foam can be purchased from most archival supply stores. Some local plastic supply companies also carry some types, such as backer rod, for a cheaper price. Tip: Volara can also be purchased from a local plastic supplier for a cheap price.

Polyester Batting

• Wrapped in muslin or tissue, polyester batting can be used to pad folds. It can also be used to create your own garment hangers, as well. Polyester batting can be purchased through archival supplies vendors but cheaper prices may be found at local fabric stores.

Low Suction Vacuum with Net Barrier

• To clean textiles, use the brush hand-held attachment and the low suction setting on a vacuum. Lay a small net barrier on textile to prevent on damage caused by suction.

Nilfisk brand vacuums are recommended as suction level can be adjusted.

Tweezers

• A nice pair of tweezers can assist in removing large pieces of debris from textiles. Take caution and do not remove materials that may have been intentionally woven into textile.

Tweezers can be purchased at a local Walgreen or CVS for a reasonable price.

3D Objects Toolkit
Soft Tyvek

- Can be used for building storage mounts to act as a protective barrier between foam supports and the object. Tyvek can be purchased at most archival supplies vendors and tends to be a bit more expensive.

Twill tape

- Can be used for storage mounts and boxes; it is archival and can be placed directly against certain objects for securing them in place. Twill tape can be purchased at most archival supplies vendors for a reasonable price.

Tyvek tags/Paper tags

- Used for numbering or labeling objects. Removable tags can be attached to twill tape ties. Tyvek tags are more expensive than a paper tags. Both can be purchased from any vendor for a reasonable price.

Soft-Bristle Brushes

- Make-up brushes or Hake brushes can be used for surface cleaning; Hake brushes can be purchased in different sizes from a variety of art supply stores. Soft make-up brushes are a cheaper alternative. Tip: do not use soap to clean brushes, and do not use on materials with a friable surface.

Cosmetic Sponge (latex-free)

- These can be purchased from Amazon or cosmetic supply stores for very cheap, and can be used to dust objects by lightly dabbing the surface. Tip: do not use soap to clean, and do not use on materials with a friable surface.
Giotto puffer

- These are good for dislodging dust from objects; use in conjunction with a low-suction vacuum with a net barrier so that dislodged dust particles are continuously cleaned away. Tip: Giotto puffers can be purchased for about $10 from Amazon.

Low Suction Vacuum and Netting/Mesh Barrier

- A small piece of netting or mesh placed over a vacuum hose acts as a barrier between object material and vacuum; it can be easily attached to a vacuum hose using a rubber band. Nilfisk brand vacuums are recommended as suction level can be adjusted.

Blue board/Heritage board

- Blue board/heritage board are both archival and can be used for building storage mounts and boxes. Blue board/ heritage board can be purchased from any vendor and can get expensive depending on size and quantity.

Polyethylene Foam and Backer Rod

- Used as padding in storage supports, polyethylene foam blocks can be cut to custom fit collections objects, although a barrier should be used between the foam and object. Backer rod is also used in storage mounts, and is good for making pot rings; ends can be easily connected to form rings using twill ties or heat-applied adhesive. Polyethylene foam/backer rod can be purchased from most archival supply stores, as well as certain local plastic supply companies. Tip: unbuffered tissue can be used as an alternative for padding if a sturdier support is not needed.

**Works on Paper Toolkit**

Holytex/Interleaving paper/unbuffered tissue
• Sheets of Holytex are used to separate works on paper in stacked storage. Holytex, interleaving paper and unbuffered tissue are all archival, although they vary in staticity and each should be used depending upon friability of the media.

Mylar

• Comes in sheets and is used for photo or document encapsulation. Mylar is expensive, but can be purchased for cheaper if bought in bulk on a roll.

Staedtler vinyl erasers

• Safe for use on sturdy papers for surface cleaning. One technique is to use grated eraser gently rubbed onto the paper surface to remove grime or pencil markings. Can be purchased from most art supply stores or archival suppliers.

Soft Brushes

• Different brushes can be used for surface cleaning; Hake brushes are soft-bristle brushes that can be purchased in different sizes depending upon the object you are working with and can be purchased from a variety of art supply stores. Soft make-up brushes are a cheaper alternative that can also be used. Tip: Do not use soap to clean brushes, and do not use on materials with a friable surface.

Document boxes/Archival Folders/Hinged Window Mats

• All of these are meant to minimize handling of artworks, and can be purchased from archival supply vendors. Conservation supply vendors have a more robust list of options compared to archival supply vendors.

Japanese Paper and Wheat Starch Paste
Japanese paper with wheat starch paste adhesive is used for creating hinges for mounting works on paper on support mats, mending tears, and lining damaged works on paper. Although these are typically safe materials, unless you are very familiar with different types of papers, it is recommended to consult with a conservator before attempting anything using adhesives and solvents.

Conservation Standard Photo Corners

Used for keeping works on paper in place when stored in hinged mats. Can be purchased from art supply stores; can use paper or plastic depending upon the stability and thickness of the paper, and should be acid-free and lignin-free.